



Refurbishing Music Building RO System

TCNJ Advertised Bid # AB260001

COVER SHEET

INVITATION TO BID

CONSTRUCTION BID PROPOSAL FORM

MANDATORY DOCUMENTS

CONTRACT

GENERAL CONDITIONS

GENERAL WORK DESCRIPTION

MANUAL/DRAWINGS

July 9, 2025



Please place the following advertisement in the Legal Section of Classified Advertising. Please ensure that the invoice for this advertisement is prepared and an affidavit forwarded to The College of New Jersey, Office of Finance and Business Services, Administrative Services Building, Room 201, P.O. Box 7718, Ewing, NJ 08628-0718.

To be published on **July 9, 2025 in the Trentonian**. Contact person regarding placement of ad is Lauren Manning (609) 771-2894.

**THE COLLEGE OF NEW JERSEY
ADVERTISEMENT FOR BIDS
BID #AB260001**

Under the provisions of the State College Contracts Law, Chapter 64 of Title 18A, The College of New Jersey will receive sealed bids for the **Refurbishing Music Building RO System** until **2:00 P.M. on the August 5, 2025** at The College's Office of Finance and Business Services, Administrative Services Building, Second Floor, Room 201, Route 31 (Pennington Road), Ewing Township, New Jersey. At 2:00 P.M. all bids will be publicly opened and read in Room 203 of the Administrative Services Building.

The project will be bid as a Single Lump Sum.

No bidder may submit more than one bid.

Bid Documents may be obtained on/after **July 9, 2025 via our website (<https://bids.tcnj.edu/home/construction-projects/>)**.

A **pre-bid conference/on-site inspection** is scheduled on **July 16, 2025 at 9:00 A.M.** in the lobby of the Music Building, located on The College's Ewing Township, New Jersey campus on Route 31 (Pennington Road). While attendance is not mandatory, bidders are strongly encouraged to attend.

Bidders are required to comply with the requirements of P.L. 1975 c. 127 (N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17:27 - Affirmative Action); the New Jersey Prevailing Wage Act, N.J.S.A. 34:11-56.25 et seq.; N.J.S.A. 52:25-24.2, "Statement of Ownership Disclosure"; the Public Works Contractor Registration Act (N.J.S.A. 34:11-56.48 et seq.); the New Jersey Business Registration of Public Contractors provisions (N.J.S.A. 52:32-44) and all amendments thereto.

The College will award the contract to the lowest responsible bidder who satisfies the qualification criteria as set forth in the contract documents.

The College of New Jersey reserves the right to reject all bids or to waive any minor informalities in the bidding in accordance with law. No bid shall be withdrawn for a period of sixty (60) days subsequent to the opening of bids without the consent of The College of New Jersey.

The College requires that its contractors/vendors agree to take all necessary and responsible steps, in accordance with N.J.S.A. 52:32-17 et seq. and N.J.A.C. 17:13-1 et seq. to ensure that SBE's have these opportunities, as an aid in meeting the commitment of its SBE Programs and to ensure that DVOBs have these opportunities per N.J.S.A. 52:32-31.1 et seq. (P.L. 2015, c. 116) in meeting the commitment of its DVOB Programs.



Bid # AB260001
For: Refurbishing Music Building
RO System

Event	Date	Time
Pre-bid Conference and Site Visit at The College of New Jersey's Music Building	07/16/2025	9:00 AM
Question Cut Off Date (Refer to Bid Section # 2 for more information.)	07/21/2025	4:00 PM
Addendum Date (Refer to Bid Section # 2 for more information.)	07/23/2025	11:00 AM
Bid Submission Due Date (Refer to Bid Section # 3 for more information.)	08/05/2025	2:00 PM

Dates are subject to change. All times contained in the Bid refer to Eastern Time.
All changes will be reflected in Addendum to the Bid posted on the College's website.

Bid Issued By:

The College of New Jersey
Office of Finance & Business Services
Purchasing Department
Administrative Services Building, Room 201
2000 Pennington Road
Ewing, NJ 08628
Phone: (609) 771-2894
<https://bids.tcnj.edu/home/construction-projects/>
Assigned Purchasing Contact: Lauren Manning
E-mail: manningl@tcnj.edu

Date Issued: 07/09/2025
Fiscal Year: 2026

Required Procurement Documents & Bidder's Checklist

This bid proposal MUST be received by The College of New Jersey, Purchasing Department before or at 2:00 p.m. on Tuesday, August 5, 2025 at which time responses will be publicly opened and read. Any proposal arriving at the Purchasing Department after the submission due date and time will not be accepted.

The following Bidder's Checklist is provided as an aid to the bidder. It does not in any way relieve the bidder of its responsibility to ensure that its bid proposal is complete. It is the bidder's responsibility to ensure documents are submitted and that all requirements of the bid solicitation have been met.

Procurement Documentation & Bidder's Checklist		
FORMS, REGISTRATIONS, AND CERTIFICATIONS THAT MUST BE SUBMITTED BY THE BIDDER AT THE TIME OF SUBMISSION OF THE BID. FAILURE TO INCLUDE THE BELOW REQUESTED DOCUMENTATION MAY RESULT IN REJECTION OF BIDDER'S SUBMISSION.		
Required		Vendor's Initials next to each item submitted with proposal
X	Bidder Information	
X	General Agreement including Acknowledgement of Receipt of Addendum (if any issued)	
X	Cost Sheet	
X	Subcontractor Information Page	
X	Small Business, Minority and/or Female-owned Business Reporting	
X	Acknowledgement of Mandatory Equal Employment Opportunity Language for Construction Contracts (NJAC 17:27-1.1 et seq. - P.L. 1975 C.127)	
X	Completed Statement of Ownership Disclosure (N.J.S.A. 52:25-24.2)	
X	Completed Non-Collusion Affidavit	
X	Completed Vendor Qualification Sheet	
	Enclosed Certified Check, Cashier's Check or Bid Bond for ten percent (10%) of the amount of the bid	
	Copy of License (the license must be valid at the time of bid.)	
	Copy of latest Experience Modification Rating (EMR Safety Rating). The College requires an average rating over the last 5 years of 1.25 or less.	
FORMS, REGISTRATIONS, AND CERTIFICATIONS THAT MUST BE SUBMITTED BY THE BIDDER PRIOR TO AWARD (EXCEPT AS OTHERWISE NOTED BELOW).		
X	Completed Certification of Non-Involvement in Prohibited Activities in Russia (P.L. 2022, c.3)	
X	Completed Disclosure of Investment Activities in Iran (N.J.S.A. 52:32-58)	
X	Completed Federal Non-Debarment Certification (N.J.S.A. 52:32-44.1)	
X	Copy of Public Works Contractor Registration Certificate for the bidder and disclosed subcontractors (the certificate must be valid at the time of bid.)	
X	Proof of Affirmative Action Compliance - Initial Project Workforce Report, AA-201 (must be submitted after notification of award, prior to signing of the contract)	
X	New Jersey Business Registration Certificate (N.J.S.A. 52:32-44)	
X	Taxpayer Identification Request (W-9 Form)	
X	Certificate of Insurance	

THE COLLEGE OF NEW JERSEY
Construction Bid Proposal Form

Office of Finance & Business Services
Administrative Services Building, Rm. 201
2000 Pennington Road
Ewing, New Jersey 08628-0718

Bid Number: AB260001
Bid Due Date: August 5, 2025

Project Name: Refurbishing Music Building Reverse Osmosis System

BIDDER INFORMATION

Firm Name:

Telephone Number:

Contact Person:
Address:

Fax Number:

Email Address:
Federal I.D. Number:

SOLICITATION OF CONSTRUCTION BIDS

1. BID PROPOSALS ARE SOLICITED AS FOLLOWS:

- A.** Single Bid (Lump Sum) which combines all trades.
 - 1. The total number and types of trades are set forth in the Specifications.
 - 2. Bidder enters the Bid Price on the line provided on the Cost Sheet.
 - 3. Pursuant to the requirements of N.J.S.A. 18A:64-76.1., bidder lists the names of the subcontractors on the Subcontractor Information page.

2. THE SCOPE OF WORK INCLUDES:

- A.** To safely and efficiently refurbish and restore two existing reverse osmosis (RO) systems to their original design specifications and full operational capacity, ensuring reliable performance, regulatory compliance, and water quality standards.
- B.** See Specifications and Drawings for Details (included in Bid package).
- C.** The College may issue Addenda or Clarifications which may include additions to or deletions from the scope of work; changes to the Specifications, Drawings, and proposal form; and clarifications of requirements. Bidder is advised to review all Addenda and/or clarifications carefully, and shall note the receipt of same with their bid package.

GENERAL INSTRUCTIONS AND REQUIREMENTS

1. PRICES

- A. Bidder submits prices for the Base Bid and any Alternate Proposals and Unit Prices which are listed for the contract of the bid. If there is no cost associated with the Alternate or Unit Price, bidder is required to enter "0.00" or "no change".
 - 1. Prevailing wage rates apply (Mercer County).
 - 2. Bid is to remain good for sixty (60) days after the Bid Due Date.

2. QUESTIONS

- A. Direct inquiries and correspondence relating to this proposal form and questions regarding the technical specifications and requests for clarification must be submitted in writing via **email to manningl@tcnj.edu** and must be received **prior to 4:00 PM on July 21, 2025**.
- B. Should any questions be received, the notice of revisions or addenda to advertisements or bid documents relating to bids shall be published in a legal newspaper or newspapers no later than seven days, Saturdays, Sundays and holidays excepted, prior to the bid due date. The notice shall be provided to any person who has submitted a bid or who has received a bid package, in one of the following ways: in writing by certified mail or (b) by certified facsimile transmission, meaning that the sender's facsimile machine produces a receipt showing date and time of transmission and that the transmission was successful or (c) by a delivery service that provides certification of delivery to the sender.
- C. The addendum or clarification will be available on **July 23, 2025 on the College's website at <https://bids.tcnj.edu/>**. **If an addendum and/or clarification is posted, it SHOULD be noted in the General Agreement section of the bidder's proposal. Failure to do so may subject Bidder to disqualification.**

3. HOW TO SUBMIT THE COMPLETED CONSTRUCTION BID PROPOSAL FORM

- A. Bidder places all pages of the completed form and the requisite additional documents in an envelope, seals the envelope, and labels it with his/her firm name, address, and "Sealed Bid Enclosed for (**Bid Number and Project Name**)".
- B. Bidder mails or deliver by hand the sealed bid, no later than **2:00 p.m., August 5, 2025**, to The College of New Jersey, Attention: Lauren Manning for (specify the Bid Number), Office of Finance & Business Services, Room 201, 2000 Pennington Road, Ewing, New Jersey 08628-0718. **At 2:00 p.m., all bids will be publicly opened and read in Room 203 of the Administrative Services Building.**
- C. Contractors are advised that the U.S. Postal Service and all express mail companies deliver to The College's Mail Room or Receiving Department, not directly to the Office of Budget & Finance. The College is not responsible for lost or misdirected bids.

4. BOND REQUIREMENTS AND SURETY STANDARDS – NOT APPLICABLE

- A. A bid guarantee is required in the amount of 10% of the total bid. Bid guarantee shall consist of a certified check or cashier's check to the order of The College of New Jersey, or an individual or annual bid bond issued by an insurance company or surety company authorized to do business in the State of New Jersey. The successful bidder must submit a Performance and Payment Bond equal to 100% of the contract. A completed Surety Disclosure Statement and Certification must accompany the Performance and Payment Bond.
 - 1. The Performance and Payment Bond form and a sample Surety Disclosure Statement and Certification form are included at the end of this Construction Bid Proposal Form.
- C. All bid deposits shall be returned within three (3) days, Sunday and holidays excepted, after the awarding of the contract and the approval of the successful bidder's performance bond, if any, the bid guaranty of the remaining bidders shall be returned to them.
- D. Should the successful bidder fail to enter into said contract after acceptance of bid by the College, then the check or security deposited by that bidder shall, at the option of the College, be retained as liquidated damages, or if Bid Bond has been supplied, principal and surety shall be liable to the amount of the Bid Bond.
- E. Attorneys-in-fact who sign bid bonds or contract bonds must file with each bond a certified copy of their Power of Attorney to sign said bonds.

- F. Contractor shall provide a Maintenance Bond at job completion for a period of one year for 100% of the final contract price.

5. LICENSES, CERTIFICATIONS, REGISTRATIONS, QUALIFICATIONS

- A. The bidder or, as applicable, its subcontractors shall at the time of bid have those required licenses, certifications, registrations, qualifications and the like ("LCRQ") listed below and shall present satisfactory evidence thereof upon request of the College prior to award.
- B. The selected bidder/contractor or, as applicable, its subcontractors shall have and shall present satisfactory evidence of all other required LCRQ noted in the Specifications after execution of contract during the submittal process and prior to the start of the applicable work, unless otherwise requested by the College or a date or event specified for that LCRQ in the Specifications.

6. SUBCONTRACTORS

- A. Pursuant to the State Colleges Contract Law, N.J.S.A. 18A:64-76.1, all bids submitted shall set forth the names and license numbers of all subcontractors to whom the bidder intends to subcontract the plumbing and gas fitting work; the refrigeration, the heating and ventilating systems and equipment; the electrical work, including any electrical power plants; tele-data, fire alarm, or security systems; the structural steel and ornamental iron work. The Subcontractor Information sheet is provided for this purpose.

7. CERTIFICATE OF INSURANCE

- A. The bidder is required to submit proof of liability insurance in accordance with The College's contract.

8. ACCEPTANCE/REJECTION OF BIDS

- A. Pursuant to State College Contract Law, Contracts shall be awarded to the lowest responsible bidder whose bid, conforming to the invitation for bids, will be the most advantageous to the State college.
- B. Any award made to the bidder by the College, shall bind the bidder and the bidder's heirs, executors, administrators, successors or assigns.
- C. Award of contract shall be made to the lowest responsible bidder, whose bid, conforming to the invitation for bids, is the most advantageous to the College.
- D. The award of the contract or the rejection of the bids shall be made within sixty (60) days of the date of receiving bids, unless written extensions are requested by the College and accepted by the bidder(s). All bid securities shall be returned immediately if all bids are rejected. The successful bidder(s) to whom the award is to be made will be notified by receipt of a written "Intent to Award" from the College.
- E. When award of contract is made in one fiscal year with effective date in the next fiscal year, award shall be contingent upon the availability and appropriation of sufficient funds for that purpose for the year in which said contract takes effect. When a contract shall be awarded for a period in excess of one year, said contract shall be contingent upon the annual availability and appropriation of sufficient funds for that purpose for each year of the contract term.

9. VENDOR RIGHT TO PROTEST-INTENT TO AWARD

- A. Bidders have the right to protest the College's proposed award of the contractor as announced in the notice of intent to award. Unless otherwise stated, a bidder's protest must be received no later than 5-business days after the date on the notice of intent to award. Bidder's protest must be in writing and delivered to the College's Purchasing Department via email. The protests must include the specific grounds for challenging the award. Within one week of receipt of the written protest, the College's Purchasing Director shall give written notification of the College's acceptance or rejection of the protest.

10. WITHDRAWAL OF BIDS

- A. A written request for the withdrawal of a bid, or any part thereof, will be granted if the request is received by the College prior to the specified time of the bid opening.
- B. Should the bidder refuse to perform the work for the price provided, they will forfeit their bid security.

11. BID COMPLIANCE

- A. Bidders desiring to modify TCNJ's general conditions of the construction contract must submit the proposed modifications within the question period set forth in Section 2 or such modifications will not be considered by the College.
- B. Any bid not prepared and submitted in accordance with the provisions described herein may be rejected by the College. Any bid received after the time and date specified will not be considered. No bidder shall withdraw a bid within sixty (60) days after the date of the bid opening. Contracts shall be awarded to the lowest responsible bidder whose bid, conforming to the invitation for bids, will be the most advantageous to the State college
- C. Any bidder who has defaulted on any contract with the College or any other State Agency may be considered as not responsible and their bid may be rejected. THE COLLEGE OF NEW JERSEY reserves the right to exercise this option, as the College deems proper and/or necessary in accordance with applicable law.
- D. Bids shall include all costs of any nature necessary to complete the project in the manner and within the time required by the contract.
- E. The College reserves the right to require bidders to provide a schedule of values of their lump sum bid price upon request.
- F. The College is exempt from all taxes including Federal Excise Tax, Transportation Taxes, State Excise, Sales Tax and local taxes. Rentals of equipment for 28 days or less is not exempt from any tax under the State sales tax act.
- G. Before submitting a bid, the bidder shall be familiar with the Drawings, Specifications, and other Documents that will form part of the contract and the site conditions to confirm for themselves the character and amount of work involved.
- H. No bidder shall be allowed to offer more than one price on each item even though he/she may feel that he/she has two or more types or styles that will meet specifications. Bidders must determine for themselves which to offer. This may be cause for automatic rejection of bid.
- I. It is understood and agreed that all prices quoted are firm and not subject to any increase during the life of the contract.
- J. Should any difference arise between the contracting parties as to the meaning or intent of these instructions or specifications, the College's decision shall be final and conclusive.
- K. Should the bidder discover discrepancies in this Request for Bids, the matter shall be at once brought to the attention of the College, and the discrepancies corrected by written agreement before submission of bid. The correction will be issued by addendum.

12. OSHA COMPLIANCE:

- A. The Contractor shall guarantee that all materials, supplies and equipment to be provided under his contract shall meet all applicable requirements, Specifications and standards of the Federal Occupational Safety and Health Act (OSHA) of 1970 as amended to date of acceptance by the College, and shall also apply to Contractors Construction procedures.

13. EXAMINATION OF SITE, DRAWINGS AND SPECIFICATIONS

- A. Each Bidder should familiarize the site of the proposed work and fully acquaint themselves with the conditions as they exist so that they may fully understand the facilities, difficulties, and restrictions attending the execution of the work under this Contract.
- B. Bidders shall also thoroughly examine and be familiar with the Drawings and Specifications. The failure to receive or examine any form, instrument or document, or to visit the site and acquaint himself with conditions there existing shall in no way relieve any bidder from obligation with respect to his bid. By submitting a bid, the bidder agrees and warrants that he is familiarized with the site, the Drawings and Specifications and, that the Specifications and Drawings are adequate and the required result can be produced under the Drawings and Specifications. No claim for any extra will be allowed because of alleged impossibilities in the productions of the results specified or because of unintentional errors or conflicts in the Drawings and Specifications. No change orders will be issued for items, materials or issues that existed on or with respect to the site prior to bidding.

14. DRAWINGS AND SPECIFICATIONS

- A. The project shall be performed in accordance with the requirements of the Drawings and Specifications, subject to modification as provided in General Conditions. The Drawings and Specifications are intended to complement and supplement each other.
- B. Any work required by either of them and not by the other shall be performed as if denoted in both. Should any work be required which is not also denoted in the Specifications or on the Drawings because of an obvious omission, but which is, nevertheless, necessary for the proper performance of the project, such work shall be performed as fully as if it were described and delineated.

15. FORM OF AGREEMENT

- A. Every successful bidder shall be required to sign the standard form contract, a copy of which is attached. Any proposed language or form changes which in any way modifies the contractor's responsibilities as set forth in the Contract Documents will not be acceptable and will be deemed to constitute a bid exception.

16. MULTIPLE BIDS NOT ALLOWED:

- A. No bidder is allowed to submit more than one bid from an individual, firm, partnership, corporation or association under the same or different name. This will be cause for automatic rejection of each bid.

17. SUBSTITUTIONS:

- A. The bidder may include in their bid substitute materials or equipment or methods in lieu of those specified in the contract documents, but they do so at their own risk. Any substitution must be equivalent in type, function and quality to the item required in the contract. The successful bidder must submit all information required within 20 days of contract award to determine if the proposed substitute is equal to the contract requirements, and any substitution must be approved by the architect and the College.
- B. The College may investigate/evaluate/be the sole judge of the equivalency of 'or equals' products. It shall be the Contractor's responsibility to document the equivalence claim. No substitution shall result in any increase in the contract price or times. The successful bidder in its application for the substitution must certify in writing that the substitution is equal to what is specified in the contract documents in all material respects and will not increase the time or price of the contract work.
- C. Should the substitution be rejected, the contractor will then be required to provide the specified product, material or method at no additional cost to the College and no change in the project schedule.

18. APPLICABLE LAWS: The following list of statutes and regulations, which may be applicable in whole or in part, is provided for the benefit of the Contractor and is not meant to be all-inclusive. In the event that other laws are applicable, it shall be the responsibility and obligation of the Contractor to ascertain and comply with them.

- A. **SET ASIDE PROGRAM FOR SMALL BUSINESS ENTERPRISE (SBE):** It is the policy of the State entities that small business enterprises ("SBE") as determined and defined by the State of New Jersey, Division of Revenue and Enterprise Services ("Division") in the Department of the Treasury (N.J.A.C.17:13-1.2) have the opportunity to compete for and participate in the performance of contracts and subcontract for construction and for the purchase of goods and services. The State further requires that its contractors/vendors agree to take all necessary and responsible steps, in accordance with N.J.S.A. 52:32-17 et seq. and N.J.A.C. 17:13-1 et seq. to ensure that SBE's have these opportunities, as an aid in meeting the commitment of its SBE Programs. N.J.S.A. 52:32-17 et seq. and Executive Order 71 requires that each State department make a good faith effort to award a total of 25% of the dollar value of contracts for goods and services and construction to eligible small businesses.
- B. **SET ASIDE PROGRAM FOR DISABLED VETERAN-OWNED BUSINESS (DVOB):** In accordance with the New Jersey Set-Aside Act for Disabled Veterans' Businesses, N.J.S.A. 52:32-31.1 et seq. (P.L. 2015, c. 116), it is the policy of State entities that Disabled Veteran-Owned Businesses ("DVOBs"), as determined and defined by the State of New Jersey, Department of Treasury, Division of Revenue and Enterprise Services in N.J.A.C. 17:14-1.1 et seq., have the opportunity to compete for

and participate in goods and services contracts and subcontracts for construction services. The Contractor shall agree to take all necessary and responsible steps, in accordance with the aforementioned regulations, to ensure that DVOBs have these opportunities. N.J.S.A. 52:32-31.1 et seq. (P.L. 2015, c. 116) requires that each State department make a good faith effort to award a total of 3% of the dollar value of contracts for goods and services and construction to eligible DVOBs.

C. EXECUTIVE ORDER #34 – MINORITY AND WOMEN BUSINESS ENTERPRISES: On September 15, 2006, Governor Corzine signed Executive Order 34 establishing a Division of Minority and Women Business Development. The Division is charged with administering and monitoring policies, practices, and programs to ensure that minority and women business enterprises (MWBE) are afforded an equal opportunity to participate in New Jersey’s purchasing and procurement processes.

D. STATEMENT OF OWNERSHIP DISCLOSURE: Pursuant to N.J.S.A. 52:25-24.2, in the event the Bidder is a corporation, partnership or limited liability company, the Bidder must disclose their ownership. Bidder completes and submits the form along with bid proposal.

E. NON-COLLUSION AFFIDAVIT: Bidder completes and submits the form along with bid proposal.

F. PREVAILING WAGE (N.J.S.A. 34:11-56.25 et seq.) AND PUBLIC WORKS CONTRACTOR REGISTRATION ACTS (N.J.S.A. 34:11-56.48 et seq.):

1. The work described in this project is subject to the New Jersey Prevailing Wage Act, N.J.S.A. 34:11-56.25 et seq. and the Public Works Contractor Registration Act, N.J.S.A. 34:11-56.48 et seq.
2. The Public Works Contractor Registration Act requires the bidder and any subcontractors listed in the bid to be registered with the New Jersey Department of Labor and Workforce Development at the time the bid is submitted. The contractor must submit registration certificates for all listed subcontractors prior to award of the contract.
3. The Contractor must comply with the New Jersey Prevailing Wage Act, N.J.S.A. 34:11-56.25 through 56.47. Workers employed by the Contractor or any subcontractor or sub-subcontractor in the performance of services directly on the project must be paid prevailing wages. Additionally, pursuant to N.J.S.A. 34:11-56.27(a), a bidder in competitive bidding for public work, whose bid is the lowest and is 10% or more lower than the next lowest bid, must certify (form to be provided by TCNJ if applicable) to TCNJ that the bidder shall pay prevailing wage rates as required by the Act. Also, as required by N.J.S.A. 34:11-56.27 and 56.28, the contract cannot become effective until the College obtains from the New Jersey Department of Labor and Workforce Development a determination of the prevailing wage rates applicable to the project as of the contract award date and attaches a copy to the contract. As required by N.J.S.A. 34:11-56.27, the Contractor or any subcontractor may be terminated if any covered worker is not paid prevailing wages on the project, and the Contractor and its surety shall be liable for any additional costs which result.
4. All contractors and subcontractors are required to submit certified payroll records to the College within 10 days of payday.
5. Please refer to <https://www.nj.gov/labor/wageandhour/prevailing-rates/public-works/currentprevailingwage.shtml> for official wage rate determinations for Mercer County, NJ.

G. NEW JERSEY EQUAL PAY ACT:

1. On April 24, 2018, Governor Phil Murphy signed into law New Jersey’s Diane B. Allen Equal Pay Act (N.J.S.A. 34:11-56.13 et seq.) The law provides in pertinent part that as of July 1, 2018, any employer entering into a contract with the State of New Jersey or an instrumentality of the State for “qualifying services” or “public works” must provide to the Department of Labor and Workforce Development – upon commencement of the contract – wage and demographic data for all employees who are employed in connection with the contract (for public works) and for all employees (for qualifying services). This requirement DOES NOT apply to employers who are contracting with local governments (for example: municipalities and counties). The report must contain the gender, race, ethnicity, job category, compensation, and number of hours worked by each employee.
2. The extent of the Department of Labor and Workforce Development’s responsibilities under the Equal Pay Act is the collection of data regarding compensation, hours worked, job/occupational category, job title, gender, race, and ethnicity for State contractors and making that data available to the Division on Civil Rights (DCR), within the Department of Law and

Public Safety, and upon request to certain individuals. Complaints of unlawful discrimination under the Equal Pay Act should be directed to the DCR, as should any questions regarding the filing of such a complaint.

3. The Department of Labor and Workforce Development requires, by the law, the Payroll Certification for Public Works Projects form to be completed by employers. This form should be used to report the employee's wage and demographic data and can be found on the LWD website (<https://www.nj.gov/labor/wageandhour/tools-resources/equal-pay>). **Upon commencement of the contract, submit the form via the NJ Wage Hub** (njwages.nj.gov). **IMPORTANT:** For purposes of law, you must also submit this form to the College, either via the NJ Wage Hub or other methods.

H. N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17:27-1 et seq., AFFIRMATIVE ACTION: The bidder is required to complete and submit a copy of Initial Project Workforce Report (AA-201) to the College and the New Jersey Department of Labor & Workforce Development Construction EEO Compliance Monitoring Unit verifying that the bidder is operating under a federally approved or sanctioned Affirmative Action program after notification of award, prior to signing of the contract. The bidder also agrees to submit a copy of the Monthly Project Workforce Report once a month thereafter for the duration of this contract to The College and the Department.

I. New Jersey Business Registration Certificate, N.J.S.A. 52:32-44:

1. Pursuant to - N.J.S.A. 52:32-44, The College of New Jersey ("Contracting Agency") is prohibited from entering into a contract with an entity unless the bidder/proposer/contractor, and each subcontractor that is required by law to be named in a bid/proposal/contract has a valid Business Registration Certificate on file with the Division of Revenue and Enterprise Services within the Department of the Treasury.
2. Prior to contract award or authorization, the contractor shall provide the Contracting Agency with its proof of business registration and that of any named subcontractor(s).
3. Subcontractors named in a bid or other proposal shall provide proof of business registration to the bidder, who in turn, shall provide it to the Contracting Agency prior to the time a contract, purchase order, or other contracting document is awarded or authorized.
4. During the course of contract performance:
 - (a) the contractor shall not enter into a contract with a subcontractor unless the subcontractor first provides the contractor with a valid proof of business registration.
 - (b) the contractor shall maintain and submit to the Contracting Agency a list of subcontractors and their addresses that may be updated from time to time.
 - (c) the contractor and any subcontractor providing goods or performing services under the contract, and each of their affiliates, shall collect and remit to the Director of the Division of Taxation in the Department of the Treasury, the use tax due pursuant to the Sales and Use Tax Act, (N.J.S.A. 54:32B-1 et seq.) on all sales of tangible personal property delivered into the State. Any questions in this regard can be directed to the Division of Taxation at (609)292-6400. Form NJ-REG can be filed online at <http://www.state.nj.us/treasury/revenue/busregcert.shtml>.
5. Before final payment is made under the contract, the contractor shall submit to the Contracting Agency a complete and accurate list of all subcontractors used and their addresses.
6. Pursuant to N.J.S.A. 54:49-4.1, a business organization that fails to provide a copy of a business registration as required, or that provides false business registration information, shall be liable for a penalty of \$25 for each day of violation, not to exceed \$50,000, for each proof of business registration not properly provided under a contract with a contracting agency.

J. RECORD RETENTION: Pursuant to N.J.A.C. 17:44-2.2, the vendor shall maintain all documentation related to products, transactions or services under this contract for a period of five years from the date of final payment. Such records shall be made available to the New Jersey Office of the State Comptroller upon request.

K. ENERGY STAR ENERGY EFFICIENT PRODUCTS: Under Executive Order #11 (Corzine), the College is required to select ENERGY STAR energy-efficient products when acquiring new energy-using products or replacing existing equipment. For products that do not have ENERGY STAR labels, vendors shall follow guidelines established by the New Jersey Clean Energy Program.

- L.** The following list of statutes and regulations, which may be applicable in whole or in part, is provided for the benefit of the Contractor and is not meant to be all-inclusive. In the event that other laws are applicable, it shall be the responsibility and obligation of the Contractor to ascertain and comply with them.
1. Federal Statutes:
Civil Rights Act of 1964 – 42 U.S.C.A. Section 1971 *et seq.*
The Americans with Disabilities Act of 1990

GENERAL AGREEMENT

1. Having examined the plans and specifications with related documents and the site of the proposed work and being familiar with all of the conditions surrounding the construction of the proposed project including the availability of materials and labor, the undersigned hereby proposes to furnish all labor, materials, and supplies, and to construct the project in accordance with the Contract Documents, within the time set forth therein, and at the price stated. This price covers all expenses incurred in performing the work required under the Contract Documents, of which this proposal is a part.
2. Bidder acknowledges receipt of the following Addendums/Clarifications:

No Addenda Issued _____
Addendum Number _____ Date _____
Addendum Number _____ Date _____
Addendum Number _____ Date _____
3. Bidder acknowledges and affirms that he/she has personal knowledge of or has obtained and reviewed a copy of the valid prevailing wage rates at the time of the bid and for the duration of the contract for all trades involved in the project for the geographical location of the project as issued by the Commissioner of the Department of Labor & Workforce Development, Trenton, NJ 08625 (609) 292-2259 or visiting the Department of Labor website at (<https://www.nj.gov/labor/wageandhour/prevailing-rates/public-works/currentprevailingwage.shtml>). All pre-determined rate increases listed at the time the contract is awarded must also be paid, beginning on the dates specified. Select Mercer for the applicable prevailing wage rates.
4. Bidder agrees that its price is good and the bid shall not be withdrawn for a period of 60 calendar days after the scheduled Bid Due Date and Time.
5. The attached bid security is to become the Property of the Owner in the event that the Contract and bond are not executed within the time set forth, as liquidated damages for the delay and additional expense (including the difference between the price provided with said bond and the next lowest responsive bidder) to the Owner caused thereby.
6. Upon conclusion of the 5-business day protest period, Bidder will execute the formal contract for the stated work and compensation on the Standard Form of Agreement Between Owner and Contractor within 5 business days and deliver as required in the General Conditions: a Performance and Payment Bond; Surety Disclosure and Certification Statement; and certificates of insurance for general liability, automobile and worker's compensation. Contractor shall provide a Maintenance Bond at job completion for a period of one year for 100% of the final contract price.
7. Bidder acknowledges work to commence on site not later than ten (10) calendar days after receipt of a Notice to Proceed.

(Seal if bid is by Corporation)

Respectfully submitted,

(Signature of Principal)

(Printed Name of Principal)

(Title of Principal)

**COST SHEET
SINGLE BID (LUMP SUM):
BASE BID, ALTERNATE PROPOSALS, AND UNIT PRICES**

To: **The College of New Jersey**

for: **Refurbish Music Building RO System**

Date _____

A. BID:

1. Base:

Part A – Refurbish Music Building RO System: \$ _____

Part B – Allowance for Unforeseen Issues: \$2,500

We, _____, the Undersigned, in accordance with the published advertisement inviting proposals, will furnish all labor, material, equipment and services necessary for the complete construction, as defined in the advertisement, specimen contract, specifications, addendums/clarifications/bulletins, drawings, and proposal, for the Contract amount indicated below for the **above noted project** in strict accordance with the Contract Documents and Addenda thereto for the total sum of:

GRAND TOTAL (PART A AND B)

_____ Dollars \$ _____
(words)

General Construction (Single overall Prime Contract)

2. Add /Deduct Alternate: NONE

Note: Failure to provide Add/Deduct Alternate may result in rejection of bid.

3. Check List for Bidders: A check list has been provided in these specifications for the use in completing this proposal. Bidders are encouraged to reference said list to minimize the opportunity for errors by the bidder.

B. STATEMENT:

We, the Undersigned, acting through its authorized officers and intending to be legally bound, agree that this bid proposal shall constitute an offer by the Undersigned to enter into a Contract with the acts and things therein provided and accept this offer at any time during said period by notifying the Undersigned of the acceptance of said offer.

Dated _____

Firm Name _____

Phone Number _____

Address _____

**If a corporation, give the State of Incorporation, using the phrase:

"A corporation organized under the laws of _____."

If a partnership, give names of the partners, using also the phrase:

"Co-partners trading and doing business under the firm name and style of _____"

If a Limited Liability Company, give the names of the owners/members, using also the phrase:

"A owner/member doing business under the firm name and style of _____"

If an individual using a trade name, give individual name, also using the phrase:

"An individual doing business under the firm name and style of _____"

Dated: _____

STATE OF _____

SS.

COUNTY OF _____

_____ being duly sworn say that the several matters stated in this proposal are in all respects true, and that no member of the State or employee of the College are interested in any way in this proposal.

Sworn and subscribed before me _____

Bidder signs above line

this _____ day of _____ 20____

Print Name

and

Title

SUBCONTRACTOR INFORMATION FOR SINGLE BID (LUMP SUM)

Pursuant to the State Colleges Contract Law, N.J.S.A. 18A:64-76.1, all bids submitted shall set forth the names and license numbers of all subcontractors to whom the bidder intends to subcontract the plumbing and gas fitting work; the refrigeration, the heating and ventilating systems and equipment; the electrical work, including any electrical power plants; tele-data, fire alarm, or security systems; the structural steel and ornamental iron work (individually, the "Trade" or collectively, the "Trades").

For each Trade listed below for which the work will be completed by a

- Subcontractor - you must list for each such subcontractor the name, license number (or in lieu thereof enclose a copy of the license with this form), address, and telephone number.
- Self-performed – you must list the name of the bidder (next to "Name") and license number.
- Not required - if that Trade is not required per the scope of work of the project, indicate that by inserting "Not required" (next to "Name").

Failure to complete this form as required may result in your bid being disqualified.

Plumbing and Gas Fitting Work

Must complete information for License Holder (Self-performed or Subcontractor):

Name: _____
License Number: _____
Address: _____

Telephone: _____

Refrigeration, Heating and Ventilating Systems and Equipment

Must complete information for License Holder (Self-performed or Subcontractor):

Name: _____
License Number: _____
Address: _____

Telephone: _____

Electrical Work, including any Electrical Power Plants, Tele-data, Fire Alarm, or Security Systems

Must complete information for License Holder (Self-performed or Subcontractor):

Name: _____
License Number: _____
Address: _____

Telephone: _____

Structural Steel Work and Ornamental Iron Work

Must complete information if required (Self-Performed or Subcontractor):

Name: _____

Address: _____

Telephone: _____

Bidder Name

By: _____
Signature

Printed Name of Signing Individual

Date

DEMOGRAPHIC INFORMATION

Under Executive Order 34 (Corzine), the College is responsible for soliciting demographic information from its vendors. The College is required to seek the following information from each firm under contract with the College:

1. Is more than fifty percent (50%) of your company minority owned? (circle one) YES NO
(African-American, Hispanic, Asian, and/or Native American)
2. Is more than fifty percent (50%) of your company woman owned? (circle one) YES NO
3. What is the ethnicity of the owner of your company: (check applicable according to 51% ownership)
 - ☐ Asian American
 - ☐ Multiple Ethnicities
 - ☐ Non-Minority
 - ☐ Hispanic American
 - ☐ African American
 - ☐ Caucasian American Female
 - ☐ Native American
 - ☐ Unspecified

The College is required to solicit the foregoing information. Your response, however, is **strictly voluntary**. Please be advised that any contracting decisions made by the College will **not** be influenced in any way by your decision to provide the above information.

Bidder Name

By: _____
Signature

Printed Name of Signing Individual

Date

SMALL BUSINESS, MINORITY AND/OR WOMEN, VETERAN AND DISABLED VETERAN OWNED BUSINESS REPORTING

1. Contractor and sub-contractors are requested to check all of the following that apply to their company and, if applicable, submit a copy of their certificate(s):

A. My company is certified by the NJ Department of Treasury, Division of Revenue and Enterprise Services as a:

- ☐ Small Business Enterprise, SBE
- ☐ Minority-owned Business Enterprise, MBE
- ☐ Women-owned Business Enterprise, WBE
- ☐ Veteran-owned Business, VOB
- ☐ Disabled Veteran-owned Business, DVOB

B. My company is not certified by either NJ Department, but is:

- ☐ Small Business, SBE
- ☐ Minority-owned Business, MBE
- ☐ Women-owned Business, WBE
- ☐ Veteran-owned Business, VOB
- ☐ Disabled Veteran-owned Business, DVOB

C. ☐ My company is not certified as one of the categories listed above.

Bidder Name

By: _____
Signature

Printed Name of Signing Individual

Date



Mandatory Documents

FORM #	TITLE OF FORM
1	MANDATORY EQUAL EMPLOYMENT OPPORTUNITY LANGUAGE
2	OWNERSHIP DISCLOSURE FORM
3	NON-COLLUSION STATEMENT
4	VENDOR QUALIFICATION SHEET
5	NON-INVOLVEMENT IN PROHIBITED ACTIVITIES IN RUSSIA OR BELARUS FORM
6	DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN FORM
7	FEDERAL NON-DEBARMENT CERTIFICATION



MANDATORY EQUAL EMPLOYMENT OPPORTUNITY LANGUAGE
N.J.S.A. 10:5-31 et seq. (P.L.1975, c.127)
N.J.A.C. 17:27-1.1 et seq.
FORM # 1

The College of New Jersey
PO Box 7718
Ewing, NJ 08628-0718

CONSTRUCTION CONTRACTS

During the performance of this contract, the contractor agrees as follows:

The contractor or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Except with respect to affectional or sexual orientation and gender identity or expression, the contractor will ensure that equal employment opportunity is afforded to such applicants in recruitment and employment, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Such equal employment opportunity shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Public Agency Compliance Officer setting forth provisions of this nondiscrimination clause.

The contractor or subcontractor, where applicable will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex.

The contractor or subcontractor will send to each labor union, with which it has a collective bargaining agreement, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

The contractor or subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer, pursuant to N.J.S.A. 10:5-31 et seq., as amended and supplemented from time to time and the Americans with Disabilities Act.

When hiring or scheduling workers in each construction trade, the contractor or subcontractor agrees to make good faith efforts to employ minority and women workers in each construction trade consistent with the targeted employment goal prescribed by N.J.A.C. 17:27-7.2; provided, however, that the Dept. of LWD, Construction EEO Monitoring Program, may, in its discretion, exempt a contractor or subcontractor from compliance with the good faith procedures prescribed by the following provisions, A, B, and C, as long as the Dept. of LWD, Construction EEO Monitoring Program is satisfied that the contractor or subcontractor is employing workers

(Cont)

provided by a union which provides evidence, in accordance with standards prescribed by the Dept. of LWD, Construction EEO Monitoring Program, that its percentage of active “card carrying” members who are minority and women workers is equal to or greater than the targeted employment goal established in accordance with N.J.A.C. 17:27-7.2. The contractor or subcontractor agrees that a good faith effort shall include compliance with the following procedures:

(A) If the contractor or subcontractor has a referral agreement or arrangement with a union for a construction trade, the contractor or subcontractor shall, within three business days of the contract award, seek assurances from the union that it will cooperate with the contractor or subcontractor as it fulfills its affirmative action obligations under this contract and in accordance with the rules promulgated by the Treasurer pursuant to N.J.S.A. 10:5-31 et. seq., as supplemented and amended from time to time and the Americans with Disabilities Act. If the contractor or subcontractor is unable to obtain said assurances from the construction trade union at least five business days prior to the commencement of construction work, the contractor or subcontractor agrees to afford equal employment opportunities minority and women workers directly, consistent with this chapter. If the contractor's or subcontractor's prior experience with a construction trade union, regardless of whether the union has provided said assurances, indicates a significant possibility that the trade union will not refer sufficient minority and women workers consistent with affording equal employment opportunities as specified in this chapter, the contractor or subcontractor agrees to be prepared to provide such opportunities to minority and women workers directly, consistent with this chapter, by complying with the hiring or scheduling procedures prescribed under (B) below; and the contractor or subcontractor further agrees to take said action immediately if it determines that the union is not referring minority and women workers consistent with the equal employment opportunity goals set forth in this chapter.

(B) If good faith efforts to meet targeted employment goals have not or cannot be met for each construction trade by adhering to the procedures of (A) above, or if the contractor does not have a referral agreement or arrangement with a union for a construction trade, the contractor or subcontractor agrees to take the following actions:

(1) To notify the public agency compliance officer, the Dept. of LWD, Construction EEO Monitoring Program, and minority and women referral organizations listed by the Division pursuant to N.J.A.C. 17:27-5.3, of its workforce needs, and request referral of minority and women workers;

(2) To notify any minority and women workers who have been listed with it as awaiting available vacancies;

(3) Prior to commencement of work, to request that the local construction trade union refer minority and women workers to fill job openings, provided the contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade;

(Cont)

- (4) To leave standing requests for additional referral to minority and women workers with the local construction trade union, provided the contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade, the State Training and Employment Service and other approved referral sources in the area;
- (5) If it is necessary to lay off some of the workers in a given trade on the construction site, layoffs shall be conducted in compliance with the equal employment opportunity and non-discrimination standards set forth in this regulation, as well as with applicable Federal and State court decisions;
- (6) To adhere to the following procedure when minority and women workers apply or are referred to the contractor or subcontractor:
 - (i) The contractor or subcontractor shall interview the referred minority or women worker.
 - (ii) If said individuals have never previously received any document or certification signifying a level of qualification lower than that required in order to perform the work of the construction trade, the contractor or subcontractor shall in good faith determine the qualifications of such individuals. The contractor or subcontractor shall hire or schedule those individuals who satisfy appropriate qualification standards in conformity with the equal employment opportunity and non-discrimination principles set forth in this chapter. However, a contractor or subcontractor shall determine that the individual at least possesses the requisite skills, and experience recognized by a union, apprentice program or a referral agency, provided the referral agency is acceptable to the Dept. of LWD, Construction EEO Monitoring Program. If necessary, the contractor or subcontractor shall hire or schedule minority and women workers who qualify as trainees pursuant to these rules. All of the requirements, however, are limited by the provisions of (C) below.
 - (iii) The name of any interested women or minority individual shall be maintained on a waiting list, and shall be considered for employment as described in (i) above, whenever vacancies occur. At the request of the Dept. of LWD, Construction EEO Monitoring Program, the contractor or subcontractor shall provide evidence of its good faith efforts to employ women and minorities from the list to fill vacancies.
 - (iv) If, for any reason, said contractor or subcontractor determines that a minority individual or a woman is not qualified or if the individual qualifies as an advanced trainee or apprentice, the contractor or subcontractor shall inform the individual in writing of the reasons for the determination, maintain a copy of the determination in its files, and send a copy to the public agency compliance officer and to the Dept. of LWD, Construction EEO Monitoring Program.
- (7) To keep a complete and accurate record of all requests made for the referral of workers in any trade covered by the contract, on forms made available by the Dept. of LWD, Construction EEO Monitoring Program and submitted promptly to the Dept. of LWD, Construction EEO Monitoring Program upon request.

(Cont)

(C) The contractor or subcontractor agrees that nothing contained in (B) above shall preclude the contractor or subcontractor from complying with the union hiring hall or apprenticeship policies in any applicable collective bargaining agreement or union hiring hall arrangement, and, where required by custom or agreement, it shall send journeymen and trainees to the union for referral, or to the apprenticeship program for admission, pursuant to such agreement or arrangement. However, where the practices of a union or apprenticeship program will result in the exclusion of minorities and women or the failure to refer minorities and women consistent with the targeted county employment goal, the contractor or subcontractor shall consider for employment persons referred pursuant to (B) above without regard to such agreement or arrangement; provided further, however, that the contractor or subcontractor shall not be required to employ women and minority advanced trainees and trainees in numbers which result in the employment of advanced trainees and trainees as a percentage of the total workforce for the construction trade, which percentage significantly exceeds the apprentice to journey worker ratio specified in the applicable collective bargaining agreement, or in the absence of a collective bargaining agreement, exceeds the ratio established by practice in the area for said construction trade. Also, the contractor or subcontractor agrees that, in implementing the procedures of (B) above, it shall, where applicable, employ minority and women workers residing within the geographical jurisdiction of the union.

After notification of award, but prior to signing a construction contract, the contractor shall submit to the public agency compliance officer and the Dept. of LWD, Construction EEO Monitoring Program an initial project workforce report (Form AA-201) electronically provided to the public agency by the Dept. of LWD, Construction EEO Monitoring Program, through its website, for distribution to and completion by the contractor, in accordance with N.J.A.C. 17:27-7. The contractor also agrees to submit a copy of the Monthly Project Workforce Report once a month thereafter for the duration of this contract to the Dept. of LWD, Construction EEO Monitoring Program, and to the public agency compliance officer.

The contractor agrees to cooperate with the public agency in the payment of budgeted funds, as is necessary, for on-the-job and/or off-the-job programs for outreach and training of minorities and women.

(D) The contractor and its subcontractors shall furnish such reports or other documents to the Dept. of LWD, Construction EEO Monitoring Program as may be requested by the Dept. of LWD, Construction EEO Monitoring Program from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as may be requested by the Dept. of LWD, Construction EEO Monitoring Program for conducting a compliance investigation pursuant to N.J.A.C. 17:27-1.1 et seq.

Additional Mandatory Construction Contract Language For State Agencies, Independent Authorities, Colleges and Universities Only

The Executive Order No. 151 (Corzine, August 28, 2009) and P.L. 2009, Chapter 335 include a provision which require all state agencies, independent authorities and colleges and universities to include additional mandatory equal employment and affirmative action language in its construction contracts. It is important to note that this language is in addition to and does not re- place the mandatory contract language and good faith efforts requirements for construction con- tracts required by N.J.A.C. 17:27-3.6, 3.7 and 3.8. The additional mandatory equal employment and affirmative action language is as follows:

It is the policy of The College of New Jersey that its contracts should create a work- force that reflects the diversity of the State of New Jersey. Therefore, contractors engaged by The College of New Jersey to perform under a construction contract shall put forth a good faith effort to engage in recruitment and employment practices that further the goal of fostering equal opportunities to minorities and women.

The contractor must demonstrate to The College of New Jersey's satisfaction that a good faith effort was made to ensure that minorities and women have been afforded equal opportunity to gain employment under The College of New Jersey's contract with the contractor. Payment may be withheld from a contractor's con- tract for failure to comply with these provisions.

Evidence of a "good faith effort" includes, but is not limited to:

1. The Contractor shall recruit prospective employees through the State Job bank website, managed by the Department of Labor and Workforce Development, available online at <http://NJ.gov/JobCentralNJ>;
2. The Contractor shall keep specific records of its efforts, including records of all individuals interviewed and hired, including the specific numbers of minorities and women;
3. The Contractor shall actively solicit and shall provide The College of New Jersey with proof of solicitations for employment, including but not limited to advertisements in general circulation media, professional service publications and electronic media; and
4. The Contractor shall provide evidence of efforts described at 2 above to The College of New Jersey no less frequently than once every 12 months.
5. The Contractor shall comply with the requirements set forth at N.J.A.C. 17:27-1.1 et seq.

To ensure successful implementation of the Executive Order and Law, state agencies, independent authorities and colleges and universities must forward an Initial Project Workforce Report (AA 201) for any projects funded with ARRA money to the Dept. of LWD, Construction EEO Monitoring Program immediately upon notification of award but prior to execution of the contract.

IF AWARDED A CONTRACT YOUR COMPANY/FIRM WILL BE REQUIRED TO COMPLY WITH THE AFFIRMATIVE ACTION REQUIREMENTS LISTED ABOVE.

Firm Name: _____

Signature: _____

Title: _____

Date: _____



OWNERSHIP DISCLOSURE FORM # 2

The College of New Jersey
PO Box 7718
Ewing, NJ 08628-0718

BID SOLICITATION # AND TITLE: _____

VENDOR NAME: _____

PURSUANT TO N.J.S.A. 52:25-24.2, ALL PARTIES ENTERING INTO A CONTRACT WITH THE STATE ARE REQUIRED TO PROVIDE A STATEMENT OF OWNERSHIP.

1. The vendor is a **Non-Profit Entity**; and therefore, no disclosure is necessary.
2. The vendor is a **Sole Proprietor**; and therefore, no other disclosure is necessary.
A Sole Proprietor is a person who owns an unincorporated business by himself or her-self.
A limited liability company with a single member is not a Sole Proprietor.
3. The vendor is a **corporation, partnership, or limited liability company**; and therefore, disclosure is necessary.

If you answered **YES** to Question 3, you must disclose the following information below: **(a)** the names and addresses of all stockholders in the corporation who own 10% or more of its stock, of any class; **(b)** all individual partners in the partnership who own a 10% or greater interest therein; or, **(c)** all members in the limited liability company who own a 10% or greater interest therein.*

NAME	_____		
ADDRESS	_____		
ADDRESS	_____		
CITY	STATE	ZIP	

NAME	_____		
ADDRESS	_____		
ADDRESS	_____		
CITY	STATE	ZIP	

NAME	_____		
ADDRESS	_____		
ADDRESS	_____		
CITY	STATE	ZIP	

NAME	_____		
ADDRESS	_____		
ADDRESS	_____		
CITY	STATE	ZIP	

4. For each of the corporations, partnerships, or limited liability companies identified in response to Question #3 above, are there any individuals, partners, members, stockholders, corporations, partnerships, or limited liability companies owning a 10% or greater interest of those listed business entities?

If you answered **YES** to Question 4, you must disclose the following information below: **(a)** the names and addresses of all stockholders in the corporation who own 10% or more of its stock, of any class; **(b)** all individual partners in the partnership who own a 10% or greater interest therein; or, **(c)** all members in the limited liability company who own a 10% or greater interest therein. The disclosure(s) shall be continued until the names and addresses of every non-corporate stockholder, individual partner, and/or member a 10% or greater interest has been identified.*

NAME	_____		
ADDRESS	_____		
ADDRESS	_____		
CITY	STATE	ZIP	

NAME	_____		
ADDRESS	_____		
ADDRESS	_____		
CITY	STATE	ZIP	

NAME	_____		
ADDRESS	_____		
ADDRESS	_____		
CITY	STATE	ZIP	

NAME	_____		
ADDRESS	_____		
ADDRESS	_____		
CITY	STATE	ZIP	

5. As an alternative to completing this form, a Vendor with any direct or indirect parent entity which is publicly traded, may submit the name and address of each publicly traded entity and the name and address of each person that holds a 10% or greater beneficial interest in the publicly traded entity as of the last annual filing with the federal Securities and Exchange Commission or the foreign equivalent, and, if there is any person that holds a 10% or greater beneficial interest, also shall submit links to the websites containing the last annual filings with the federal Securities and Exchange Commission or the foreign equivalent and the relevant page numbers of the filings that contain the information on each person that holds a 10% or greater beneficial interest.*

* Attach additional sheets if necessary



NON-COLLUSION STATEMENT
FORM # 3

The College of New Jersey
PO Box 7718
Ewing, NJ 08628-0718

Date:

The College of New Jersey
The Office of Finance & Business Services, Purchasing Department
Administrative Services Building, Room 201
P.O. Box 7718
Ewing, New Jersey 08628-0718
To Whom It May Concern:

This is to certify that the undersigned bidder _____ as
not, either directly or indirectly, entered into any agreement, participated in
any collusion, or otherwise taken any action in restraint of free competitive
bidding in connection with the proposal submitted to The College of New
Jersey on the _____ day of _____, 20 ____.

Signature:

Corporate Seal:

Attest by:

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

My commission Expires: _____

Notary Public

THIS STATEMENT MUST BE COMPLETED AND SIGNED



TCNJ

THE COLLEGE OF NEW JERSEY

**VENDOR QUALIFICATION SHEET
FORM # 4**

The College of New Jersey
PO Box 7718
Ewing, NJ 08628-0718

Vendors are required to submit evidence of qualifications to meet all requirements as required by the Office of Finance & Business Services at The College of New Jersey by providing the information listed below. Vendors must comply with the College's terms and conditions available on the [Purchasing website](#).

If this information is being requested as part of an RFP or RFQ, vendors may be requested to furnish additional information for clarification purposes. This will in no way change the vendor's original proposal.

All vendors are encouraged to register with the State of New Jersey, Division of Purchase and Property via [NJSTART](#).

TO BE COMPLETED BY VENDOR

1. Please list the types of commodities that your company can provide.

A. _____

B. _____

C. _____

2. The number of years your firm has been providing these services. _____ Year(s)

3. Location of vendor's office and personnel that will be responsible for managing contract/service:

Name: _____

Title: _____

Telephone Number: _____

Email Address: _____

Street Address: _____

City/State/Zip: _____

Federal Identification Number: _____

4. Does your firm have a New Jersey Business Registration Certificate? Yes ☐ No ☐
If you would like to register, visit the State website [here](#), the NJ BRC is required prior to award.

VENDOR QUALIFICATIONS- continued

Under NJ Executive Order 34, TCNJ is responsible for soliciting demographic, ethnic, and gender information from its vendors. Your response, however, is **strictly voluntary**. Please be advised that any contracting decisions made by TCNJ will **not** be influenced in any way by your decision to provide the above information. TCNJ is required to seek the following information from each firm under contract with us:

1. Is more than fifty percent (50%) of your company minority owned (African-American, Hispanic, Asian, and/or Native American) Yes ☐ No ☐
2. Is more than fifty percent (50%) of your company woman owned? Yes ☐ No ☐
3. What is the ethnicity of the owner of your company: (check applicable according to 51% ownership)

- ☐ Asian American
- ☐ Multiple Ethnicities
- ☐ Non-Minority
- ☐ Hispanic American
- ☐ African American
- ☐ Caucasian American Female
- ☐ Native American
- ☐ Unspecified

11. Please provide a list of former or present clients. Also, indicate the name of a contact person and telephone number for reference purposes. **Any personnel from The College of New Jersey listed as a reference will not be considered a valid reference.**

A. Client Name: _____

Contact Name: _____

Telephone Number: _____

Email Address: _____

B. Client Name: _____

Contact Name: _____

Telephone Number: _____

Email Address: _____

C. Client Name: _____

Contact Name: _____

Telephone Number: _____

Email Address: _____

VENDOR QUALIFICATIONS- continued

12. Please answer the questions below related to your prior experience. If any of the responses are yes, attach a summary of details on a separate sheet.

Has the bidder:

- a. been found, through either court adjudication, arbitration, mediation, or other contractually stipulated alternate dispute resolution mechanism, to have: failed to provide or perform goods or services; or failed to complete the contract in a timely manner; or otherwise performed unsatisfactorily under a prior contract with the contracting unit? Yes ☐ No ☐

- b. defaulted on a contract, thereby requiring the local unit to utilize the services of another contractor to provide the goods or perform the services or to correct or complete the contract or requiring the local unit to look to the bidder's surety for completion of the contract or tender of the costs of completion? Yes ☐ No ☐

- c. been debarred or suspended from contracting with any of the agencies or departments of the executive branch of the State of New Jersey at the time of contract award, whether or not the action was based on experience with the contracting unit. Yes ☐ No ☐

Firm Name: _____

Signature: _____

Title: _____

Date: _____



CERTIFICATION OF NON INVOLVEMENT IN PROHIBITED ACTIVITIES IN RUSSIA OR BELARUS FORM # 5

The College of New Jersey
PO Box 7718
Ewing, NJ 08628-0718

Pursuant to N.J.S.A. 52:32-60.1, et seq. ([L. 2022, c. 3](#)) any person or entity (hereinafter "Vendor") that seeks to enter into or renew a contract with a State agency for the provision of goods or services, or the purchase of bonds or other obligations, must complete the certification below indicating whether or not the Vendor is identified on the Office of Foreign Assets Control (OFAC) Specially Designated Nationals and Blocked Persons list, available here: <https://sanctionssearch.ofac.treas.gov/>. If the Department of the Treasury finds that a Vendor has made a certification in violation of the law, it shall take any action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the party.

I, the undersigned, certify that I have read the definition of "Vendor" below, and have reviewed the Office of Foreign Assets Control (OFAC) Specially Designated Nationals and Blocked Persons list, and having done so certify:

(Check the Appropriate Box)

- A. That the Vendor is not identified on the [OFAC Specially Designated Nationals and Blocked Persons list on account of activity related to Russia and/or Belarus](#).

OR

- B. That I am unable to certify as to "A" above, because the Vendor is identified on the [OFAC Specially Designated Nationals and Blocked Persons list on account of activity related to Russia and/or Belarus](#).

OR

- C. That I am unable to certify as to "A" above, because the Vendor is identified on the [OFAC Specially Designated Nationals and Blocked Persons list](#). However, the Vendor is engaged in activity related to Russia and/or Belarus consistent with federal law, regulation, license or exemption. A detailed description of how the Vendor's activity related to Russia and/or Belarus is consistent with federal law is set forth below.

(Attach Additional Sheets If Necessary.)

Signature of Vendor's Authorized Representative	Date
Print Name and Title of Vendor's Authorized Representative	Vendor's FEIN
Vendor's Name	Vendor's Phone Number
Vendor's Address (Street Address)	Vendor's Fax Number
Vendor's Address (City/State/Zip Code)	Vendor's Email Address

ⁱ Vendor means: (1) A natural person, corporation, company, limited partnership, limited liability partnership, limited liability company, business association, sole proprietorship, joint venture, partnership, society, trust, or any other nongovernmental entity, organization, or group; (2) Any governmental entity or instrumentality of a government, including a multilateral development institution, as defined in Section 1701(c)(3) of the International Financial Institutions Act, 22 U.S.C. 262r(c)(3); or (3) Any parent, successor, subunit, direct or indirect subsidiary, or any entity under common ownership or control with, any entity described in paragraph (1) or (2).



DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN

FORM # 6

The College of New Jersey
PO Box 7718
Ewing, NJ 08628-0718

BID SOLICITATION # AND TITLE: _____

VENDOR NAME: _____

Pursuant to N.J.S.A. 52:32-57, et seq. (P.L. 2012, c.25 and P.L. 2021, c.4) any person or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract must certify that neither the person nor entity, nor any of its parents, subsidiaries, or affiliates, is identified on the New Jersey Department of the Treasury's Chapter 25 List as a person or entity engaged in investment activities in Iran. The Chapter 25 list is found on the Division's website at <https://www.state.nj.us/treasury/purchase/pdf/Chapter25List.pdf>. Vendors/Bidders must review this list prior to completing the below certification. If the Director of the Division of Purchase and Property finds a person or entity to be in violation of the law, s/he shall take action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the party.

CHECK THE APPROPRIATE BOX

☐ I certify, pursuant to N.J.S.A. 52:32-57, et seq. (P.L. 2012, c.25 and P.L. 2021, c.4), that neither the Vendor/Bidder listed above nor any of its parents, subsidiaries, or affiliates is listed on the New Jersey Department of the Treasury's Chapter 25 List of entities determined to be engaged in prohibited activities in Iran.

OR

☐ I am unable to certify as above because the Vendor/Bidder and/or one or more of its parents, subsidiaries, or affiliates is listed on the New Jersey Department of the Treasury's Chapter 25 List. I will provide a detailed, accurate and precise description of the activities of the Vendor/Bidder, or one of its parents, subsidiaries or affiliates, has engaged in regarding investment activities in Iran by completing the information requested below.

Entity Engaged in Investment Activities
Relationship to Vendor/ Bidder
Description of Activities

Duration of Engagement
Anticipated Cessation Date

**Attach Additional Sheets If Necessary.*

CERTIFICATION

I, the undersigned, certify that I am authorized to execute this certification on behalf of the Vendor, that the foregoing information and any attachments hereto, to the best of my knowledge are true and complete. I acknowledge that the State of New Jersey is relying on the information contained herein, and that the Vendor is under a continuing obligation from the date of this certification through the completion of any contract(s) with the State to notify the State in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification. If I do so, I may be subject to criminal prosecution under the law, and it will constitute a material breach of my contract(s) with the State, permitting the State to declare any contract(s) resulting from this certification void and unenforceable.

Signature

Date

Print Name and Title



FEDERAL NON-DEBARMENT CERTIFICATION
N.J.S.A. 52:32-44.1 (P.L. 2019, c.406)
FORM # 7

The College of New Jersey
PO Box 7718
Ewing, NJ 08628-0718

Summary of the Certification Requirements under N.J.S.A. 52:32-44.1

Pursuant to state law any natural person, company, firm, association, corporation, or other entity prohibited, or “debarred,” from contracting with the federal government agencies, shall also be prohibited from contracting for public work in the state of New Jersey. This prohibition also extends to any affiliate organization(s) held by or subject to the control of an entity of that prohibited person or entity.

Prior to awarding a contract for public work a local unit must obtain written certification from the contracting person or entity through the form below, attesting to their non-debarment from contracting with federal government agencies. Contracting units are reminded that they must fill-in the boilerplate information in the certification sections of Parts II through IV regarding their name and type of contracting unit before using the form.

CERTIFICATION OF NON-DEBARMENT
FOR FEDERAL GOVERNMENT CONTRACTS
N.J.S.A. 52:32-44.1 (P.L. 2019, c.406)

This certification shall be completed, certified to, and submitted to the contracting unit prior to contract award, except for emergency contracts where submission is required prior to payment.

PART I: VENDOR INFORMATION	
Individual or Organization Name	
Physical Address of Individual or Organization	
Unique Entity ID (if applicable)	
CAGE/NCAGE Code (if applicable)	
Check the box that represents the type of business organization:	

- ☐ Sole Proprietorship (skip Parts III and IV) ☐ Non-Profit Corporation (skip Parts III and IV)
- ☐ For-Profit Corporation (any type) ☐ Limited Liability Company (LLC) ☐ Partnership
- ☐ Limited Partnership ☐ Limited Liability Partnership (LLP)
- ☐ Other (be specific): _____

PART II – CERTIFICATION OF NON-DEBARMENT: Individual or Organization			
I hereby certify that the individual or organization listed above in Part I is not debarred by the federal government from contracting with a federal agency. I further acknowledge: that I am authorized to execute this certification on behalf of the above-named organization; that The College of New Jersey is relying on the information contained herein and that I am under a continuing obligation from the date of this certification through the date of contract award by The College of New Jersey to notify The College of New Jersey in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with The College of New Jersey, permitting The College of New Jersey to declare any contract(s) resulting from this certification void and unenforceable.			
Full Name (Print):		Title:	
Signature:		Date:	

PART III – CERTIFICATION OF NON-DEBARMENT: Individual or Entity Owning Greater than 50 Percent of Organization	
Section A (Check the Box that applies)	
<input type="checkbox"/>	Below is the name and address of the stockholder in the corporation who owns more than 50 percent of its voting stock, or of the partner in the partnership who owns more than 50 percent interest therein, or of the member of the limited liability company owning more than 50 percent interest therein, as the case may be.
Name of Individual or Organization	
Physical Address	
OR	
<input type="checkbox"/>	No one stockholder in the corporation owns more than 50 percent of its voting stock, or no partner in the partnership owns more than 50 percent interest therein, or no member in the limited liability company owns more than 50 percent interest therein, as the case may be.
Section B (Skip if no Business entity is listed in Section A above)	
<input type="checkbox"/>	Below is the name and address of the stockholder in the corporation who owns more than 50 percent of the voting stock of the organization's parent entity, or of the partner in the partnership who owns more than 50 percent interest in the organization's parent entity, or of the member of the limited liability company owning more than 50 percent interest in organization's parent entity, as the case may be.
Stockholder/Partner/Member Owning Greater Than 50 Percent of Parent Entity	
Physical Address	
OR	
<input type="checkbox"/>	No one stockholder in the parent entity corporation owns more than 50 percent of its voting stock, no partner in the parent entity partnership owns more than 50 percent interest therein, or no member in the parent entity limited liability company owns more than 50 percent interest therein, as the case may be.
Section C – Part III Certification	
I hereby certify that no individual or organization that is debarred by the federal government from contracting with a federal agency owns greater than 50 percent of the Organization listed above in Part I or, if applicable, owns greater than 50 percent of a parent entity of _____.	

I further acknowledge: that I am authorized to execute this certification on behalf of the above-named organization; that The College of New Jersey is relying on the information contained herein and that I am under a continuing obligation from the date of this certification through the date of contract award _____ to notify The College of New Jersey in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with The College of New Jersey, permitting The College of New Jersey to declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print):		Title:	
Signature:		Date:	

Part IV – CERTIFICATION OF NON-DEBARMENT: Contractor – Controlled Entities

Section A

<input type="checkbox"/>	Below is the name and address of the corporation(s) in which the Organization listed in Part I owns more than 50 percent of voting stock, or of the partnership(s) in which the Organization listed in Part I owns more than 50 percent interest therein, or of the limited liability company or companies in which the Organization listed above in Part I owns more than 50 percent interest therein, as the case may be.
Name of Business Entity	Physical Address

Add additional sheets if necessary

OR

<input type="checkbox"/>	The Organization listed above in Part I does not own greater than 50 percent of the voting stock in any corporation and does not own greater than 50 percent interest in any partnership or any limited liability company.
--------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Section B (skip if no business entities are listed in Section A of Part IV)

<input type="checkbox"/>	Below are the names and addresses of any entities in which an entity listed in Part III A owns greater than 50 percent of the voting stock (corporation) or owns greater than 50 percent interest (partnership or limited liability company).
Name of Business Entity Controlled by Entity Listed in Section A of Part IV	Physical Address

Add additional Sheets if necessary			
OR			
<input type="checkbox"/>	No entity listed in Part III A owns greater than 50 percent of the voting stock in any corporation or owns greater than 50 percent interest in any partnership or limited liability company.		
Section C – Part IV Certification			
<p>I hereby certify that the Organization listed above in Part I does not own greater than 50 percent of any entity that that is debarred by the federal government from contracting with a federal agency and, if applicable, does not own greater than 50 percent of any entity that in turns owns greater than 50 percent of any entity debarred by the federal government from contracting with a federal agency. I further acknowledge: that I am authorized to execute this certification on behalf of the above-named organization; that The College of New Jersey is relying on the information contained herein and that I am under a continuing obligation from the date of this certification through the date of contract award by The College of New Jersey to notify The College of New Jersey in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with The College of New Jersey, permitting The College of New Jersey to declare any contract(s) resulting from this certification void and unenforceable.</p>			
Full Name (Print):		Title:	
Signature:		Date:	

CONTRACT FOR CONSTRUCTION

This AGREEMENT is entered into as of the ____ day of _____, _____, between

The College: The College of New Jersey (“TCNJ” or the “College”)
 PO Box 7718
 2000 Pennington Road
 Ewing, New Jersey 08628-0718

and

the Contractor: _____ (the “Contractor”)

in connection with

the Project: [_____] (the “Project”)

The Architect: _____

ARTICLE 1

EMPLOYMENT OF THE CONTRACTOR/THE PROJECT DESCRIPTION

1.1 The College employs the Contractor and the Contractor agrees to perform the construction for the Project identified above. The Project is described in more detail in the College’s Plans and Specifications prepared by the Architect.

ARTICLE 2

THE CONTRACT DOCUMENTS

2.1 The Contract Documents consist of this Contract for Construction and the Exhibits attached hereto (“Contract for Construction”), the General Conditions of the Contract for Construction (the “General Conditions”) (and any other General, Supplementary and other Conditions), the Plans and Specifications, and also the following documents:

- (a) The Contractor's Bid excluding limitations and qualifications unless such limitation or qualification is specifically accepted in writing by the College;
- (c) Addenda and Clarifications issued before the bid due date;
- (d) The Project Bidding Schedule; and
- (e) Modifications issued after execution of this Contract for Construction.

These documents all form the "Contract," and are as fully a part of this Contract as if attached hereto or repeated herein. This Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral.

ARTICLE 3

SCOPE OF WORK

3.1 The Contractor shall fully perform the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others. The Contractor shall assume full responsibility for constructing and completing the Project and all the Work, including providing all labor, Subcontractors, materials, equipment, and services reasonably inferable from the Contract Documents and all applicable laws, codes and professional standards, and providing all supervision, management, and scheduling required in the General Conditions and as noted throughout the Contract Documents.

ARTICLE 4

CONTRACT TIMES

4.1 TIME OF THE ESSENCE. All dates and durations specified in this Contract, including the Construction Start Date(s), any Milestones Dates, any Substantial Completion Date(s) and any Final Completion Date(s) (collectively, "Contract Times") are agreed to be of the essence.

4.2 CONSTRUCTION START. The Work shall start no later than ten (10) calendar days after the College issues a Notice to Proceed to the Contractor ("Construction Start Date"). If the Work is to be performed in phases, the College may issue a separate Notice to Proceed with respect to each phase (e.g., Phase 1 Notice to Proceed, Phase 2 Notice to Proceed, etc.) thereby establishing different Construction Start Dates for each phase (e.g., Phase 1 Construction Start Date, Phase 2 Construction Start Date, etc.). The College may, in its sole discretion and at no cost to the College, choose to delay the issuance of a Notice to Proceed and the Construction Start Date for any phase until after the Contractor has achieved Substantial or Final Completion of any other phase.

4.3 MILESTONES. The construction tasks or activities shall be completed within the number of calendar days after the Construction Start Date as set forth in the Notice to Proceed ("Milestone Dates"). If the Work is to be performed in phases, each phase may have

separate Milestone Dates (e.g., Phase 1 Milestone Dates, Phase 2 Milestone Dates, etc.), which dates shall be set forth in the Notice to Proceed for that phase.

4.4 SUBSTANTIAL COMPLETION. The Contractor shall diligently prosecute the Work and shall achieve Substantial Completion of the entire Work as set forth in the Notice to Proceed (“Substantial Completion Date”). If the Work is to be performed in phases, each phase may have a separate Substantial Completion Date (e.g., Phase 1 Substantial Completion Date, Phase 2 Substantial Completion Date, etc.), which date shall be set forth in the Notice to Proceed for that phase. The definition and requirements of Substantial Completion are set forth in the General Conditions. The Substantial Completion Date(s) shall only be changed by a written change order.

4.5 FINAL COMPLETION. The Contractor shall achieve Final Completion of the entire Work as set forth in the Notice to Proceed (“Final Completion Date”). If the Work is to be performed in phases, each phase may have a separate Final Completion Date (e.g., Phase 1 Final Completion Date, Phase 2 Final Completion Date, etc.), which date shall be set forth in the Notice to Proceed for that phase. The requirements for Final Completion are defined in the General Conditions as well as the Specifications of the Project. The Final Completion Date(s) shall only be changed by written change order.

4.6 LIQUIDATED DAMAGES FOR DELAY. If the Contractor fails to achieve Substantial Completion of a phase of the Work or of the entire Work by the Substantial Completion Date(s) set forth in the applicable Notice to Proceed (as extended by Change Order, if applicable), and the delay is not excused by the College, then the Contractor shall pay the College the following amounts as liquidated damages for delay (“Liquidated Damages”) for each calendar day that the phase of the Work or the entire Work is not substantially completed beyond the applicable Substantial Completion Date:

\$ 1/20th of 1% of the total contract price per calendar day.

The College and the Contractor agree that the actual loss to the College from construction delays and the inability to use the Project or any phase of the Project in a substantially completed state are for the most part difficult to quantify, and that the foregoing Liquidated Damages formula results in damages amounts that are a reasonable estimate of the damage to the College for not being able to use the Project in a substantially completed state and are not penalties and are not intended to be penalties. The College may deduct Liquidated Damages from payments due under this Contract, but its failure to withhold Liquidated Damages or to assert a claim for Liquidated Damages shall not be deemed a waiver of the College’s right to withhold or to assert a claim for damages for any delay that occurs at any time on the Project.

ARTICLE 5
CONTRACT PRICE

5.1 CONTRACT PRICE. The Contractor shall be paid \$_____ for the complete performance of this Contract, which was proposed by the Contractor in its bid and accepted by the College (the "Contract Price"). The Contractor shall be entitled to additional compensation for authorized changes which include the cost of the changes and mark-ups included in change orders approved in writing by the College in accordance with the change order provision set forth in the General Conditions.

5.2 ALTERNATES. The Contract Price is based upon and includes the following alternates, if any, which are described in the Contract Documents and are hereby accepted by the College:

[N/A]

5.3 UNIT PRICES. The Contract Price is based upon and includes the following unit prices, if any, which are described in the Contract Documents:

[N/A]

5.4 ALLOWANCES. The Contract Price is based upon and includes the following allowances, if any, which are described in the Contract Documents:

[\$2,500]

ARTICLE 6
PAYMENTS TO THE CONTRACTOR

6.1 PAYMENT. The Contractor will be paid by the College in accordance with this Article and the payment provision in the General Conditions.

6.2 MONTHLY PROGRESS PAYMENTS. The College will make progress payments as the Work proceeds based on written invoices submitted monthly by the Contractor and approved by the Architect and the College. No payments will be made until the Contractor submits a unit schedule break down showing the portions of the total Contract Price for each principal category of Work and value loaded CPM schedule allocating the Contract Price among the schedule activities. Monthly progress payment amounts shall be based on the percentages of the Work completed as of the end of the pay period (less earlier payments). All payment requests or invoices and all payments shall be governed by the payment provision of the General Conditions as well as any special requirements of this Contract, including the requirement that progress payments shall be based on a unit schedule breakdown and a value loaded CPM schedule.

6.3 RETAINAGE. The College will retain 2% of the amount due on each progress payment pending Final Completion of the Work. The holding and release of retainage shall be governed by the payment provision of the General Conditions.

6.4 CHANGE ORDERS. The Contractor shall invoice for change order work in the monthly progress payment invoices as the change order work is performed, but only after a written change order and TCNJ issued Purchase Order has been signed by the College. Changes in the Work shall be governed by the change order provision of the General Conditions.

6.5 FINAL PAYMENT. Upon final completion of all Work included in the Contract Documents including all change orders, acceptance of the Work by the Architect and the College, the satisfactory completion of all of the requirements in the General Conditions for final completion, and the issuance of the Certificate of Final Completion, the Contractor will be paid the fully adjusted Contract Price including any retainage withheld (less earlier payments). The invoice for final payment and final payment shall also be subject to the payment provision of the General Conditions and any special requirements of this Contract.

6.6 PAYMENT TERMS. All invoices and payments shall also be subject to the General Conditions, including the provisions regarding payments, to the right of the College to withhold payments or to make deductions from payments, and to the Prevailing Wage Act requirements set forth in the General Conditions. The College will pay proper final invoices within thirty (30) days of their submission to the College with the approval of the Architect.

6.7 SUBMISSION OF INVOICES. Prior to the submission of the invoice, the Contractor will submit to the College and the Architect, in draft form, a “pencil copy” of the monthly invoice for review and approval setting forth each line item for which the Contractor intends to request payment in that invoice based on the claimed percent completed for that line item. Upon receipt of said “pencil copy”, the College and the Architect shall observe the Work in place and, on the basis of such observations, will either approve the amounts requested or modify the Contractor’s request, based on the College’s independent assessment of the Work in place. The College will then return the pencil copy invoice to the Contractor for the Contractor to then adjust and submit the final invoice with the agreed to percentages completed per line item to the College for payment. No invoice shall be submitted for payment until all amounts and completion percentages have been determined in this manner.

6.8 PROMPT PAYMENT ACT. For the purposes of the State’s Prompt Payment Act, N.J.S.A. 2A:30A-1, et seq.:

(a) An invoice will be deemed to have been received when it is received by the College at the address designated in the pre-construction conference for receipt of the invoices.

(b) The “billing date” as that term is used in N.J.S.A. 2A:30A-2 shall be the earlier of the date upon which an invoice for payment is approved for payment or 20 days after the invoice is received, unless within such 20 day period the invoice is found to be incomplete or

otherwise unacceptable and returned to the Contractor, with a written explanation of deficiencies, the amount withheld and the reasons for withholding payment.

(c) In the event that an invoice is found to be deficient and returned to the Contractor, the “billing date” shall be calculated from the date that a corrected invoice is received.

(d) Payment shall be considered to have been made on the date on which a check for such payment is dated.

(e) Payment terms (e.g., “net 20”) offered by the Contractor shall not govern the College’s obligation to make payment.

(f) The following periods of time will not be included in the calculation of the due date of the Contractor’s invoice:

(i) Any time elapsed between receipt of an improper invoice and its return to the Contractor, not to exceed 20 calendar days; or

(ii) Any time elapsed between the College’s return of an improper invoice to the Contractor and the College’s receipt of a corrected invoice.

If the State’s Prompt Payment Act is amended, or the language stated herein is inconsistent with the language contained in the State’s Prompt Payment Act, the language of the State’s Prompt Payment Act shall control.

6.9 LIMITATIONS ON APPLICABILITY. The provisions of this Article shall not govern the College’s payment obligations nor shall they supersede or modify any other contractual provision allowing the withholding of monies from the Contractor to the extent that the Contractor has not performed in accordance with the provisions of the Contract Documents. This Article also shall not govern the College’s payment obligations nor supersede or modify any other contractual provision governing the Contractor claims for additional compensation beyond the base Contract Price and approved change orders.

6.10 INTEREST. Interest shall be payable on amounts due the Contractor if not paid within thirty (30) calendar days after the billing date specified above, as provided under the State’s Prompt Payment Act, N.J.S.A. 2A:30A-1, et seq. Interest on amounts due shall be payable to the Contractor for the period beginning on the day after the required payment date and ending on the date on which the check for payment is drawn. Interest may be paid by separate payment to the Contractor, but shall be paid within 30 days of payment of the principal amount of the approved invoice. Nothing in this Article shall be construed as entitling the Contractor to payment of interest on any sum withheld by the College for any reason permitted under the Contract Documents or applicable law, or on any claim for additional compensation, over and above sums due under the base Contract Price or approved change orders.

ARTICLE 7
DISPUTE RESOLUTION

7.1 If a dispute or claim arises out of or relates to this Contract, or the breach thereof, and if the dispute cannot be settled through negotiation, the method for resolution of such dispute or claim shall be as provided in the dispute resolution provision of the General Conditions.

ARTICLE 8
TERMINATION OR SUSPENSION

8.1 This Contract may be terminated by the College as provided in the termination and suspension provision in the General Conditions.

8.2 The Work may be suspended by the College or the Contractor as provided in termination and suspension provision in the General Conditions.

ARTICLE 9
INSURANCE AND BONDS

9.1 CONTRACTOR'S INSURANCE. The Contractor shall purchase and maintain insurance as set forth in the insurance and bonds provision of the General Conditions. To the extent the Contractor shall be required to purchase and maintain additional insurance or insurance that differs from that set forth in the General Conditions, such requirements are set forth below:

[]

9.2 SUBCONTRACTOR'S INSURANCE. The Contractor shall ensure that its Subcontractors purchase and maintain insurance as set forth in the insurance and bond provision of the General Conditions.

9.3 PAYMENT AND PERFORMANCE BOND. The Contractor shall furnish the College with a payment bond and a performance bond as set forth in the insurance and bond provision of the General Conditions.

ARTICLE 10
OTHER PROVISIONS

10.1 CONTRACTOR REPRESENTATIONS. The Contractor represents to the College that it has:

(a) **Examination of the Contract Documents.** Examined and carefully studied the Contract Documents and the other documents in the bid documents, and that they are sufficient for performing the Work at the Contract Price.

(b) **Examination of Site.** Visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect the cost, progress, and performance of the Work.

(c) **Familiarity with Law.** Familiarized itself with all federal, state, and local laws and regulations that may affect the cost, progress, and performance of the Work.

(d) **Familiarity with Other Information and Other Documents.** Carefully studied all reports of investigations and tests of the site and subsurface conditions at or contiguous to the site and all drawings of physical conditions at the site including surface or subsurface composition, water, structures and utilities at or near to the site.

(e) **Additional Information Not Required for Bidding or Contract Performance.** Does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price.

10.2 ASSIGNMENT OF CONTRACT. The Contractor may not assign this Contract or any rights under or interests in this Contract including its right to payments under this Contract.

10.3 CONTRACTOR PERSONNEL ASSIGNED. The Contractor's team for this Project shall consist of the following personnel, who shall not be reassigned without the College's prior written consent:

Name

Position

Project Executive

Project Manager

Project Superintendent

Project Scheduler

The College reserves the right to request and have any member of the Contractor's or Subcontractor's staff replaced on the Project for any non-discriminatory reason.

10.4 NOTIFICATIONS/AUTHORIZED REPRESENTATIVE. All Notices required under this Contract shall be in writing, signed by the party giving same, and shall be deemed properly given only if hand delivered, sent by reputable overnight courier, or by registered or certified U.S. mail, return receipt requested, postage pre-paid and addressed as provided below.

Notice to the Contractor/Contractor's Representative. Written notices from the College and/or the Architect to the Contractor should be addressed to the Contractor's Representative:

Attn: _____

Notice to the College/College's Representative: Written notices from the Contractor to the College should be addressed to the College's Representative:

The College of New Jersey
PO Box 7718,
Ewing, New Jersey 08628
Attn: _____

with a copy to the College's General Counsel as follows:

Michael J. Canavan
Vice President and General Counsel
The College of New Jersey
PO Box 7718
Ewing, NJ 08628-0718

The College's Contracting Officer hereby authorizes the College's Representative to receive all Contract related correspondence.

Notice to the Architect: Written notices from the Contractor to the Architect should be addressed to:

Attn: _____

Neither the College's nor the Contractor's Authorized Representatives shall be changed without 7 days' written notice to the other party.

10.5 CONTRACT TERMS, CHANGES, AND LAW. This Contract constitutes the entire agreement between the College and the Contractor, and it shall be governed by the law of the State of New Jersey. The terms and conditions of this Contract may not be changed except by a writing signed by the Contractor and the College.

10.6 COUNTERPARTS AND SIGNATURES. This Contract may be executed in counterparts. All executed counterparts shall constitute one contract, and each counterpart shall be deemed an original. The parties hereby acknowledge and agree that facsimile signatures or signatures transmitted by electronic mail in so-called “pdf” format shall be legal and binding and shall have the same full force and effect as if an original of this Contract had been delivered. The College and the Contractor (1) intend to be bound by the signatures on any document sent by facsimile or electronic mail, (2) are aware that the other party will rely on such signatures, and (3) hereby waive any defenses to the enforcement of the terms of this Contract based on the foregoing forms of signature.

10.7 NO IMPLIED COVENANTS OR WARRANTIES. The Contractor acknowledges that there are no implied covenants or warranties from the College under this Contract.

10.8 SEVERABILITY. If any term or provision of the Contract Documents are to any extent held invalid or unenforceable, and if the provisions of the Contract Documents that are essential to each party’s interests otherwise remain valid and enforceable, then (i) the remaining terms and provisions in the Contract Documents will not be affected thereby, (ii) each term and provision of the Contract Documents will be valid and enforceable to the fullest extent permitted by law, and (iii) the court/arbitrator(s) will give the offending provision the fullest meaning and effect permitted by law.

10.9 HEADINGS. The headings used in this Contract are for convenience and reference only, and are not part of this Contract, and do not in any way control, define, limit or add to the terms and conditions hereof.

10.10 INTERPRETATION/RULES OF CONSTRUCTION. The parties acknowledge that each party, and if it so chooses, its counsel, have reviewed and revised this Contract and that the normal rule of construction to the effect that any ambiguities be resolved in favor of the non-drafting party shall not be employed in the interpretation of this Contract or any amendments or exhibits thereto.

THE COLLEGE OF NEW JERSEY

By _____
Shawn Cappellano-Sarver Associate
VP for Facilities and Operations

By _____
Mark Mehler, Associate VP
for Finance & Budget Planning

Date _____

Date _____

By _____
Sharon Blanton,
Vice President for Operations

Date _____

By _____
Anup Kapur,
Executive Director of Procurement

Date _____

CONTRACTOR:

By _____

Title _____

Date _____

GENERAL CONDITIONS
OF THE
CONTRACT FOR CONSTRUCTION

Last Revised September 2024

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ARTICLE 1
**CONTRACT DOCUMENTS, INTERPRETATION, INFORMATION FOR BIDDERS,
CLAIMS BASED ON BID AND CONTRACT DOCUMENTS**

1.1 Definitions.

Terms defined in the Contract for Construction shall have the meaning provided therein. Definitions for the purpose of these General Conditions include the following:

Addendum: A document issued to bidders by the College prior to the bid due date which supplements, revises or modifies the bid solicitation documents furnished for bidding purposes, and which must be identified and included in bids for the Contract.

Architect: The Architect (A/E) engaged by the College to design the Project, to prepare the design documents and assist with bid documents, and may administer the Contract and act as the agent of the College as described in the Contract.

Bulletin: A document prepared by the Architect describing proposed changes or additions to the Work in the Contract Documents that is issued after Contract award. If the College decides to implement the change, it will provide the bulletin to the Contractor and ask it to submit a change order proposal or request (in accordance with the change order provisions in the Contract for Construction, these General Conditions and other sections of the bidding documents).

Change Order Proposal or Change Order Request: A written proposal or request submitted by the Contractor in accordance with the change order provision of the Contract for Construction, these General Conditions and other sections of the bidding documents, including proposals submitted in response to Contract Change Directives, which proposes cost, time and other terms under which the Contractor will perform changed work under the Contract. If accepted by the College, a written change order signed by the Vice President for Administration and a TCNJ Purchase Order signed by the Contracting Officer of the College, and if accepted by the Contractor in writing, it will become part of the Contract as a change order.

The College's Representative: The College's Representative is a person or persons designated by the College to act on its behalf in administering the Contract for the College. The College's Representative may include the Director of Campus Construction, the Project Manager or an independent construction manager working for the Office of Campus Construction.

College Site Superintendent: The College Site Superintendent is a person or persons designated by the College to witness, observe, record and report on activities in and around the construction site. The Site Superintendent does not have the authority to stop or change the scope of the Work of the Contract Documents.

Contract: The Contract Documents all form the Contract. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual

relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the College and a Subcontractor or a Sub-subcontractor, (3) between the College and the Architect or the Architect's consultants or (4) between any persons or entities other than the College and the Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect's Contractor's duties.

Contract Amendment: The Contract can only be amended by (1) a written amendment identified as such that is signed by the College and the Contractor, (2) a change order signed in accordance with the Contract Documents, (3) a written Contract Change Directive (CCD) issued by the College that should result in a change order unless issued to address some fault of the Contractor, (4) a written approval or acceptance by the College or the Architect of a change requested by the Contractor in writing, provided the request for a change is specifically identified in a submittal.

Contract Change Directive (CCD): A Contract Change Directive (CCD) is a written directive issued by the College which orders an addition, deletion, clarification of a disputed item or revision in the Work, or a response to an emergency. A CCD does not by itself change the Contract, but it should result in a change order which does change the Contract Price or Contract Times if warranted. A CCD should specify the terms of the change order (if deemed warranted by the College) which will result, and/or specify a deadline for the submission by the Contractor of a proper change order request, and/or contain other similar terms.

Contract Documents: The Contract Documents are enumerated in Article 2 of the Contract for Construction.

Contract Limit Lines: The lines shown on the Plans that limit the boundaries of the Project site, and beyond which no construction work or activities shall be performed by the Contractor unless otherwise specified in the Contract Documents, including the Plans and Specifications and supplemental General Conditions.

Contracting Officer: The Associate Treasurer of the College shall be the Contracting Officer in connection with the Contract and the Project. The Contracting Officer and other designee shall have authority to act on behalf of the College under the Contract.

Field Order (FO): A written order issued by the Architect or the College which requires minor changes in the Work that do not result in a change in the Contract Price or the Contract Times. If the Contractor believes that a field order warrants the issuance of a change order that changes the Contract Times or Contract Price, it must notify the College and the Architect in writing within 48 hours, and its notice must specify the terms of the change order that it believes are warranted, including specific time and price change requests.

Plans: The Plans are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, and diagrams.

Project: The Project is the total construction of the Work performed under the Contract Documents and may include construction by the College and by separate contractors that the College has specifically identified.

Specifications: The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services prepared by the Architect or the College.

Supplemental General Conditions: The part of the Contract Documents which amends or supplements these General Conditions for the Project.

Work: The construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

1.2 Intent Of Contract Documents.

The intent of the Contract Documents is to describe a functionally complete and aesthetically acceptable Project to be constructed and completed by the Contractor in every detail in accordance with the Contract Documents. Any Work, services, materials, equipment or documentation that may be reasonably inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce a complete Project shall be supplied by the Contractor whether or not specifically identified at no additional cost to the College. Where the Contract Documents describe portions of the Work in general terms but not in complete detail, only the best construction practices and only materials and workmanship of the first quality are to be used. Only where the Contract Documents specifically describe a portion of the Project as being performed by others is the Work to be considered to include less than the entire Project.

1.3 Interpretation Of Contract Documents.

When two or more interpretations of a Specification for the Work are possible, the most stringent or the highest cost interpretation shall apply as determined by the Architect. The Architect (or in the absence of the Architect, the College) shall be the sole interpreter of the Plans and Specifications and the Contractor's performance therewith. It is the intent of these Plans and Specifications to provide materials of a quality consistent with the highest standards provided under similar circumstances in the same general geographical area and that will result in long- term use and efficient operation.

1.4 Law And Referenced Standards.

The Contractor is required to comply with all federal, state and local laws and regulations that apply to the Project, the Work and the Contract. Where the Contract Documents refer to any publication, including but not limited to any standard, which affects any portion of the Work or the Project, it shall be considered to mean the edition or revision in effect on the bid due date unless otherwise specified in the Contract Documents. No provision in any publication including

any standard shall create an obligation on the part of the College or the Architect to supervise or direct the Contractor's Work.

1.5 Plans And Specifications.

The Plans will include general plans and such details as deemed necessary to give a comprehensive representation of the construction required. The Contractor shall keep one set of Plans available at the Project site, which shall be available for inspection by the College and the Architect at all times. All alterations affecting the requirements in the Plans must be authorized by the College and the Architect in writing, and shall be promptly noted on the Contractor's record set of Plans, which are maintained at the site for inspection by the Contractor, the College and the Architect.

1.6 Order Of Precedence Of Contract Documents.

Each of the Contract Documents is an essential part of the Contract, and a requirement specified in one part of the documents is binding as if specified in all. The Contract Documents are intended to be complementary and to describe and provide for a complete Project. The obligations of the Contractor under the various Contract Documents shall be cumulative and to the extent that one of the Contract Documents imposes a stricter or more costly requirement or higher standard upon the Contractor than does another Contract Document, the more stringent or more costly requirement or higher standard, as determined by the Architect, shall apply. Otherwise, if there is any conflict among the Contract Documents, the signed Contract for Construction and all approved change orders shall control. As to the other Contract Documents, the order of precedence shall be as follows:

- (a) Contract for Construction
- (b) Addenda
- (c) Supplemental General Conditions
- (d) General Conditions
- (e) Specifications
- (f) Plans
 - i. Notes
 - ii. Large Scale Details
 - iii. Sections
 - iv. Elevations
- (g) Scope of Work Description

1.7 Organization Of Plans And Specifications.

The arrangement of the Plans and the organization of the Specifications into divisions, sections or articles shall not be construed by the Contractor as being intended to divide or allocate the Work among Subcontractors or trades or to establish the scope of the Work to be performed by particular Subcontractors or trades. The College is not liable for the Contractor dividing and separating the Contract Documents into individual packages to Subcontractors. Items that the Contractor fails to include or provide for shall be at the Contractor's sole risk and

cost. The Contract Documents work together as a whole and, therefore, the Contractor is required to coordinate the entire package with all its Subcontractors.

1.8 Required Approvals.

In all cases where approvals or decisions under the Contract Documents are required from the College, the Work shall not proceed without the required approvals and decisions in writing.

1.9 Conformity Of Work To Contract Documents.

All Work performed shall conform to the lines, grades, cross-sections, dimensions, material requirements, tolerances, details and other information in the Contract Documents. The purpose of tolerances is to accommodate occasional minor variations from the middle portion of the tolerance range that are unavoidable despite reasonable construction practices. When a maximum or minimum tolerance value is specified, the material and the Work shall be controlled so that they shall not be preponderantly of borderline quality or dimension.

1.10 Work Involving Existing Structures.

On projects involving alterations, remodeling, repairs, installations or other work in pre-existing structures or systems, the Contractor shall by personal inspection of the existing structures and systems satisfy itself as to the accuracy of any information provided that may affect the quantity, size and/or quality of materials required for a satisfactorily completed Project, including information that is not identified or included in the Plans and Specifications. The Contractor shall provide all material and labor required to complete the Work based on conditions that can be reasonably observed by a competent and diligent contractor before bidding.

1.11 Verification Of Dimensions.

The Contractor shall verify all dimensions at the job site and shall take any and all measurements necessary to verify the information in the Plans. The Contractor shall properly and accurately layout and survey the Work. Any errors or discrepancies affecting the layout of the Work shall be reported to the Architect and the College immediately in writing. No Work affected by any error or discrepancy shall proceed until such discrepancy is resolved by a written decision of the Architect with the consent of the College.

1.12 Manufacturer Literature.

Manufactured articles, materials and equipment shall be installed, applied, connected, erected, used, cleaned and conditioned in accordance with the manufacturer's written instructions unless otherwise specified in the Contract Documents. If there is any conflict between manufacturer literature and the Contract Documents, it shall be reported by the Contractor to the Architect and the College in writing, and the Contractor shall not proceed without a written decision by the Architect with the consent of the College.

1.13 Quality -- General Requirement.

Where no explicit quality or standard are specified for Work, materials or equipment, they shall be new, of good quality, free of defects, suitable for their intended use, in conformity with the Contract Documents, and consistent with the highest quality of the surrounding Work and of the construction of the Project generally.

1.14 Examination Of Contract Documents Before Bidding/Errors.

The Contractor represents and warrants that before bidding it examined and carefully studied the Contract Documents and other documents included or referred to in the bid documents. The Contractor also represents and warrants that the documents are sufficient for bidding and performing the Work at the Contract Price. Should it appear that any of the Work or materials are not sufficiently or properly detailed or explained in the Contract Documents, the Contractor shall notify the College in writing before the bid deadline for submitting questions.

Errors, omissions, conflicts, discrepancies, inconsistencies or other defects in the Contract Documents or between the Contract Documents and any codes, standards or other applicable documents which are capable of being discovered by a diligent and competent contractor before bidding shall be reported to the College in writing before the bid deadline for submitting questions. If errors, omissions, inconsistencies or other defects in the Contract Documents are not discovered until after the bid due date, the Contractor shall promptly notify the College and the Architect of them in writing, provide written recommendations regarding changes or corrections to resolve any such errors, omissions, inconsistencies or defects, and obtain the Architect's written interpretation and approval with the consent of the College before proceeding with the Work affected.

1.15 Site Information.

Soil borings, test pits or other subsurface or site information regarding the physical site and subsurface conditions on or near the site may have been obtained from independent contractors for the purpose of preparing the design documents for the Project rather than for the purpose of contractor estimating or bidding. Such information may be identified or included in the Contract Documents so that it can be reviewed by bidders during the bidding phase, but because of the limited nature and purpose of the information, it shall not be considered to be part of the Contract Documents, and the Contractor must assume responsibility for interpreting and relying upon the information.

1.16 Sufficiency Of Documents Provided For Bidding.

The Contractor represents and warrants that before bidding it carefully studied all reports, surveys and documents included or identified in the bid documents regarding observations, inspections, investigations and tests of the site and subsurface conditions at or near the site, and all information provided to bidders regarding physical conditions at or near the site, including surface and subsurface composition, water, structures and utilities, and that it determined that no further examinations, investigations, tests, studies or data were necessary for bidding or the performance of the Work at the Contract Price. If the Contractor concluded that additional

information is required, it must notify the College in writing before the bid deadline for submitting questions.

1.17 Examination Of Site Before Bidding.

The Contractor represents and warrants that before bidding it familiarized itself with the site and was satisfied as to the general, local and site conditions which may affect the cost, progress and performance of the Work and the Contract, and that its bid and bid price take into account all such conditions. No additional costs will be borne by the College for conditions that existed and were reasonably observable or described at the time of bidding.

1.18 Hazardous Materials On Site.

The Contractor will not be responsible for hazardous environmental conditions uncovered or discovered on the site that were not disclosed in the Contract Documents and that were not caused by the Contractor or anyone working through or under the Contractor. If such conditions are discovered, the Contractor shall stop work and notify the College in writing immediately. The College may issue a written directive to the Contractor requiring it to stop work until the hazardous environmental condition is remedied, and the Contractor will be entitled to an extension of the Contract Times if an extension is warranted under the provisions of the Contract for Construction and these General Conditions regarding extensions. The College may also make changes in the Contract in response to the conditions, and the Contract will be changed in accordance with the change order provisions in the Contract for Construction and these General Conditions.

1.19 Limitation On Claims Based On Contract Documents And Information Provided For Bidding.

The Contractor may not assert claims for extra compensation beyond the bid and Contract Price for constructing the completed Project by reason of any errors, omissions, inconsistencies, or defects in the Contract Documents that are discoverable by a diligent and competent contractor, because of (i) its obligation to review and study the bid documents before submitting its bid, (ii) its representation in the Contract Documents that it did so, and (iii) its obligation to notify the College in writing of any such errors, omissions, inconsistencies, or defects before submitting its bid. In addition, the Contractor may not assert claims for extra compensation beyond the bid and Contract Price for constructing the completed Project by reason of any lack of information affecting the construction of the Project at the time of bidding, or errors in the information included or referenced in the bid documents except to the extent explicitly permitted by the Contract for Construction or these General Conditions. The Contractor shall notify the College in writing before submitting its bid of any errors or omissions in the information provided or be precluded from seeking extra compensation or asserting a claim. This limitation on claims may be modified and further restricted in the signed Contract for Construction when the Contract Documents explicitly require the Contractor to participate in any aspect of the design phase.

The Contractor may assert claims for extensions and additional compensation in accordance with the provisions of the Contract for Construction and these General Conditions if

information regarding the site that is identified in the bid or Contract Documents is factually inaccurate, and the inaccuracy is one that a reasonably competent and diligent contractor would not discover in preparing a bid. The Contractor may not assert a claim for an extension or extra compensation when it claims, not that the information is factually inaccurate, but rather that conclusions, inferences or judgments made in reliance on accurate information prove to be incorrect.

ARTICLE 2

THE COLLEGE

2.1 General Rights And Responsibilities Of The College.

The College as the owner of the Project is entitled to have the Contractor perform and complete the Work in accordance with the Contract Documents, including the time of completion, quality and documentation requirements of the Contract. The College for its part undertakes to furnish the site, to notify the Contractor of any restrictions on the site that could affect the Contractor's performance of the Contract, to obtain approvals relating to the site that are needed for the construction to proceed, to pay the Contractor in accordance with the Contract, and to act reasonably in reviewing all documentation, claims and questions properly submitted to it under the Contract. The College also undertakes to provide the information and items that it expressly agrees in the Contract Documents to provide.

The College shall also have such other rights and responsibilities as are specified in the Contract Documents. The College will not supervise the Contractor's Work or be responsible for the Contractor's construction means and methods, or the Contractor's safety practices, or any failure of the Contractor to comply with the Contract Documents or any laws or regulations.

2.2 The College's Representative, Authority To Decide Contract Questions.

The Contracting Officer delegates its authority to the College's Representative who is authorized to act and make decisions on behalf of the College regarding matters specified in the Contract Documents. However, the College's Representative is not authorized to make or agree to material changes to the Contract Documents or changes involving the Contract Times or Contract Price.

All changes to the Contract Documents including change orders that modify Contract Price, Contract Times or other material change to the Contract Documents must be reviewed and approved by the Contracting Officer or his/her designee. The Contracting Officer designates that the Vice President for Administration is authorized to approve change orders.

The College's Representative, in consultation with the Architect, is authorized to decide on behalf of the College, all questions regarding the quality, acceptability and rate of progress of the Work, all questions regarding the interpretation of the Contract Documents, the acceptability of the performance of the Contract by the Contractor, and the compensation due to the Contractor. Where the College's Representative is authorized to render decisions under the

Contract for Construction or these General Conditions regarding disputes or claims, he/she shall consult with the Architect and shall not act arbitrarily so as to unfairly benefit either the College or the Contractor.

2.3 Required Approvals.

In all cases where approvals or decisions are required from the College under the Contract Documents, such approvals or decisions shall be made reasonably, except in cases where a specific standard applies such as, for example, situations where the College is entitled to exercise unqualified discretion in selecting the types of materials, products or construction which it decides to procure.

2.4 Information Required From The College.

Information which the Contract Documents specify the College will provide shall be provided with reasonable promptness.

2.5 Permits.

The College will arrange and pay for permits and permit inspections, including building code permits except to the extent that the Specifications specify otherwise. The Contractor will arrange for and coordinate all inspections and the dates and times for all inspections with local, state and independent agencies and include the College's Representative or the Site Superintendent.

2.6 The College's Inspection Of The Project.

The College shall have the right to be represented at the site by the College's Representative(s), the Site Superintendent and other College employees designated by the College, the Architect, and other consultants designated by the College or the Architect. The College and its representatives shall have the right to visit the site, inspect Work and materials, inspect Project documentation, conduct tests, attend meetings, meet with the Contractor' and the Subcontractors' representatives, investigate problems, conduct studies, and make reports. The College and its representatives shall be allowed access to all parts of the Work, and the Contractor shall furnish them with information and assistance when they request it.

The Contractor shall give the College and the Architect timely notice of readiness of Work for observation, inspection and testing, and shall cooperate with these efforts. The Contractor shall also comply with any inspection and testing procedures specified in the Contract Documents.

The Contracting Officer, the Architect and the College's Representative shall have the right to direct the Contractor to remove or uncover unfinished Work if deemed necessary to inspect Work or materials in place.

If Work is covered before it is inspected because the College, the Architect or any consultant were not afforded reasonable notice and an opportunity to inspect, or where the

Contract Documents or any law require an inspection, the Contractor shall uncover and replace Work at its own expense if required to do so by the College.

If any other portion of the Work not specifically required to be inspected is covered, and the College or the Architect did not ask to observe or inspect the Work before it was covered, the College may nonetheless ask to inspect the Work. If the College makes such a request, the Contractor shall uncover the Work for inspection. If the Work uncovered is found to be in accordance with the Contract Documents, the cost of uncovering and replacement shall be paid by the College by a change order. If the Work uncovered is found not to be in compliance with the Contract Documents, the Contractor shall pay all costs of uncovering and replacement, and also remedy the defect or deficiency at its own cost.

The College at all times retains the right to stop all or part of the Work by a written direction because of defective Work until the defect is eliminated. This right shall not give rise to any duty on the part of the College to exercise the right for the benefit of the Contractor or those performing its Contract.

The College at all times retains the right to stop all or part of the Work due to concerns with the effectiveness of the Contractor's safety program required under Article 5.2. The College may require the Contractor to provide a written plan to correct safety deficiencies, an on-site safety supervisor, or other administrative or engineering controls to ensure the safety of personnel impacted or potentially impacted by Contractor operations. The Contractor shall indemnify, defend and hold the College harmless from fines issued by Federal, State or Local OSHA enforcement.

2.7 The College's Inspectors, Duties And Limitations

If the College designates inspectors to inspect Work and materials and Project documentation, they will not be authorized to alter or waive any requirements or provisions in the Contract Documents. The College's inspectors will not be authorized to issue instructions contrary to the Contract Documents or to act as foremen or employees of the Contractor. The College's inspectors have the authority to reject unsuitable Work or materials, subject to written confirmation by the College's Representative. If the Contractor believes that any action of a College inspector is contrary to the Contract Documents, it shall notify the College's Representative and the Architect in writing within 48 hours. The College does not undertake to have inspectors sufficient in number to inspect every item of Work or material as it is provided, or to have inspectors with the expertise needed to judge every aspect of the Work.

The Contractor shall remain responsible for defective Work or materials irrespective of any inspections or lack of inspections during the Work. If the Contractor seeks a binding determination of the acceptability of Work or materials during the performance of the Contract, it shall do so by making a written request for such a determination to the College's Representative with a copy to the Architect.

2.8 The College's Rejection Of Defective Work.

The College shall have the right to reject defective Work, materials, or equipment at any time, and to require the Contractor to remove and replace it at the Contractor's expense. The Contractor shall also be responsible for repairing damage to other work caused by defects or deficiencies in its Work. The College's Representative, upon consultation with the Architect, may elect to accept Work or materials that do not conform to the Contract Documents and to credit or reduce the Contract Price, but the College shall have no contractual obligation to elect this remedy. Changes to the Contract Documents in these circumstances shall be recorded as a change order under the change order provision of the Contract for Construction and these General Conditions.

ARTICLE 3 **THE ARCHITECT**

3.1 The Architect's General Role.

The Architect is, by contract with the College, responsible for the design of the Project. During construction, the Architect is responsible for reviewing the Contractor's submittals to determine if they conform to the Contract Documents and good industry practice, to provide some level of inspection to determine if Work and materials provided by the Contractor conform to the Contract Documents and good industry practice, and to review the Contractor's payment applications. During the performance of the Work, the Architect may investigate any defects and deficiencies in the Work or materials provided and make recommendations to the College regarding the defects or deficiencies. The Architect will conduct inspections to determine if the Contractor has achieved proper Substantial and Final Completion and submitted all documents required at Substantial and Final Completion. The Contractor shall cooperate with and render assistance to the Architect in the performance of these duties.

3.2 The Architect's Access And Facilities.

The Contractor shall allow the Architect and its consultants access to the Project at all times and shall facilitate their access to inspect Work and materials and Project documentation. The Architect and its consultants shall be permitted to attend job meetings, scheduling meetings and other meetings at the site and the Contractor shall facilitate their ability to do so. The Contractor shall provide an office at the site for the Architect if the Specifications require it to do so.

3.3 Limitation Of The Architect's Responsibilities.

The Architect will not be responsible for or have control of construction means and methods or safety precautions and programs in connection with the Work. The Architect will not be responsible for or have control of acts or omissions of the Contractor, its Subcontractors, or any of their agents or employees, or any other person performing any of the Contract Work.

3.4 The Architect's Rejection Of Work.

The Architect may recommend rejection of Work or materials that it believes does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, it may recommend to the College special inspections or testing of Work or materials, including completed Work and materials.

3.5 The Architect's Review Of The Contractor's Submittals.

The Architect will review, approve or take other appropriate action regarding the Contractor's submittals, such as shop drawings, product data and samples, to assure that they conform with the design requirements and Contract Documents. The approval of a specific item shall not be deemed to constitute approval of an assembly of which the item is a component.

3.6 The Architect's Review Of The Contractor's As-Built Plans.

The Architect will periodically review the Contractor's as-built plans maintained at the site to ensure that they are up-to-date, and shall review the completed as-built plans at Project completion to ensure that they are complete and are provided to the College.

3.7 The Architect's Determination Of Substantial and Final Completion.

The Architect will conduct inspections to determine the dates of Substantial and Final Completion and to determine if the Contractor has properly Substantially and Finally completed the Project. The Architect will obtain from the Contractor all written warranties and all other documents that the Contractor is required to provide at Substantial and Final Completion of the Project.

ARTICLE 4 **THE CONTRACTOR**

4.1 The Contractor's Responsibility For Performance Of The Contract And Work.

The Contractor is the person or entity identified as such in the Contract. The Contractor shall be lawfully licensed in the jurisdiction where the Project is located.

The Contractor shall perform all of the duties in the Contract Documents, shall furnish the labor, materials and equipment to complete the construction of the Project in accordance with the Contract Documents, and furnish all services, labor, materials and equipment necessary or appropriate to construct the Project. The Contractor shall manage, supervise, schedule, direct, and inspect the Work as competently, skillfully, and efficiently as possible, and shall be solely responsible for all construction means, methods, techniques, safety, security, sequences, procedures, and coordination.

The Contractor shall comply with all applicable laws, and shall establish and maintain reasonable quality assurance and safety programs in connection with its Work. The Contractor shall complete the Work in compliance with the Contract Documents and by Milestone, Substantial Completion and Final Completion Dates in the Contract for Construction or any authorized extensions thereof. The Contractor shall maintain good order and discipline at the site at all times.

4.2 The Contractor's Key Personnel.

The Contractor shall assign to the Project a Project executive, Project manager, superintendent, and scheduler, and such other key personnel as are specified in the Contract for Construction or as required to carry out the requirements of the Project. The Contractor shall not remove or replace such key personnel without the College's written approval. The College has the authority to reject key personnel assigned to the Project and have replaced any staff member of the Contractor or any of the Subcontractors for any non-discriminatory reason, including, but not limited to, safety violations, poor past performances, drug use, or inappropriate behavior.

4.3 The Contractor's Supervision Of Contract Work/The Superintendent.

The Contractor shall supervise and be responsible for the acts and omissions of the Contractor's employees, agents, Subcontractors, sub-subcontractors, suppliers and other persons performing portions of the Work and the Contract. The Contractor's designated Project superintendent shall be at the Project site at all times when Work is in progress. The Contractor may designate in writing an alternate superintendent who must be approved in writing by the College. The superintendent (or alternate) shall have full authority to represent and act for the Contractor at the site and shall have full authority to execute orders and directives of the College without delay.

Communications from the College or the Architect to the superintendent shall be deemed to have been given to the Contractor. The superintendent shall be capable of and authorized to respond to all hazardous and unsafe conditions at the Project site and to implement prompt corrective measures to eliminate all unsanitary, hazardous or dangerous conditions at the site. The College may suspend all or part of the Work at the Project site if the superintendent (or alternate) is not present at the Project site. Such a suspension shall not be the basis of a claim against the College, including without limitation any claim for additional time or extra cost.

The superintendent shall attend all meetings at the Project site including job meetings, scheduling meetings, and meetings with the College and/or the Architect. The superintendent shall have a written plan that must be approved in writing by the College for responding to emergencies when the Work is not in progress. The Contractor shall also utilize qualified competent craftsmen on the Project.

4.4 Cooperation With The College And Other Contractors.

The College reserves the right to contract for and perform other or additional work on or adjacent to the Project site. When separate contracts are let within the limits of the Project site, or in areas adjacent to the site, the Contractor shall perform its Work so as not to interfere with or

hinder the progress or completion of the work being performed by other contractors. The Contractor shall also affirmatively cooperate with such other contractors and coordinate its activities with theirs, and include coordination measures in the Project Schedule. The Contractor shall arrange its Work and shall place and dispose of materials being used so as not to interfere with the operation of other contractors within the limits of the Project site. The Contractor shall join its Work with that of the other contractors in an acceptable manner and shall perform its Work in proper sequence with that of other contractors.

If there is a disagreement as to the respective rights of the Contractor and others doing work within the limits of or adjacent to the Project site, the College shall determine the respective rights of the contractors involved to secure the satisfactory completion of all affected work. The Contractor shall not be entitled to additional compensation beyond its Contract Price that may arise because of inconvenience, delay, or loss experienced by it as a result of the presence and operations of other contractors working within the limits of or adjacent to the Project site.

The College reserves the right to occupy any portion of the Project that is ready for occupancy prior to Final Completion and acceptance of the Project, after Local and State Construction Enforcing Agency approval.

The occupancy of any portion of the Project does not constitute an acceptance of any Work nor does it waive the College's right to liquidated damages or constitute an acceptance of any Work, as the Project will be accepted as a whole and not in units. Prior to such occupancy, however, the Architect, a representative of the College, and the Contractor shall fully inspect the portions of the Project to be occupied, preparing a complete list of omissions of materials, faulty workmanship, or any items to be repaired, torn out or replaced. The College will assume responsibility for damage to premises so occupied of any items not on this list when such damage is due to greater than normal wear and tear, but does not assume responsibility for improper or defective workmanship or materials.

4.5 Performance Of The College Directives.

When the College issues a written directive to the Contractor under the authority of any provision in the Contract for Construction or these General Conditions, the Contractor shall perform as directed in a diligent manner and without delay. Compliance with written directives shall not adversely affect the rights of the Contractor under the Contract for Construction, these General Conditions or law, but if the Contractor objects to a directive of the College, or claims that a directive infringes upon its rights or entitles it to a change order, it shall notify the College in writing within 2 business days of any directive and describe any objection it has to the directive and the reasons for its objection. Objection to a written directive does not relieve the Contractor of the obligation to comply with the directive and proceed in a diligent manner to implement the directive without delay.

ARTICLE 5

PERFORMANCE OF WORK

5.1 Protection Of Work/Materials.

The Contractor, shall at its own expense, protect all finished Work and materials from damage and keep them protected until the Project is accepted as Substantially Completed, and shall repair or replace any Work or material damaged before acceptance. After the Project is accepted as Substantially Complete, the Contractor will remain responsible up through Final Completion for damage to Work and materials caused by it or its Subcontractors or others participating in the performance of its obligations under the Contract Documents. The Contractor shall also secure and protect its own tools, equipment, materials and supplies, and the College shall have no liability for damage, theft or injury to the Contractor's property.

5.2 Safety And Safety Programs.

The Contractor shall have full responsibility for safety at the Project site at all times up to Final Completion and acceptance of the Project and the Contract. The Contractor shall provide for the safety of all individuals on the Project site, and take measures to ensure that individuals on or near the Project site are not injured by the performance of the Contract. The Contractor shall establish and maintain a Project safety program in accordance with all applicable laws including OSHA, good industry practice, and any additional requirements in the Contract Documents. If the College or the Architect become aware of an unsafe situation, the Contractor will immediately respond to remedy the safety concern and shall take all other actions necessary to comply with Article 2.6.

5.3 Emergencies Affecting Safety.

If there is an emergency affecting the safety of persons or property, the Contractor shall take immediate action to prevent damage, injury or loss. The Contractor shall notify the College in writing of the situation and all actions being taken immediately or as soon as possible. If, in the opinion of the Contractor, immediate action is not required, the Contractor shall notify the College in writing of the emergency situation and proceed in accordance with the College's instructions. However, if loss, damage, injury or death occurs that could have been prevented by the Contractor's prompt and immediate action, the Contractor shall be liable for all costs, damages, claims, actions, suits, attorney's fees and other expenses that result.

Any additional compensation or extension of time claims by the Contractor on account of emergency Work shall be determined in accordance with the change provisions of the Contract for Construction and these General Conditions. The Contractor shall be responsible for emergencies and costs and delays resulting therefrom that could have been foreseen or prevented with normal diligence, planning, and supervision of the Work, or that are caused by the Contractor's failure to properly perform the Contract.

The Contractor shall provide the College with a list of the names and telephone numbers of its employees and employees of each Subcontractor designated to be contacted in case of an emergency during non-working hours. A copy of this list shall be displayed prominently at the

Project site so that it is visible when the Project site is secured and shall be provided to the College's campus police department.

5.4 Working Hours.

Except as required for the safety or protection of persons or property, or as specified in the Contract Documents, all Work at the site shall be performed during regular working hours, and not on Saturdays, Sundays, legal holidays, the College's commencement days, resident move-in and move-out days or other days specifically noted in the Contract Documents without the prior written consent of the College, which will not be unreasonably withheld.

5.5 Site Security.

The Contractor shall provide, maintain and oversee security at the site if required in the Specifications. The Project site shall be fenced as specified in the Specifications, and the Contractor shall control access when gates are unlocked or open. The fence shall provide a physical barrier to the site and protection from visible nuisance. At a minimum, the fence shall be firmly secured with buried posts or weighted feet, top rails, metal fabric, and locking gates. Contractor shall immediately notify the College in the event of unauthorized entry to the site.

5.6 Site Use.

The Contractor shall confine construction equipment, storage and Work to the Project site absent written approval from the College. Any request by the Contractor to use areas outside the Project site must be described in written form and included with the Contractor's bid.

5.7 Building Access.

The Contractor shall be responsible for the sign out, distribution, safe use and return of all building keys and/or access cards, and shall be responsible for all costs associated with failure to return these items (e.g., the cost to re-key/re-implement the system).

5.8 Minimize Interruption.

The Contractor acknowledges that the College is an existing educational facility and that classes may be in session during construction. The Contractor agrees to conduct its Work with as little disruption as reasonably possible to the College's students, faculty, employees and guests, and will maintain a safe environment for the College's students, faculty, employees and guests, in addition to the Contractor's employees and workers of all tiers. The Contractor and its Subcontractors and employees of all tiers must display courtesy and consideration with and shall refrain from discriminating against or harassing the College's students, faculty, employees, visitors and guests at all times. The Contractor will not allow smoking, vaping, alcohol, drugs, any firearms, or other weapons on the College's property at any time. The Contractor shall abide by all campus traffic regulations.

5.9 Submittals (Shop Drawings, Product Data, Samples).

Prior to the beginning of Work on the Project, the Contractor shall furnish to the Architect and the College for their review and approval, a schedule setting forth all the submittals, including shop drawings, product data and samples required by the Contract Documents, that the Contractor intends to submit to the Architect for review and approval, the date upon which the Contractor shall make each such submittal and the date upon which the Architect shall complete its review of each such submittal, which in no event shall be less than ten (10) days from receipt ("Submittal Schedule"). The Architect and the College shall identify all submittals that will require more than ten (10) days to review and notify the Contractor of the required review period. The Contractor shall adjust the Submittal Schedule to accommodate the extended review period. The Architect shall endeavor to conduct its review and approval of all submittals in accordance with the Submittal Schedule. In the event that a submittal is made that is not set forth on the Submittal Schedule, the Architect shall review and return such submittal within ten (10) working days from receipt.

Submittals shall be complete as to quantities, details, dimensions and design criteria. The Architect will approve and the College will review submittals if they conform to the Contract Documents, the design concept and good industry practice. The Contractor shall note its approval of all submittals and the date for any submittals prepared by any Subcontractor or supplier, and it shall be responsible for determining and verifying all materials, field dimensions, field construction criteria, and coordination requirements pertaining to the submittal.

The Contractor will not be relieved of responsibility of deviations in submittals from the requirements in the Contract Documents by reason of approvals of the submittals unless the Contractor specifically identifies the deviation in the submittal and the Architect and the College expressly approve the deviation in writing. The Contractor shall be responsible for errors or omission in its submittals. No Work or materials included in a submittal shall begin until the submittal is approved by the Architect and the College.

5.10 Layout And Dimensional Control.

The Contractor shall be responsible for locating and laying out the Project components and all of the Project parts on the Project site in strict accordance with the Plans, and shall accurately establish and maintain dimensional control. The Contractor shall employ a competent and licensed New Jersey engineer or land surveyor as appropriate to perform all layout Work and to fix the level and location of excavations, footing base plates, columns, walls, floors and roof lines. The Contractor shall furnish to the College and the Architect certifications that each such level is as required by the Plans as the Work progresses.

The plumb lines of vertical surfaces shall be tested and certified by the Contractor's engineer or surveyor as the Work proceeds. The engineer or surveyor shall establish all points, lines, elevations, grades and bench marks for the proper control and execution of the Work. The engineer or surveyor shall establish a single permanent benchmark to be approved by the Architect, to which all three coordinates of dimensional control can and shall be based. The engineer or surveyor shall verify all topographical and utility survey data, and all points, lines, elevations, grades and benchmarks furnished by the College.

Should any discrepancies be found between information in the Plans and the actual site or field conditions, the Contractor shall notify the Architect and the College in writing, and shall not proceed with any Work affected until it receives written instructions from the College.

The Contractor is required to provide a final “as built” survey from a New Jersey licensed/certified surveyor of the Project site showing all structures, elevations, grades and required information on the Project site and submit to the College in CADD format.

5.11 Construction Access, Roads, Walks, And Parking.

The Contractor shall keep all roadways, drives, walkways and parking areas within or near the site free and clear of debris, gravel, mud or any other site materials, including, for example, the cleaning of muddy wheels and undercarriages on vehicles before they exit the site. The Contractor shall be responsible for any citations, fines, or penalties imposed on it or the College for failing to comply with applicable local rules or laws regarding its use of roads and the like.

The Contractor shall obtain permission in writing from the College before using for construction purposes any existing driveways, parking areas, walkways or areas not specifically designated for such use in the Contract Documents. The Contractor shall maintain such driveways and areas in good and clean condition during construction and not damage them. At Final Completion, the Contractor shall leave them in the same condition as they were at the start of the Work. Conditions of such facilities before use shall be photographed and otherwise documented by the Contractor. The Contractor shall not commence construction of permanent driveways, parking areas or walks on the Project site without the written approval of the College.

Any existing walkways, driveways, aprons, or curbs damaged by the Work of the Contract Documents shall be replaced in kind, at the Contractor’s expense, immediately upon Project completion, or as required to maintain campus safety and campus aesthetics.

5.12 Construction Site Condition, Storage, Dust Control.

The Contractor shall provide reasonable, safe and orderly storage for its equipment, tools and materials, and shall not unreasonably encumber the site. The Contractor shall keep the site and the Project free from the accumulation of refuse, debris and scrap materials caused by its operations so that the site has a neat, orderly and workman-like appearance. Loading, cartage, hauling and dumping will be at the Contractor’s expense. The Contractor shall provide, at its expense, temporary dust-proof partitions around areas of work in existing buildings, and where reasonably required, in new building areas.

5.13 Photographs.

The Contractor shall provide, at its expense, monthly progress photographs of the Project. The photographs shall be 8 inches by 10 inches and shall be submitted to the College in duplicate monthly. Unless otherwise specified in the supplemental general requirements, four photographs

shall be submitted each month which provide views of the Project taken from the same four points each, which points shall be selected by the Architect.

5.14 Project Sign.

The Contractor shall, at its expense, provide, erect and maintain two Project signs at the site, which shall be described in the Contract Documents. The College will specify the location of the signs. The signs shall be painted by a professional sign painter or prepared by a professional graphic artist. No other signage will be permitted at the site. The signs shall include the name and cell phone number of a Contractor-designated project lead that is available for 24-hour contact in case of emergency. The Contractor shall remove the signs when the Project is finally accepted unless the College requests that they be removed earlier.

5.15 Soil Conservation.

The Contractor shall employ reasonable measures to conserve the soil at the site, and determine and comply with all soil conservation measures required by the Mercer County Soil Conservation District.

The Contractor shall coordinate and schedule all soil conservation inspections, shall provide the College with written notice of all such inspections so that the College may attend the inspections if it chooses in its sole discretion to do so, and shall provide the College with all site inspection notes, approvals or notices.

5.16 Temporary Facilities, Services, Electric, Heat And Enclosures.

The Contractor shall provide storage areas, temporary drives and sidewalks, employee parking areas, staging areas, excavation borrow/spoil areas, commercial canteen areas, field offices including a meeting room, telephones, toilet facilities, and other temporary facilities that are necessary to perform the Work or that may be required by the Project Specifications. The Contractor shall locate these facilities on the Project site, and the location shall be subject to the approval of the College.

The Contractor shall provide adequate and clean temporary toilet facilities on the Project site in locations to be approved by the College, and they shall be serviced at least twice a week by a firm qualified and experienced in such functions. The Contractor shall provide such temporary electricity, water, and other utilities that are necessary to perform the Work, or that may be required by the Project Specifications. The Contractor shall also supply such temporary enclosures and heat that are necessary to perform the Work or that may be required by the Project Specifications. The Contractor and the Subcontractors will not enter or use any College facilities not required by the Work of the Contract.

Temporary electric and heat shall be furnished by the Contractor for the benefit of other contractors working on the Project if specified in the Project Specifications.

The Contractor shall not anticipate using the permanent heating or air conditioning system in a building for temporary heat or air conditioning prior to the acceptance of the Project as Substantially Complete unless specified otherwise.

Any natural gas, combustible material, or hazardous material containers utilized by the Contractor must be stored in a safe, ventilated location approved by the College. The Contractor must also submit for approval a reasonable safety plan for the operation of temporary heat equipment. The Contractor shall be solely responsible for any natural gas, combustible material or hazardous materials containers utilized by the Contractor or any of its Subcontractors and shall indemnify, defend and hold harmless the College from any fines, costs, expenses, liabilities, damages, etc. resulting from the Contractor's or any of its Subcontractors' use of such materials.

5.17 Substitutions.

To the extent that the Contractor includes in its bid substitute materials or equipment or construction methods in lieu of those specified in the Contract Documents, it does so at its own risk. Any substitution must be equal in type, function and quality to the item required in the Contract. The Contractor must submit all information required within 20 days of the Contract award to determine if the proposed substitute is equal to the requirements of the Contract Documents, and any substitution must be approved in writing by the Architect and the College.

No substitution shall result in any increase in the Contract Price or Contract Times. The Contractor in its application for the substitution must certify in writing that the substitution is equal to what is specified in the Contract Documents in all material respects and will not increase the Contract Times or Contract Price of the Work. The College shall have sole discretion to determine whether a proposed substitution is equal to what is specified in the Contract Documents.

Should the substitution be rejected, the Contractor will then be required to provide the specified product, material or method at no additional cost to the College and no change in the Project Schedule.

5.18 License Fees.

The Contractor shall be responsible for obtaining the right to use any equipment, design, device or material required to perform the Contract, and shall include in its Contract Price any license fee or royalty required.

ARTICLE 6 **SUBCONTRACTORS**

6.1 The Contractor's Responsibility For Subcontracted Work.

The Contractor shall be fully responsible to the College for the proper performance of the Contract irrespective of whether the Work is performed by the Contractor's own forces or by Subcontractors employed by the Contractor. The Contractor shall be responsible for the acts and

omissions of its Subcontractors and suppliers on the Project and shall take appropriate measures if they are not properly supervising or performing their Work.

6.2 Subcontractor Identification And Approval.

The Contractor shall have included with its bid for the Contract, the names, addresses and license numbers of all Subcontractors that it proposes to utilize on the Project for plumbing and gas fitting work, HVAC work, electrical work, structural steel and ornamental iron work. No Subcontractor may perform Work on the Project until it has been approved in writing by the College.

Within 20 days after issuance of the Notice to Proceed, the Contractor shall furnish to the Architect and the College in writing for review by the Architect and the College a list of the names of all Subcontractors, sub-subcontractors, fabricators, manufacturers, sources of supply, articles, devices, fixtures, pieces of equipment, materials and processes proposed for each item of Work using AIA Document G705-2001, List of Subcontractors. The Architect and the College will notify the Contractor in writing if either the College or the Architect, after due investigation, has reasonable objection to any names on such list.

In submitting the names of Subcontractors, the Contractor shall (1) list the name and address of the Subcontractor, (2) provide the name and address of all sub-subcontractors for each significant subdivision of the trade or work, and (3) reference in the form of a list at least 3 jobs similar in size and quality to the Project performed by the subcontractor in the last 5 years, with name and location of work, dollar value and names of the College and the Architect.

In submitting sources of supply, articles, devices, fixtures, piece of equipment and materials, including those under subcontracts and sub-subcontracts, the Contractor shall list (1) the name and address of the source of supply, and (2) the name of the manufacturer of the items.

If the College disapproves of a proposed Subcontractor, it will provide the reason for its decision in writing. The College will not be liable for any extra cost or delays caused by the reasonable disapproval of proposed Subcontractors. The approval of Subcontractors by the College shall not relieve the Contractor of the responsibility for complying with all of the provisions of the Contract Documents including those performed by the Subcontractors. Subcontractors approved by the College may not be changed without prior notice to and written approval by the College.

Payment to the Contractor shall not be made until the list of Subcontractors (as required above) has been provided to the Architect and College.

6.3 Subcontractor Qualifications.

The College may disapprove of a proposed Subcontractor if (i) it has a reasonable objection to the Subcontractor, (ii) there is evidence of poor performance on other Projects or financial problems, (iii) the Subcontractor has been suspended or debarred by any public agency within the State of New Jersey, (iv) the Subcontractor is not properly licensed and registered to do business in New Jersey or with the New Jersey Department of Labor regarding prevailing

wages, or (v) the Subcontractor has been charged with or convicted of violating any laws, including but not limited to, the New Jersey Prevailing Wage Act, criminal laws, public procurement laws, anti-trust laws, election laws, laws against employment discrimination, environmental laws, tax laws, professional licensing laws, or laws regarding attempts to improperly influence the College or other public officials.

Subcontractors shall utilize qualified, competent craftsmen on the Project.

6.4 Subcontractor Compliance With Contract/Subcontractor Supervisors.

The Contractor shall require its Subcontractors on the Project to comply with all pertinent terms of the Contract Documents, and shall include all appropriate terms and provisions in written subcontracts on the Project to achieve proper Contract performance. Each Subcontractor shall have competent superintendents and foremen supervising their work, and the Contractor shall take appropriate measures if they fail to do so.

6.5 No Contractual Relationship Between The College And Subcontractors.

The Contractor shall enter into written subcontracts with each and every Subcontractor and supplier solely in its own name. No approval by the College of any Subcontractor or supplier and nothing in the Contract Documents shall create any contractual relationship or duties between the Contractor's Subcontractors and the College. Nothing in the Contract Documents shall cause any of the Contractor's Subcontractors or suppliers to be deemed a third- party beneficiary of the Contract between the College and the Contractor, and nothing herein shall give any of the Contractor's Subcontractors or suppliers any rights or claims directly against the College.

6.6 Contingent Assignment of Subcontracts.

Each subcontract agreement for a portion of the Work and any purchase order for materials or equipment may, in the College's sole discretion, be assigned by the Contractor to the College, provided that

- (a) assignment is effective only after termination of the Contract by the College for cause or for convenience and only for those subcontract agreements that the College accepts by notifying the Subcontractor and the Contractor in writing and only on such terms and conditions acceptable to the College;
- (b) assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract;
- (c) if the College elects to take an assignment of any subcontract or purchase order, the Contractor shall execute all papers necessary to effectuate the assignment; and
- (d) the assignment shall not relieve the Contractor of its existing obligations to any Subcontractor or Supplier, nor shall it cause the College to assume

any of the Contractor's obligations to any Subcontractor or Supplier that arose prior to the termination.

When the College accepts the assignment of a subcontract agreement or purchase order, the College assumes the Contractor's rights and obligations under the subcontract going forward. Upon such assignment to the College, the College may further assign the subcontract to a successor contractor or other entity.

ARTICLE 7

TIME, LIQUIDATED DAMAGES, DELAY CLAIMS AGAINST THE COLLEGE.

7.1 Contract Times.

The Contractor shall begin the Work within 10 days after the issuance of a Notice to Proceed by the College, and shall perform the Work in the Contract Documents by the dates specified in the Notice to Proceed, including Construction Start, Milestone, Substantial Completion and Final Completion Dates (collectively, "Contract Times"). As specified in the Contract for Construction, if the Work is to be performed in phases, the College may issue separate Notices to Proceed for each phase, which shall specify the Construction Start, Milestone, Substantial Completion and Final Completion Dates for that phase. The College may, in its sole discretion and at no cost to the College, choose to delay the issuance of a Notice to Proceed and the Construction Start Date for any phase until after the Contractor has achieved Substantial or Final Completion of any other phase.

7.2 Liquidated Damages For Delay.

If the Contractor fails to Substantially Complete any phase of the Work or the entire Work by the Substantial Completion Date(s) set forth in the applicable Notice to Proceed (as extended by Change Order, if applicable), and the delay is not excused by the College, then the Contractor shall pay the College the amounts specified in the Contract for Construction as liquidated damages for delay for each calendar day that the phase of the Work or the entire Work is not Substantially Completed beyond the applicable Substantial Completion Date

7.3 Delay Claims By The Contractor Against The College -- Limitations.

The Contractor may not assert claims against the College for extra compensation by reason of any delays in its Work resulting from acts or omissions of any third parties irrespective of extensions granted under the Contract, including but not limited to delays caused by third parties such as the Architect, other contractors, utilities and governmental authorities.

The College shall only be required to pay additional compensation for delays caused by the College itself and

shall not be liable for any period of delay when there is a concurrent delay for which the College is not responsible.

When the Contractor is entitled to extra compensation for delay under the Contract for Construction and these General Conditions, it can only assert claims for extra costs at the job site, and may not assert claims for extra costs for home office expenses, home office overhead, lost profit or revenue, or consequential losses as that term is defined by New Jersey law. Any additional compensation under this Article shall also be subject to the provisions in the Contract for Construction and these General Conditions regarding claims, and the provisions in the Contract for Construction and these General Conditions regarding the maintenance and availability of cost records.

ARTICLE 8

PROJECT SCHEDULE

8.1 General Project Schedule Requirements.

The Contractor shall schedule the construction Work and determine the most feasible means and order for the Work to complete the Project within the times required by the Contract. The Contractor shall prepare a Project Schedule and monthly schedule updates, which must be approved in writing by the College and the Architect. The Contractor shall perform the Contract and the Work in accordance with the Project Schedule. The Project Schedule should include a schedule of submittals for approval as required herein. The Project Schedule must be submitted before any Work (other than mobilization to site and general layout and site preparatory work) on the Project can begin under the Notice to Proceed. When the Contractor's Project Schedule is approved in writing by the College, it shall become an additional Contract Document and the Contractor shall be required by the Contract to comply with it. The Project Schedule and any updates to it shall be used in determining the amount of the monthly progress payments to the Contractor. The College may also use the Project Schedule and updates to determine if the Contractor is adequately planning and performing the Work in accordance with the Contract Documents.

8.2 Form And Content Of Project Schedule.

The Contractor shall prepare the Project Schedule using Critical Path Method (CPM) scheduling techniques. The Contractor shall utilize the latest revision of Primavera P3 or Microsoft Scheduling software. The Contractor shall prepare a detailed schedule which shows how it will plan, organize, execute and complete the Work. The Project Schedule shall be in the form of an activity oriented network diagram (CPM). The principles and definitions used in this Article shall be as set forth in the Associated General Contractors of America (AGC) publication "Construction Planning and Scheduling", copyright 1994.

The detailed network diagram shall provide sufficient detail and clarity of form and technique so that the Contractor can plan, schedule and control the Work properly, and the College and the Architect can readily monitor and follow the progress of all portions of the

Work. The network diagram shall comply with the limitations imposed by the scope of the Work and contractually specified Milestone, Substantial Completion, and Final Completion Dates. The Project Schedule shall include the arrow or network diagram and the computer produced schedule with dates. The Project Schedule shall include and reflect the following factors:

- (a) Project phasing, contract Milestone, Substantial and Final Completion Dates.
- (b) The structural breakdown of the Project.
- (c) The types of Work to be performed and the labor trades involved.
- (d) Reasonable logic and activity durations.
- (e) Reasonable coordination of all activities.
- (f) Purchase, manufacture and delivery activities for all major materials and equipment.
- (g) Deliveries of equipment furnished by the College.
- (h) Allowances for work by separate contractors identified in writing by the College at the time of Contract award.
- (i) Submittals and approvals of shop drawings, material samples, and other required submittals.
- (j) Subcontract Work.
- (k) Crew flows and sizes (manpower).
- (l) Assignment of responsibility for performing all activities.
- (m) Access and availability to Work areas.
- (n) Identification of interfaces and dependencies with preceding, concurrent and follow-on contractors, and sequences and interdependence of activities.
- (o) Testing and inspections.
- (p) Phased or total inspection, acceptance, and takeover by the College.
- (q) Utilization of the Project Schedule to determine amounts of monthly progress payments.
- (r) Activities required of the College and the Architect such as approvals, including reasonable durations for the activities.

Activities should be set forth in working days and have a maximum duration of 60 days, except for non-construction activities such as the procurement and delivery of materials and equipment. All durations shall be the result of definitive manpower and resource planning by the Contractor. The level of detail in the Project Schedule shall be subject to the approval of the College. The Project Schedule shall include a reasonable approach to achieve Milestone, Substantial Completion and Final Completion Dates in the Contract. Any failure of the Contractor to include any element of the Work in the Project Schedule shall not excuse the Contractor from completing that Work and all of the Work needed to complete the Project by the Milestone, Substantial Completion and Final Completion Dates in the Contract.

The network diagram is to be prepared by a computer plotter. The logic diagram will be pure logic and shall not be drawn to time scale. The logic diagram shall be drawn on 30" x 42" size sheets and prepared on a tracing/mylar or similar material suitable for reproducing high quality prints.

8.3 Computerization Of Project Schedule.

The mathematical analysis of the detailed network diagram shall be made by computer, and the tabulation for each activity shall include the following:

- (a) Activity numbers.
- (b) Activity descriptions.
- (c) Durations in work days for each activity.
- (d) Earliest start date (by calendar date).
- (e) Earliest finish date (by calendar date).
- (f) Latest start date (by calendar date).
- (g) Latest finish date (by calendar date).
- (h) Slack or total float in work days.

The following computer documents shall be prepared as part of the initial Project Schedule submission and each update:

- (a) Activity file sort, including sorts listing activities required of the College and the Architect, such as approvals.
- (b) Eight week "lookahead" detailed bar chart.
- (c) Eight week summary bar chart.
- (d) Additional computer sorts requested by the College.
- (e) High density CDs or thumb drives of all computer files.

8.4 Weather Inclusion In Project Schedule.

Seasonal weather conditions shall be included in the Project Schedule, including average precipitation, temperature and other weather conditions typical in the geographic area over a 5 year period by month.

8.5 Project Schedule Updates.

The Contractor shall prepare Project Schedule updates monthly until the Project is completed. The first update shall be issued 30 calendar days after the Construction Start Date specified in the Notice to Proceed. Updates shall include the following information:

- (a) Actual start and completion dates for activities.
- (b) Activity percent completion.
- (c) Remaining durations for activities in progress.

Each Project Schedule update shall also include a narrative report that includes the following information:

- (a) Summary of Work completed during update period.
- (b) Comparison of actual progress and status to activities and dates in original Project Schedule.

- (c) Analysis of critical path including effect of activity progress on the Project critical path.
- (d) Analysis of secondary critical paths, meaning float within 10 days of the Project critical path.
- (e) Analysis of time lost or gained during the update period.
- (f) Identification of problem areas.
- (g) Identification of change orders and delays impacting or delaying the Project under the Project Schedule.
- (h) Solutions or proposed solutions to current problems and delays.
- (i) Extensions requested by the Contractor, including activities affected and the amounts, and the reasons for the requests.
- (j) Extensions granted by the College for delays and changes, including the activities affected and the amounts, and any effect on the critical path and Contract Milestone, Substantial Completion and Final Completion Dates.
- (k) Delays in activities required of the College and the Architect, and activities that they are required to complete in the update period following the issuance of the update.

All Project Schedule updates must be submitted to the College and the Architect for written approval. Project Schedule updates, including the reports which are approved by the College, shall be deemed to be official records of the progress and status of the Project under the Project Schedule and the Contract, and may be utilized by the College in determining if the Contractor is adequately planning and performing the Work under the Contract Documents.

8.6 Meetings/Eight Week Bar Charts.

The Contractor's Project Manager and Scheduler shall arrange for and attend monthly progress and scheduling meetings with the College and the Architect. Monthly progress meetings shall be scheduled 3 to 7 days after monthly Project Schedule updates and reports are issued and provided to the College and the Architect. The purpose of these meetings will be to review past progress, current status, problem areas, delays, measures to reduce delays, future progress, and the Contractor's most recent Project Schedule update and report. At the monthly progress meetings, the Contractor shall provide a look ahead summary and detailed bar charts showing the Work and activities to be performed and/or completed during the 8-week period following the Project Schedule update.

8.7 Project Schedule Documentation For Contract Payments.

The Contractor will not be entitled to payments under the Contract until a Project Schedule has been submitted to and approved in writing by the College. No payment will be made under the Contract if, when the payment is due, a Project Schedule update and narrative report is due under this Article but has not been submitted to and approved in writing by the College. The original Project Schedule shall include a breakdown allocating the total Contract Price among the network activities in the Project Schedule, which must be approved by the College.

8.8 Progress and Recovery Project Schedules.

The Contractor shall perform its Work in accordance with the Project Schedule. If the Contractor's Work falls behind the requirements of the Project Schedule, it shall, at its own cost, institute measures to improve its progress and bring its Work in compliance with the Project Schedule, including but not limited to increasing manpower, increasing work hours per shift, increasing shifts, increasing working days per week, and rescheduling Work activities to perform them concurrently where feasible.

If monthly Project Schedule updates show that the Contractor's progress has fallen behind the Project Schedule so as to jeopardize the achievement of Milestone, Substantial Completion or Final Completion Dates by more than 10 work days, the Contractor shall, if requested by the College in writing, prepare a recovery schedule with acceleration measures to regain the lost time, and shall proceed in accordance with the recovery schedule in addition to the Project Schedule at its own cost.

8.9 The Contractor's Failure to Provide Project Schedule Updates.

If the Contractor fails to provide monthly Project Schedule updates and reports when required, the College can elect in its sole discretion to employ any of the following remedies: (i) not make progress payments; (ii) on 10 days written notice to the Contractor, retain its own consultant to provide Project Schedule updates and reports and deduct the cost from the Contract Price; (iii) terminate the Contract for default in accordance with the termination provisions in the Contract for Construction and these General Conditions and/or (iv) make a claim on the performance bond.

8.10 Scheduler Qualifications.

The Contractor must utilize a Project Scheduler that satisfies the qualification requirements for the Project. If at any time during the Project it appears that the Contractor's Project Scheduler is not competent to provide the scheduling services required in this Article, the Contractor shall, within 10 days after a written notice and demand from the College, retain a replacement scheduler that is competent to provide the services required. The College may also utilize any of the remedies provided in the Contract for Construction or these General Conditions for the Contractor's failure to provide proper Project Schedule updates and reports.

ARTICLE 9

EXTENSIONS, COMPENSATION FOR CERTAIN EXTENSIONS.

9.1 Delays Warranting Extensions Of Contract Times.

If the Contractor is unavoidably prevented from completing any part of the Work within the Milestone, Substantial Completion or Final Completion Dates by causes beyond the control and without the fault of the Contractor or its Subcontractors, those Contract Times will be extended by amounts equal to the time lost due to such delays, provided the Contractor requests extensions in accordance with this Article. Delays warranting extensions of the Contract Times

include unforeseeable and unavoidable delays caused by the College, the Architect, other contractors employed by the College, utility owners or other third parties, acts of God, acts of governmental authorities, wars, abnormally severe weather conditions of unusual duration (specifically excluding weather conditions of the type and duration that have been encountered in the area in which the Project is located) that prevent timely delivery of materials or equipment necessary to the completion of portions of the Work or hamper access to the Work by workmen or Subcontractors, fires, floods, earthquakes, epidemics, plagues, and other unavoidable casualties.

Except for the conditions described in Article 7.3, apart from an extension of time, no payment or allowance of any kind shall be made to the Contractor as compensation for damages on account of hindrance or delay from any cause in the progress of the Work, whether such delay be avoidable or unavoidable. The Contractor agrees that it will make no claim for compensation, damages for any such delays, and will accept in full satisfaction for such delays said extension of time.

9.2 Weather Delays.

The Project Schedule shall take into account normally anticipatable adverse weather plus an additional five (5) days of severe and unusual weather conditions that will materially interfere with the timely prosecution of the Work. No time extensions will be granted for time lost due to weather conditions that do not meet the criteria set forth in Article 9.1, and then only to the extent more than five (5) days of delay result from such severe and unusual weather conditions. Owner shall not be required to keep a record of days of precipitation or low temperatures and the burden of proof with respect to weather delays shall be upon Contractor. No time extensions will be considered for any weather conditions that do not affect Work on the critical path or Contract Times.

9.3 Float Time Use.

Float time in the Project Schedule is not for the exclusive use of either the Contractor or the College. Float time is available for use by both parties to facilitate the effective use of available resources and to minimize the impact of problems and delays that may arise during construction. No time extension will be granted as a result of any problem, change order or delay which only results in the loss of available positive float on the Project Schedule. Float time shown on the Project Schedule shall not be used by the Contractor in a manner that is detrimental to the interests of the College or the Project.

9.4 Calculation Of Extensions.

Extensions will be calculated based on the effect of delays on the Project Schedule and the activities in the Project Schedule. If the Contractor is entitled to an extension for a delay based on the nature of the delay under this Article, the activities in the Project Schedule affected by the delay will be extended by the amount they are affected. If extensions of activities in the Project Schedule affect the critical path and delay the Contract Milestone, Substantial Completion or Final Completion Dates, they too will be extended to the extent affected. The critical path and Contract Times will only be extended to the extent that they are actually

affected under the Project Schedule by a delay for which the Contractor is entitled to an extension.

If, for any scheduled activity or period, there are concurrent delays that include delays for which the Contractor is entitled to an extension and delays for which the Contractor is not entitled to an extension, the Contractor will be given an extension for the delays for which it is entitled to extension so that it will not be liable to pay liquidated damages for delay, unless the College eliminates or reduces that delay. A concurrent delay will not justify an extension to the Contractor if it has minimal effect on the completion of the Project, and/or if it would likely have been avoided if it had become apparent that it was having an effect on the progress of the Project and the Final Completion Date.

9.5 Elimination of Delays and Extensions (Acceleration).

If the effect of a delay for which the Contractor is entitled to an extension can be reduced or eliminated by changes in the Project Schedule or other measures which have no material adverse impact on the Contractor in terms of cost or otherwise, the Contractor shall employ those measures so that no extension is required or so that a shorter extension is required. If the Contractor is entitled to extensions for delays, and if the College (in its sole discretion) notifies the Contractor in writing that it prefers to eliminate the lost time to avoid or reduce the extension required, by changes or additional efforts such as acceleration efforts, the Contractor shall perform those measures as a change to the Contract to be compensated under the change order provisions in the Contract for Construction and these General Conditions.

9.6 Requests For Extensions Required.

The Contractor must provide the College with a written notice of delay and request for an extension within 24 hours of the beginning of a delay. The written notice of delay and request for extension must include the nature and cause of the delay, the known extent of the delay, the Work activities on the Project Schedule affected by the delay, and the extent of the effect to each, and suggestions or proposals to reduce or eliminate the delay. This limited time frame is to provide the College the opportunity to immediately address the issue and limit the amount of time in the potential delay and its potential impact on the Project Schedule.

9.7 SECTION WAS DELETED

ARTICLE 10
PAYMENTS TO THE CONTRACTOR.

10.1 Contract Price.

The College will pay the Contractor as full compensation for performing the Work the Contract Price as adjusted by approved change orders that increase or decrease the Contract Price. The College will do so in accordance with this Article, any supplemental General Conditions regarding payment, and the payment terms in the Contract for Construction. Payment provisions in the supplemental General Conditions that add to or modify this Article shall take precedence over this Article. Payment provisions in the Contract for Construction that add to or modify payment terms shall take precedence over the supplemental General Conditions and this Article.

10.2 Monthly Progress Payments.

The College will pay the Contractor monthly progress payments as the Work proceeds and will pay for the Work completed, less retainage. The Contractor shall submit monthly invoices using the College's invoice form for the Work completed in each calendar month, and the monthly invoice shall be submitted in accordance with the Contract. The Contractor shall be entitled to monthly progress payments based on the percentage of the Work completed (less earlier payments), and that amount shall be based on the Unit Schedule Breakdown and the update of the Project Schedule for the billing period showing schedule activities completed and progress on incomplete activities, in conjunction with the values assigned to those activities. If there is a discrepancy between the amount due based on the Unit Schedule Breakdown and the amount due based on the Project Schedule update, the Contractor shall only be entitled to the lesser amount unless the College's Representative, in his/her sole discretion, decides otherwise. Payments made by the College shall be used by the Contractor solely for purposes of this Project and for paying Subcontractors, suppliers, and for labor and materials, and shall not be used to pay debts owed by the Contractor outside of the Project.

10.3 Unit Schedule Breakdown/CPM Activity Price Breakdown.

Before the Contract for Construction is signed, the Contractor shall submit to the College and the Architect a Unit Schedule Breakdown (schedule of values) utilizing the College's form (AIA Documents G702/G703) which reasonably allocates the Contract Price among the principal categories of Work and materials in the Contract. The Unit Schedule Breakdown must be signed by the Contractor and is subject to written approval by the Architect and the College for use in calculating monthly progress payments under the Contract. The Contractor shall not "front end load" the Unit Schedule Breakdown. The Unit Schedule Breakdown may include line items for mobilization, bonds and insurance.

The Contractor's proposed Project Schedule shall reasonably allocate the Contract Price among the activities in the schedule so that monthly Project Schedule updates can be utilized in connection with the Unit Schedule Breakdown in determining the amount of monthly progress payments. The Contractor's Unit Schedule Breakdown and Project Schedule activity price breakdown must be approved in writing by the Architect and the College before any payments are made under the Contract.

10.4 Invoices For Monthly Progress Payments: Form and Content.

The Contractor must utilize the College's invoice form and the invoice forms (AIA Documents G702/G703 and waiver attachments) must be completed before they are submitted for payment. Each invoice must be signed by the Contractor, and shall certify that the Work and materials represented as having been provided have been provided, and that all Subcontractors and suppliers on the Project have been paid all amounts legitimately due for Work and materials billed to the College in earlier invoices that were paid by the College. The Contractor's submission of an invoice constitutes an affirmative representation and warranty by the Contractor that it performed the Work in compliance with the Contract Documents and applicable laws, codes and regulations.

Invoices for monthly Project payments must include the status of the Work in the Unit Schedule Breakdown and the Project Schedule update for the billing period that shows the activities completed or started and the value of them based on the Project Schedule. Invoices must also include certified payrolls for the Contractor and all Subcontractors for the billing period, affirmative action monthly manning reports, a certification of Subcontractor/supplier payments, the College's acknowledgment of progress payment and release of liens and claims form duly executed by the Contractor, the College's acknowledgment of progress payment and release of liens and claims form duly executed by each Subcontractor and supplier who has furnished labor or materials that are the subject of the current invoice, a list of all materials stored to date including descriptions, values, quantities and location, and any other documents required in the Contract Documents.

The Contractor will be entitled to have an invoice paid if the Architect and the College approve in writing the invoice including the percentage of Work completed, and if the quality of the Work and materials conform to the Contract Documents. The approval of invoices shall not waive claims for defects or deficiencies in the Work or materials provided, or the right to subsequently inspect the Project as a complete and functioning whole.

10.5 Payment For Materials And Equipment Procured But Not Installed.

The Contractor may seek payment in monthly invoices for materials and equipment delivered to the Project site but not yet incorporated into the Work. The Contractor shall include with its monthly invoices a list of the stored equipment, the amount and type of stored materials, and the place where they are stored. Each invoice that seeks payment for materials and equipment delivered to the Project site but not installed or incorporated into the Work shall include a signed bill of sale to the College and an invoice from the supplier. All risk of loss or damage for materials and equipment delivered to the Project site shall remain with the Contractor.

The College will only rarely pay for material or equipment stored offsite, and only when it determines, in its sole discretion, that there is good cause. The College will consider no request to pay for materials or equipment stored off site unless the Contractor includes a written request for such payment with its bid for the Project. If the College does agree to pay for material or equipment stored offsite during the performance of the Contract, it will do so when the Contract for Construction is signed.

If the College does agree to pay for materials and equipment stored offsite, such payments shall be subject to any conditions in the signed Contract, and in all cases, a bill of sale to the College, a paid invoice, insurance and proof the storage facility is bonded will have to be provided to the College when each payment is sought. The location will have to be specified in writing and the material or equipment will have to be inspected by the College. The Contractor and its performance bond surety must agree in writing that they retain all risk of loss or damage, and each payment application must contain a consent to payments for materials stored offsite signed by the Contractor's bonding company.

Payments on account of materials or equipment not incorporated into the Work but delivered and suitably stored at the site, or at some other location agreed upon in writing, may be made by the College subject to the following conditions:

- (a) Such materials or equipment shall have been fabricated or assembled specifically for the Project and delivered to storage no earlier than needed for the orderly progress of the Work as demonstrated by the Project Schedule.
- (b) Title to such materials or equipment shall pass to the College pursuant to the Contractor's bill of sale, which shall contain guarantee of replacement thereof in the event of damage thereto or disappearance thereof due to any cause. The Contractor shall also affirm that it will pay for such materials or equipment immediately upon receipt of payment therefore from the College.

In the case of offsite storage, the Contractor shall also provide Consent of Surety to such payment and insurance of such materials or equipment against the perils set forth in these General Conditions both while storage and during transportation to the site. Raw materials or other materials or equipment readily duplicated or usable on other projects will be paid for only

after the materials are incorporated into the construction.

10.6 Retainage.

The College will retain 2% of the amount due on each partial payment pending Final Completion of the Contract.

Retainage amounts being withheld by the College shall be released and paid in full to the Contractor within 45 days of the Final Completion Date agreed upon by the Contractor and the College, without further withholding of any amounts for any purpose whatsoever, provided that the Work has been Finally Completed as indicated.

10.7 Payment For Change Order Work.

The Contractor shall invoice for change order work in the monthly progress payment invoices as the change order work is performed, but may only do so after a written change order has been signed by the appropriate College personnel and a TCNJ Purchase Order is issued by the College.

10.8 Final Payment.

Upon Final Completion of all the Work including all change orders, upon final acceptance of the Work by the Architect and the College, and upon the issuance of the Certificate of Final Completion, the Contractor will be paid the fully adjusted Contract Price including any retainage. The Contractor shall submit an invoice for the final payment. The final invoice must be accompanied by the College's acceptance of final payment and release of liens and claims form duly executed by the Contractor, the College's acceptance of final payment and release of liens and claims form duly executed by each Subcontractor and supplier who has furnished labor or materials that are the subject of the final invoice, all warranties, guarantees, manufacturer literature, approved as-built drawings, shop drawings required, and any other documents that the Contractor is required by the Contract Documents to provide to the College at the time of Final Completion. The final invoice must also include a written signed consent to the final payment signed by the Contractor's bonding company.

10.9 Payment Terms.

All invoices and payments shall be subject to the terms of the Contract for Construction and these General Conditions, including the provisions regarding payments, and to the right of the College to withhold payments or to make deductions from payments for damages, defective work, liquidated damages, third-party claims, failure to complete Work, failure to comply with requirements of the Contract Documents, failure to comply with Prevailing Wage Act requirements set forth in the Contract for Construction and these General Conditions, failure to comply with Project Schedule obligations, or other causes authorized by the Contract Documents.

10.10 Payment Based On Partial Acceptance (Limitation).

The College will not accept portions of the Project as Substantially or Finally Complete unless specified elsewhere in the Contract Documents. If the Specifications authorize partial acceptances, they will also specify the terms and conditions of such acceptances.

10.11 Failure To Pay Amounts In Dispute Not To Affect Performance.

The failure of the College to pay any amount requested by the Contractor in an invoice based on a determination that the invoice is improper or some other dispute shall not entitle the Contractor to stop or slow down the performance of the Work.

10.12 Reasons For Withholding Payment.

In addition to the reasons set forth elsewhere in the Contract for Construction and these General Conditions, the Architect or the College may also withhold payments to the Contractor, or, because of subsequently discovered evidence, may nullify the whole or a part of a payments previously issued to the Contractor, to such extent as may be necessary in the Architect's or the College's opinion to protect the College from loss for which the Contractor is responsible because of

- (a) defective Work not remedied;
- (b) third party claims filed or reasonable evidence indicating probable filing of such claims unless security acceptable to the College is provided by the Contractor;
- (c) failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment;
- (d) reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Price;
- (e) damage to the College or a separate contractor;
- (f) failure to comply with requirements for monthly progress payments pursuant to Article 10.4; or
- (g) failure to carry out the Work in accordance with the Contract Documents.

When the above reasons for withholding payment are removed, payment will be made for amounts previously withheld.

If the College withholds or the Architect recommends that the College should withhold payment from the Contractor under subsection (c) above, the College may, after providing the Contractor with written notice and an opportunity to cure, issue joint checks to the Contractor and to any Subcontractor or material or equipment suppliers to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. However, by doing so, the College is not undertaking any payment obligation on the part of the

Contractor, nor does any Subcontractor have any claims against the College or any right to future joint check payments.

10.13 Set-Off For State Tax Indebtedness.

Pursuant to N.J.S.A. 54:49-19, and notwithstanding any other provision of law to the contrary, if the Contractor or any of its Subcontractors or suppliers are indebted to the State of New Jersey for any State tax, the College may withhold and/or set off any payments due to the Contractor as may be necessary to satisfy such indebtedness and/or pending resolution of the indebtedness.

10.14 Maintenance Of Cost And Accounting Records.

The Contractor shall maintain and retain weekly payroll, material, Subcontractor, supplier, overhead and other cost and accounting records for the Project, and for additional services or extras required by the College, including all costs that the Contractor is entitled to be paid under the Contract. The Contractor shall require its Subcontractors on the Project to do likewise. The Contractor shall also maintain all estimates and takeoffs used in preparing and calculating its bid price for the Contract and change orders. The Contractor shall also maintain all documentation related to products, transactions or services under the Contract. The records shall be maintained and shall be made available to the College or its representatives when requested. These records shall be maintained in accordance with generally accepted accounting principles and practices for a period of 5 years after final payment is received by the Contractor, or the duration of any dispute or lawsuit arising out of the Project, whichever is later, and shall be made available to the College or its representatives and the New Jersey Office of the State Comptroller when requested.

Any failure to maintain or produce the records required by this Article may limit the Contractor from being paid on any claims that are based on costs and expenses or losses incurred by the Contractor or its Subcontractors including extra costs that are or that should be reflected in the records required by this Article or good business practices. This record keeping requirement applies to records related to the basic Contract Price as well as extra compensation for change orders and claims of all kinds.

No claim by the Contractor against the College for payment, whether for Contract Work, extras, changes or claims that is based to any degree on costs that should be recorded in cost records required by this Article or good business practices may be asserted against the College to the extent the cost records do not exist or are not provided to the College upon demand.

The College reserves the right to audit the records of the Contractor and its Subcontractors at any time and for up to 3 years after the Final Completion of the Project. If an audit reveals overpayment by the College, the Contractor shall refund the cost of the audit and the overpayment to the College, or the College may deduct the cost of the audit and the overpayment from future payments under the Contract, or the College may assert claims against the Contractor and/or its surety for the cost of the audit and such overpayments.

10.15 Written Evidence of Payment to Subcontractors.

The College has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and material and equipment suppliers' amounts paid by the College to the Contractor for subcontracted Work. Such evidence shall include acknowledgment of progress payment and release of liens and claims forms duly executed by each Subcontractor and supplier for payments previously made to the Contractor. If the Contractor fails to furnish the College with the written evidence that it has properly paid Subcontractors and material and equipment suppliers, the College shall have the right to contact Subcontractors to ascertain whether they have been properly paid. Neither the College nor Architect shall have an obligation to pay or to see to the payment of money to a Subcontractor, except as may otherwise be required by law. The College may, in its sole discretion, issue checks made payable jointly to the Contractor and a Subcontractor; however, by doing so, the College is not undertaking any obligation on the part of the Contractor, nor does the Subcontractor have any claims against the College nor any right to future joint check payments.

ARTICLE 11 **CHANGES.**

11.1 Changes Authorized.

The College may at any time authorize and direct changes in the Work or accelerations of the Work that change the scope of the Work and that increase or decrease the Contract Price. All changes including changes in the Contract Price shall be governed by this Article. All changes must be in a written change order signed by the Vice President for Administration, the College's Representative, the Architect and the Contractor. A TCNJ Purchase Order will then be issued by the College and signed by the Contracting Officer, after which time, the Contractor can then bill for the completed change order Work. Any extensions in the Contract Times and increases in the Contract Price because of extensions resulting from changes shall be governed by Article 9 of these General Conditions regarding extensions, but the authorization for the extra compensation itself resulting from an extension must be contained in a change order that complies with this Article as well. The College may elect to have changed Work on the Project that is within the scope of the Contract Documents performed by another contractor. Changes in the Work shall not affect the surety bond protection or insurance coverage required by the Contract Documents.

11.2 Change Request Or Directive.

The College may request a change in the Work or materials to be provided under the Contract Documents by a written Contract Change Directive ("CCD") signed by the College's Representative. If the College is of the opinion that no change in the Contract Price or Contract Times is required because of the change request, it shall so state in the CCD. A CCD may include provisions regarding the scope of the changed Work or materials, and may also include conditions including time parameters. A CCD may provide that specified Work shall stop until further notice, but the Contractor shall not stop or delay any Work because of a CCD unless the CCD provides that Work should stop because of the change. A CCD may provide that the performance of changes shall not commence until a change order is issued and a subsequent

TCNJ Purchase Order is issued and signed by the Contracting Officer, or that changed Work should proceed before a change order and TCNJ Purchase Order are issued by the College to maintain the progress of the Project.

11.3 Change Orders Which Are Protested.

If the Contractor protests the terms of a change order, it shall notify the College of its protest in writing within 2 business days of the issuance of the Change Order. It shall describe the terms that it objects to and the reasons for its protest. It shall include supporting documentation if appropriate, including detailed justification for any Contractor requested additional compensation based upon unavoidable additional costs. The College may elect to direct the Contractor in writing to perform the change order requirements despite the protest. If it does so, the Contractor's right to pursue further relief based on the protest shall be preserved and the Contractor shall immediately proceed with the change Work

11.4 Changes Affecting Contract Times.

Changes and change orders shall not affect or extend any of the Contract Times unless the change order itself specifies that it changes Contract Times. If a change order issued by the College delays the completion of any activity in the Project Schedule, the time allowed for that activity shall be extended, and if a delay in that activity delays other activities, the critical path or the Completion Dates in the Contract, they too will be extended. The Contractor shall make reasonable efforts in scheduling changed Work so that it does not delay or extend activities in the Project Schedule critical path, including any Milestone Dates, the Substantial Completion Date and the Final Completion Date. The Contractor shall also make alternate proposals for change order Work that include acceleration for the changed Work where feasible to achieve this goal, and shall include the cost of such efforts in its change order requests and proposals.

Change orders must specify whether they result in any delay (or extension) to any critical path activities in the Project Schedule, including an identification of the activities and the amount of delay in each. If no delay or extension is set forth in a change order, it will be deemed an agreement by the College and the Contractor that no delay or extension results from the change order.

11.5 Contractor Initiated Change Order Requests.

If the Contractor contends that any directive or communication from the College or Architect, or any condition, event or circumstance entitles it to a change order changing the scope of the Work, terms of the Contract Documents, Contract Price or Contract Times, it shall submit a written change order request to the College's Representative within 5 days of the event upon which the request is based. The written request shall specify the terms of the change order requested, and include all documentation and information that the Contractor seeks to have considered in support of the request, or that is necessary to a proper consideration of the request.

11.6 Change Order Amounts.

All price changes or amounts in change orders shall be based on (i) lump sum, (ii) actual work time and materials plus mark-ups for overhead and profit, or (iii) unit prices times actual quantities that may or may not include separate mark-ups for overhead and profit. If a change order price is to be based on a lump sum price or a unit price, the College may request the submission of such documentation regarding market price or cost which it reasonably deems necessary to determine a lump sum or unit price. If a change order is based on actual work time and material costs, it will include a not-to-exceed price.

Applications for payment for change order Work shall be included in monthly progress payment invoices as the change order work is performed, but only after a TCNJ Purchase Order has been issued to the Contractor by the College. For change orders based on time and material costs or unit prices times actual quantities, the time spent, material provided, and quantities performed shall be recorded in daily time slips, material invoices, and quantity of work performed tickets that are signed by the College's Representative to certify that the Work and materials were provided, and the quantities. Labor costs and material costs for change orders shall be based on actual costs to the Contractor without any mark-ups except as provided in this Article.

Mark-ups may be added to time and material costs where a change order is authorized to be paid on a time and material basis, and also unit price change orders if the change order price term expressly authorizes mark-ups as a separate additional charge to be added to the unit price. When mark-ups for overhead and profit are authorized, the standard mark-up for overhead and profit shall be 15% of net costs properly invoiced in the change order. The schedule for mark ups is as follows:

- 15% of direct costs for overhead, profit, bond, and insurance for Work performed directly by the Contractor;
- 15% of direct costs for overhead, profit, bond, and insurance for Work performed directly by the Subcontractor and 5% of the direct and indirect costs of the Work performed by the Subcontractor for the Contractor; and
- 15% of direct costs for overhead, profit, bond, and insurance for Work performed directly by the Subcontractor's subcontractor and 5% of the direct and indirect costs of the Work performed by the Subcontractor's subcontractor for the Subcontractor and 5% of the direct and indirect costs of the Work performed by the Subcontractor for the Contractor.

There shall be no additional mark-ups for materials or supplies. Bond and insurance costs are included in the noted mark ups above. Refer to Division 1 Specifications also for further delineation of items included in mark-ups.

THE CONTRACTOR MUST USE THE COLLEGE'S CHANGE ORDER FORM INCLUDED IN THE PAYMENT PROCEDURE DOCUMENTS.

11.7 Right To Audit Extra Costs (Before And After Payment).

The College reserves the right to audit all change orders and additional costs claimed and/or paid under the Contract at any time. The obligation of the Contractor, Subcontractors and suppliers to establish, maintain and produce cost records and remedies for failing to do as specified elsewhere in these General Conditions and the Contract for Construction shall govern. If an audit reveals that actual costs invoiced to the College and/or paid by the College in change orders exceed the actual costs incurred, the Contractor shall refund the excess, or the College may deduct the excess from future payments under the Contract, or the College may assert claims against the Contractor and/or its surety for such overpayments.

11.8 Change Orders With Both Price Increases and Decreases.

If a change order reduces the scope of the Work or materials to be provided by the Contractor under the Contract, the change order shall provide for a reduction in the Contract Price in the amount of the actual reduction in cost. If a change order results in both added costs and reduced costs, they shall be combined for a net plus or minus Contract Price adjustment, and when mark-ups are applicable, they shall only be added to a net increase in the Contract Price which results from a combination of additions and deductions in the change order.

11.9 Waiver Of Rights In Connection With Change Orders Issued Without Protest.

The Contractor shall not be entitled to seek any additional compensation or any extension of the Contract Times beyond the amounts and any extensions included in a change order signed by the College or a written change order request submitted by the Contractor to the College for approval, the intent being that the Contractor must disclose all additional costs and delays claimed to result from a change so that the College can take measures in considering the change to effect cost savings and avoid delays. The failure to include extra costs or delays in a change order request will preclude the Contractor from later claiming such costs or delays in connection with the change in any form or fashion.

ARTICLE 12 **COMPLETION.**

12.1 Substantial Completion.

When the Contractor believes that the Project (or a specific phase of the Work, if the Work is to be performed in phases) is Substantially Complete, meaning all essential requirements of the Work have been sufficiently completed so that the Project (or a specific phase) can be occupied and used for its intended purpose (and as further defined in the College's Division 1 specifications for capital projects), it can make a written request to the Architect and the College to conduct an inspection and to issue a Certificate of Substantial Completion. The Contractor's request shall list all Work and requirements of the Contract Documents that remain to be completed or corrected and an estimate of the value of the incomplete items and the dates by which those items of the Work will be completed, but in no event shall it be more than thirty (30) days from Substantial Completion.

The Architect and the College will conduct an inspection, and if they determine the Contractor has Substantially Completed the Project (or a specific phase of the Work, if the Work is to be performed in phases), the College will issue a Certificate of Substantial Completion. If the Architect and the College determine that the Contractor has not achieved Substantial Completion, the College will notify the Contractor in writing and will list the Work and requirements of the Contract Documents that must be completed for Substantial Completion and provide a punch list. The Architect and the College will also assign a value to the incomplete items to be added to the 2% retainage held after the Certificate of Substantial Completion is issued. The College and the Architect will re-inspect when the Contractor notifies them in writing that those items have been completed.

Any failure of the College or Architect to include incomplete or deficient items in a Certificate of Substantial Completion or a notice regarding a Substantial Completion inspection shall not affect the Contractor's obligation to properly complete all requirements of the Contract.

The College will not issue a Certificate of Substantial Completion unless it can occupy and use the Project (or the phase of the Work) for its intended purpose, and the Contractor agrees that the College's use and occupancy of the Project (or the phase of the Work) shall not affect the Contractor's obligation to complete the Project and requirements of the Contract Documents. The Contractor also agrees that its completion of the Project will not unreasonably interfere with the College's occupancy and use of the Project (or the phase of the Work) and that the College's occupancy will not impede the Contractor's completion of the Work to Final Completion.

Unless otherwise specified in the supplemental General Conditions, a Certificate of Substantial Completion will not be issued unless an unqualified temporary or permanent certificate of occupancy is issued, and the College is able to use and occupy the Project (or the phase of the Work) without interruption.

The issuance of a Certificate of Substantial Completion shall not void or alter any of the other terms of the Contract Documents, including but not limited to terms relating to warranties, or relieve the Contractor of its obligation to complete the Work or remedy defective Work or materials, unless such terms are expressly modified by the Certificate of Substantial Completion.

Guarantee periods for equipment, workmanship and materials shall commence when the Certificate of Substantial Completion is issued or from the completion and acceptance of equipment, workmanship or materials, whichever is later, unless otherwise specified in the supplemental General Conditions or the Certificate of Substantial Completion.

The rights of the Contractor regarding payments upon the issuance of the Certificate of Substantial Completion shall be as provided in the payment provisions of the Contract for Construction and these General Conditions.

12.2 Final Completion.

The Contractor shall notify the Architect and the College in writing when it has completed the entire Project (or a specific phase of the Work, if the Work is to be performed in

phases) and has satisfied all of the requirements of the Contract Documents for Final Completion. The Architect and the College will then conduct an inspection, and if they determine that the Contractor has completed the entire Project (or a specific phase of the Work, if the Work is to be performed in phases) and has satisfied all of the requirements of the Contract Documents for Final Completion, the College will then issue a Certificate of Final Completion. If any items remain incomplete or unsatisfactory, the College will notify the Contractor in writing and list the incomplete or unsatisfactory items. The Contractor shall immediately complete and correct any unfinished items and notify the Architect and the College in writing and request a follow-up inspection for Final Completion.

The Certificate of Final Completion will not be issued until all documents required by the Contract Documents have been provided, including the College's acceptance of final payment and release of liens and claims forms duly executed by the Contractor and any Subcontractors and suppliers who have furnished labor or materials under the Contract, warranties, maintenance and operating instructions, certificates, insurance, shop drawings required, and as-built drawings approved by the Architect. Final Completion must include leaving the entire Project site and the Project (or the phase of the Work) clean, neat and orderly. All distortions, cracks, delaminating and deteriorations of finished surfaces must be remedied. All broken items shall be repaired. All paint spots, stains and plaster must be removed. All unused equipment and excess material shall be removed. The Project and the Project site (or the phase of the Work) shall be clean and finished.

If the Contractor unreasonably delays completing and correcting items needed for the issuance of the Certificate of Final Completion, the College may unilaterally issue a Certificate of Final Completion that lists incomplete and defective items, and that deducts any applicable liquidated damages and the cost of remedying incomplete and defective items from the final amount due to the Contractor under the Contract.

Final payment will not be made until the Certificate of Final Completion is issued, and the final payment shall be subject to the payment provisions in the Contract for Construction and these General Conditions.

ARTICLE 13

SUSPENSION AND TERMINATION OF CONTRACT.

13.1 Suspension By The College.

The College shall have the right to stop or suspend the Work in whole or in part at any time. The Work may only be stopped or suspended by a written directive of the College's Representative, except in an emergency. The College's Representative may stop or suspend the Work in whole or in part on an emergent basis, either verbally or in writing, but any such emergent suspension or stop Work order shall be confirmed by a written directive from the College's Representative within 48 hours. The College may stop or suspend the Work because of any conditions affecting health or safety on or off site, any dangerous condition, any environmental hazard, the convenience of the College, or the public interest. If a directive to

stop or suspend all or part of the Work includes directions to secure the site, the Contractor shall perform the Work required in the directive. The Contractor shall also maintain the safety and security of the Project during the suspension for the protection of the site, Work in place, materials and equipment on site, persons on or near the site, and the College's property.

If all or part of the Work is suspended in response to a problem or condition caused by the Contractor's performance of its Contract, or parties other than the College itself, or conditions over which the College has no control, the Contractor will not be entitled to any additional compensation for the suspension. If the College directs the suspension of Work because of the improper performance of the Contract by the Contractor or those performing its Contract, the Contractor will not be entitled to any extension of any Contract Times or additional compensation by reason of the suspension. If a suspension is directed for reasons other than the fault of the Contractor or others involved in its performance of the Contract, the Contractor will be entitled to an extension under and to the extent authorized in Article 9, and additional compensation under and to the extent authorized by Article 11.

13.2 Termination For Convenience.

The College may, by a written directive, terminate the Contract at any time before completion for the College's convenience or where it concludes that it is in the public interest to do so. The Contractor shall complete any items of Work specified in the notice of termination for convenience and any Work necessary to make the site safe for all persons and property at or near the Project site when the College terminates the Contract for convenience under this Article.

Absent the Contractor fault or violation of the Contract, the Contractor shall be paid in full for all properly completed Work, subject to the payment provisions in the Contract for Construction and these General Conditions. The Contractor will not be entitled to payment for costs and mark-ups for Work or materials not provided before the termination, or costs for Work and materials not provided unless the Contractor cannot avoid liability to pay those costs, or profit or overhead on the portion of the Contract that will not be performed because of the termination, or other types of damages. The extra compensation payable to the Contractor in connection with a termination for convenience may include the cost of materials or equipment purchased for the Project before termination but not installed if the Contractor cannot otherwise use or sell them.

The Contractor will also be entitled to reasonable termination costs in reasonable amounts for additional direct costs in connection with the termination, but not administrative, home office or overhead costs, lost profit, or consequential damages. In addition, any claims shall be subject to the provisions in the Contract for Construction and these General Conditions regarding claims and the maintenance of cost records.

The Contractor shall include provisions similar to this Article in subcontracts and supply contracts for the Project. When a termination for convenience is directed by the College, the Contract shall be closed out in accordance with the provisions of the Contract for Construction and these General Conditions regarding payment and Project completion.

13.3 Termination For Cause.

The College may terminate the Contract for cause if the Contractor (i) commits violations of the Contract Documents, (ii) fails to perform the Work in accordance with the Contract Documents including the Project Schedule, (iii) fails to comply with applicable laws, rules or regulations, (iv) fails to pay Subcontractors or suppliers to the extent reasonably required, (v) becomes insolvent or becomes a debtor in a bankruptcy proceeding, (vi) fails to pay its debts, (vii) is found to have made false or misleading statements to the College in writing in obtaining the Contract or payments, (viii) fails to comply with employment discrimination laws, (ix) fails to pay prevailing wages, (x) fails to maintain or renew the required insurance, (xi) fails to maintain proper protection for the safety of persons or property on the site, (xii) fails to comply with reasonable and authorized directives of the College under the Contract, or (xiii) assigns its rights or interests under the Contract or payments under the Contract to any third party.

If the College terminates the Contract for cause, it shall first send a notice of intent to terminate to the Contractor and the Contractor's surety. The notice shall direct the Contractor to remedy or eliminate the deficiency within a specified time if the problem is one that can be eliminated. If the Contractor fails to reasonably comply with the directive and notice, the College may after 10 days issue a notice of termination to the Contractor and its surety which terminates the Contract effective immediately and specifies the reason for the termination.

If the Contract is terminated, the Contractor shall secure the site and take measures to leave the site safe for persons, material, Work in place and equipment before departing the site, and shall remove all tools and equipment within 5 days of the termination effective date. The Contractor shall not remove any materials or equipment stored on site unless directed to do so by the College. When the Contract is terminated, the Contractor shall deliver materials purchased for the Project and paid for by the College, but not stored on site, together with all appropriate warranties and guaranties to any location designated by the College.

If the Contractor's surety does not take over the completion of the Work in accordance with this Article, the College may appropriate any or all materials on the site that may be suitable and acceptable and may enter into an agreement for the completion of the Work with another contractor, or use other methods to complete the Work.

All damages, costs and charges incurred by the College together with the cost of completing the Work, will be deducted from any monies due or which may become due to the Contractor for Work properly completed by it before the termination. If such expenses exceed the sum available from the unpaid Contract Price, the Contractor and its surety shall be liable and shall pay to the College the amount of such excess in addition to other damages.

The rights and remedies of the College in connection with a termination for cause shall be in addition to other rights and remedies which it has under law, the Contract, and the Contractor's bond.

If the College terminates the Contract for cause and it is subsequently determined by a court that the Contractor was not in default, or that the termination was legally unjustified, the termination will be deemed to be a termination for convenience under this Article, and the rights

and remedies of the Contractor and its surety for the termination will be limited to those which exist in connection with a termination for convenience. If the College terminates the Contract for cause, the Contractor may not file a suit to recover on any claims arising out of the Project before the Work is Substantially Complete.

13.4 Surety Takeover Following Termination For Cause.

If the College terminates the Contractor for cause, the Contractor's performance bond surety may elect to takeover and complete the Contractor's Work and obligations under its Contract. If the surety elects to take over the completion of the Contract, it may only do so on the following conditions:

- (a) The surety must notify the College that it will take over completion of the Contract by a written notice of intent signed by a representative authorized to bind the surety within 5 calendar days of the surety's receipt of the College's notice of termination.
- (b) The surety and the College must execute a written takeover agreement within 10 days after the surety sends its notice of intent to takeover. The takeover agreement signed by the surety and the College, must:
 - i. contain an acknowledgement and agreement by the surety to assume the obligation to complete the balance of the Work under the Contract and to perform all of the Contractor's obligations under the Contract at the surety's sole cost and expense, and to utilize only contractors approved by the College to complete the Work, which approval shall not be unreasonably withheld;
 - ii. provide that the surety is entitled to be paid the unpaid balance under the terminated Contractor's Contract in accordance with and subject to the terms of the Contract for Construction and these General Conditions;
 - iii. provide that the surety is not relieved of any of its obligations under its payment and performance bond for the Project, and that the College retains its right to withhold money for Contract payments to compensate for damages or for other reasons where authorized under the Contract for Construction or these General Conditions; and
 - iv. provide that it is without prejudice to and is subject to all of the rights and remedies of the College, the surety, and the defaulted Contractor, and the surety may not require the College to agree to a takeover agreement that seeks to extinguish any such rights.
- (c) The surety must also pay without delay all obligations of the terminated Contractor for Work and materials on the Project, subject to a reasonable allowance of time to investigate and verify claims.

13.5 Suspension By The Contractor For Non-Payment.

If the Contractor is not paid sums due under an approved invoice within thirty (30) days of the billing date, it may suspend performance without penalty for breach of Contract, but only

after providing the College with 7 days written notice of non-payment, and only in the event that the College fails to furnish the Contractor, within that 7-day period, with a written statement of the amount withheld and the reasons for the withholding. Nothing herein shall be construed to excuse the Contractor's nonperformance, or to limit the College's rights and remedies relating to such nonperformance, with regard to any monies withheld from the Contractor upon the proper notice provided under this Article, or with regard to any Contractor claim disputed by the College.

ARTICLE 14

WARRANTY/DEFECTIVE WORK AND MATERIALS

14.1 General Work One Year Warranty; HVAC Systems Two Year Warranty

The Contractor warrants and guarantees for a one year period that all Work, materials and equipment conform to the Contract Documents and will not fail or manifest defects, that the Project and all its components will be fit for their intended functions, and that all material and equipment will be new and of good quality.

The general one year warranty period (or two year warranty period for HVAC work) shall commence when the Certificate of Substantial Completion is issued, and the one year period (or two year period for HVAC work) shall commence on that date for all components of the Project, including any equipment activated and operated before Substantial Completion, such as HVAC systems, electrical systems and elevators.

During the one year warranty period (or two year warranty period for HVAC work), the Contractor shall repair and remedy at its own expense any premature failure, defects or deficiencies in any Work, materials or equipment that are discovered or that develop during the one year period (or two year period for HVAC work), and shall do so within 5 days after receipt of a written warranty claim from the College. The Contractor shall also repair damages caused by any failure or defect covered by this warranty. A failure to provide the warranty service required shall constitute a breach of this warranty obligation as well as other applicable provisions of the Contract. This warranty shall not cover failures caused solely by substantial misuse or abuse by the College.

This general one year warranty (or two year warranty for HVAC work) is intended to provide the College with prompt warranty service for all aspects of the Project for the one year period (or two year period for HVAC work). It is not intended to limit or extinguish any additional warranties required by any of the Contract Documents, or provided by manufacturers of systems, equipment or materials provided under the Contract. It is not intended to eliminate or reduce the College's rights and remedies under the Contract Documents and law for defects and deficiencies in the Work, materials and equipment, or the time period of the Contractor's general responsibility and liability.

14.2 Defective Work, Materials And Equipment.

Apart from the general one-year warranty provided for in this Article, the Contractor shall be responsible for defective Work, materials and equipment and any failure of these items to comply with the Contract Documents. This obligation shall extend beyond Substantial Completion, Final Completion and the general one year warranty (or two year warranty for HVAC work) in this Article.

If defects in the Work, materials or equipment or non-conforming items are discovered during construction and before Final Completion, the Contractor shall promptly correct them at its own expense. If the Contractor fails to correct defective or non-conforming Work, material or equipment in response to a written notice from the College, either during construction or after Final Completion, the College may employ others to provide the remedial work and the Contractor and its surety shall be liable for the cost thereof and damages incurred by the College. The Contractor and its surety shall also be liable for the cost of making good all Work and material destroyed or damaged by defects or the correction of defects.

If any portion of the Contractor's Contract Price remains in the custody of the College, either earned or unearned, the College may deduct money paid to others to remedy defects after notice is sent to the Contractor and damages incurred by the College when the Contractor fails to provide a remedy in response. The Contractor's responsibility for defects and non-conforming Work, material and equipment shall not be limited in time except by applicable law.

The Contractor's responsibility for defective Work shall not be affected by either the performance or the lack of performance of inspections by the College or the Architect. The issuance of payments, a Certificate of Substantial Completion or a Certificate of Final Completion shall not constitute acceptance of Work, material or equipment that is deficient or not in compliance with the Contract, or limit the Contractor's warranty or the other Contract obligations.

ARTICLE 15

INDEMNIFICATION/LIABILITY TO THIRD PARTIES.

15.1 The Contractor's Indemnification Obligation.

To the fullest extent permitted by law, the Contractor shall defend, indemnify, and hold harmless the College, the State of New Jersey, the New Jersey Educational Facilities Authority, Trenton State College Corporation, and any other persons or entities designated by the College, and the officers, directors, principals, attorneys, agents, servants, and employees of any of them (collectively the "Indemnified Parties") from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from: (1) performance of the Work, whether such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, including loss of use resulting therefrom caused in whole or in part by the negligent or willful acts or omissions of the Contractor, Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder or (2) any one or more of the items set forth in

this Article. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Article.

In claims against any person or entity indemnified under this Article by an employee of the Contractor, a Subcontractor or anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under this Article shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts, nor shall the same be limited by the types or limits of insurance carried or to be carried by the Contractor or any Subcontractor pursuant to the Contract Documents or otherwise.

The indemnity, defense, and hold harmless obligation set forth in this Article shall be supplemented by the following:

- (a) any claims or liens of Subcontractors, except to the extent that the non-payment upon which the claim or lien is predicated resulted solely from the College's wrongful failure to pay the Contractor sums due under the Contract;
- (b) any fines, penalties, liquidated damages, assessments or other executions imposed by any governmental authority having jurisdiction over the Project by reason of the Contractor's failure to comply with any requirement of the Contract;
- (c) any losses, damages, or expenses incurred by reason of the Contractor's failure to obtain and maintain in force or cause to be obtained and maintained, the insurance required by the terms of the Contract;
- (d) any losses, damages, or expenses incurred by reason of any failure (whether or not specifically identified herein) by the Contractor to perform its obligations under the Contract Documents or any breach of the Contract;
- (e) any claims, damages, or expenses incurred by reason of the Contractor's infringement or alleged infringement of any patent, copyright, or other intellectual property or similar rights; and
- (f) any claims, damages, liquidated damages, penalties, or fines assessed against the College, directly or indirectly, solely or partially by reason of the Contractor's failure to comply with any applicable laws, codes, statutes, or regulations.

If any judgment is rendered against the Indemnified Parties for which indemnification is required under this Article, the Contractor shall satisfy and discharge it. The Contractor shall reimburse the College for reasonable attorney fees, costs and expenses incurred by the Indemnified Parties in the defense of such suit or claim.

The College shall give written notice to the Contractor of claims and suits for which indemnification may be claimed pursuant to this Article.

The foregoing obligations shall survive the completion of the Work and final payment to the Contractor (or the sooner termination of the Contract) with respect to all matters accrued during the term of the Contract and such obligations shall not be construed to negate, abridge or reduce any other rights, obligations or indemnity which would otherwise exist as to a party or person indemnified by this Article.

15.2 The Subcontractor's Indemnification Obligation.

The Contractor shall cause the indemnification obligations set forth in this Article to be included in all contracts with its Subcontractors.

ARTICLE 16 **INSURANCE AND BONDS.**

16.1 The Contractor's Insurance.

The Contractor shall purchase from, and maintain with a company or companies lawfully authorized to do business in the State of New Jersey, insurance for protection from claims under workers' compensation and other employee benefit acts which are applicable, claims for damages because of bodily injury, including death, and claims for damages, including the Work itself, to property which may arise out of or result from the Contractor's operations and completed operations under the Contract, whether such operations be by the Contractor or by a Subcontractor or anyone directly or indirectly employed by any of them, until at least 1 year after the Final Completion and acceptance of the Project. This insurance shall be written for not less than the limits set forth below or as required by law, whichever coverage is greater, and shall include contractual liability insurance applicable to the Contractor's obligations under Article 15 (Indemnification). The Contractor expressly agrees that any insurance protection required by the Contract Documents shall in no way limit the Contractor's obligations under the Contract, and shall not be construed to relieve the Contractor from liability in excess of such coverage. Nor shall it preclude the College from taking such actions as are available to it under any other provisions of the Contract for Construction, these General Conditions or the law.

16.1.1 Types and Minimum Amounts of Insurance:

- (a) **Commercial General Liability Insurance (CGL).** Commercial General Liability insurance ISO CG 00 01 12 07 or later occurrence form of insurance including contractual liability with limits of at least one million dollars (\$1,000,000) per occurrence, and at least two million dollars (\$1,000,000) in the aggregate. The general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit. The CGL policy shall also include products/completed operations with limits of at least one million (\$1,000,000) in the aggregate. This insurance shall be maintained for at least one year after the Final Completion of the Project.
- (b) **Automobile Liability Insurance.** Comprehensive Automobile Liability insurance covering owned, non-owned, and hired vehicles. The limits of liability shall not be less than one million dollars (\$1,000,000) combined single limit for bodily injury and property damage for each occurrence.

- (c) **Workers Compensation/ Employer's Liability.** Worker's Compensation Insurance applicable to the laws of the State of New Jersey and other State or Federal jurisdictions required to protect the employees of the Contractor and any Subcontractor, sub-subcontractor or supplier who will be engaged in the performance of the Contract. The certificate must so indicate that no proprietor, partner, executive officer or member is excluded. This insurance shall include Employers' Liability Insurance with a limit of liability not less than one million dollars (\$1,000,000) bodily injury, each occurrence, one million dollars (\$1,000,000) disease, each employee, and one million dollars (\$1,000,000) disease, aggregate limit.

All required insurance coverages must be written by insurance companies acceptable to the College. All insurance companies must have a minimum A.M. Best's financial strength rating of A- or better, or an equivalent rating from another respected rating agency, and an A.M. Best's size rating of VII or greater.

16.1.2 Additional Insureds. All insurance required herein, except Worker's Compensation, shall name The College of New Jersey, the State of New Jersey, the New Jersey Educational Facilities Authority, Trenton State College Corporation and any other persons or entities designated by the College as additional insureds.

16.1.3 Cancellation. The certificates of insurance shall provide for 30 days written notice to the College before any cancellation, expiration or non-renewal during the term the insurance is required by the Contract.

16.1.4 Evidence of Insurance. The Contractor shall when the Contract for Construction is signed and before beginning the Work required under the Contract, provide the College with valid certificates of insurance signed by an insurance provider or authorized agent or underwriter to evidence the Contractor's insurance coverage as required in this Article, and also copies of the policies themselves. The certificates of insurance shall specify that the insurance provided is of the types and in the amounts required in this Article, and that the policies cannot be canceled except after 30 days written notice to the College. The Contractor shall also be required to provide the College with valid certificates of renewal when policies expire. The Contractor shall also, when requested, provide the College with additional copies of each policy and all endorsements required under the Contract, which are certified by an agent or underwriter to be true copies of the policies and endorsements issued to the Contractor.

16.1.5 Remedies for Lack of Insurance. If the Contractor fails to renew any of its required insurance policies, or any policy is canceled, terminated or modified, the College may refuse to pay monies due under the Contract. The College, in its sole discretion and for its sole benefit, may use monies retained under this Article to attempt to renew the Contractor's insurance or obtain substitute coverage if possible for the College's sole benefit, and may invoke other applicable remedies under the Contract for Construction and these General Conditions including claims against the Contractor and its surety. During any period when the required insurance is not in effect, the College may also, in its sole discretion, either suspend the Work under the Contract or terminate the Contract.

16.2 The Subcontractor's Insurance.

The Contractor shall ensure that its Subcontractors purchase and maintain insurance on the same terms and with coverages customary for each trade as required by the Contractor under the Contract. The Contractor shall contractually obligate its Subcontractors to indemnify, defend, and hold harmless the College upon the same terms and conditions that the Contractor is required to do so as provided in Article 15 of these General Conditions (Indemnification).

16.3 Payment And Performance Bond.

The Contractor is required to furnish the College with a payment bond and a performance bond from an approved surety as described in this Article and in the bid documents. The bonds shall conform to N.J.S.A. 2A:44-147. The Contract will not become effective until these bonds are provided to and approved in writing by the College. The bonds must also be accompanied by the surety disclosure statement and certification required by N.J.S.A. 18A:64-68.

ARTICLE 17 **DISPUTE RESOLUTION.**

17.1 Mediation.

If a dispute or claim arises out of or relates to the Contract, or the breach thereof, and if the dispute cannot be settled through negotiation, the dispute or claim may, at the College's sole option, be subject to mediation administered by the American Arbitration Association under its Construction Industry Mediation Rules as a condition precedent to binding dispute resolution. The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in Mercer County, New Jersey, at the offices of the College's attorneys, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable in any court having jurisdiction thereof.

17.2 Method Of Binding Dispute Resolution.

For any dispute or claim, not resolved by mediation pursuant to this Article, the method of binding dispute resolution shall be litigation in the state or district courts of the State of New Jersey, unless the College, in its sole discretion, decides to submit the dispute or claim to arbitration pursuant to this Article.

17.3 Arbitration (If The College Elects To Arbitrate).

If the College decides, in its sole discretion, to submit a dispute or claim to arbitration rather than litigation as provided above, the arbitration shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of the Contract unless the parties mutually agree otherwise. A demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The arbitrator shall be a New Jersey licensed attorney with at least twenty (20) years' experience practicing in construction law. In the event that the parties mutually agree to use a panel of three arbitrators, then the construction attorney will be the

presiding arbitrator, one of the arbitrators will be a registered architect and the other will be a contractor, all of whom shall be neutral and independent. This Article shall not preclude the College or Contractor from instituting legal action to discharge an invalid construction lien. The arbitration hearing shall be held in Mercer County, New Jersey, at the offices of the College's attorneys, unless another location is mutually agreed upon.

A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the claim, dispute or other matter in question would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the claim, dispute or other matter in question.

The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by the parties to the Contract shall be specifically enforceable in accordance with applicable law in any court having jurisdiction thereof.

The award rendered by the arbitrator(s) shall be a reasoned award and shall include a statement of findings of fact and conclusions of law and shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

17.4 Consolidation Or Joinder.

The College, in its sole discretion, may consolidate an arbitration conducted under the Contract with any other arbitration to which it is a party provided that (i) the arbitration agreement governing the other arbitration permits consolidation, (ii) the arbitrations to be consolidated substantially involve common questions of law or fact, and (iii) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

The College, in its sole discretion, may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.

The College, in its sole discretion, may grant to any person or entity made a party to an arbitration conducted under this Article, whether by joinder or consolidation, the same rights of joinder and consolidation as the College under the Contract.

17.5 Work During Pendency Of Dispute.

Unless otherwise instructed by the College, the Contractor shall carry on its Work during the pendency of any dispute hereunder, and the College shall continue making payments to the Contractor of undisputed amounts.

17.6 Prompt Payment Claims.

Notwithstanding the foregoing, disputes regarding only whether a party has failed to make payments required pursuant to New Jersey's Prompt Payment Act may be submitted to alternative dispute resolution as provided in N.J.S.A. 2A:30A-2(f). In such event, the College and the Contractor shall share equally the fees and expenses of the selected mediator. Provided, however, that nothing herein shall be construed, in whole or in part, as a waiver, release or modification of the provisions of the New Jersey Contractual Liability Act, N.J.S.A. 59:13-1, et seq., as it governs claims against the College.

17.7 The Contractor's Claims: Procedures And Limitations.

Claims by the Contractor against the College shall be subject to the New Jersey Contractual Liability Act, N.J.S.A. 59:13-1, et seq., including the notice and time for suit provisions. For the purpose of determining the time within which the Contractor must file suit under the New Jersey Contractual Liability Act, "completion of the contract" shall be deemed to have occurred upon achievement of Substantial Completion as defined in these General Conditions.

The Contractor also agrees that it shall not be entitled to assert claims against the College for any compensation beyond that provided for in the Contract by reason of the acts or omissions of any third parties, including but not limited to the Architect and any other contractor on the Project. The Contractor may not assert claims for extra costs for home offices expenses, home office overhead, lost profits or revenue, or consequential damages as that term is defined in law. All claims shall also be subject to all other pertinent provisions of the Contract for Construction and the Contract Documents including these General Conditions. The Contractor also agrees that it may not assert any claims for extra costs or damages unless it maintains all the records of its estimated and actual costs as required by the Contract for Construction and these General Conditions.

17.8 Dispute Resolution Process In The Contractor's Subcontracts.

The Contractor shall include this dispute resolution process in all of its contracts with any Subcontractors or suppliers on this Project.

ARTICLE 18 **MISCELLANEOUS.**

18.1 Prevailing Wage.

The Contractor and its Subcontractors shall comply with the New Jersey Prevailing Wage Act, N.J.S.A. 34:11-56.25 through 56.57. Workers employed by the Contractor or any Subcontractor or sub-subcontractor in the performance of services directly on the Project must be paid prevailing wages. As required by N.J.S.A. 34:11-56.27 and 56.28, the Contract cannot become effective until the College obtains from the New Jersey Department of Labor a determination of the prevailing wage rates applicable to the Project as of the Contract award date and attaches a copy to the Contract. As required by N.J.S.A. 34:11-56.27, the Contractor or any

Subcontractor may be terminated if any covered worker is not paid prevailing wages on the Project, and the Contractor and its surety shall be liable for any additional costs which result. The Contractor and its Subcontractors must be registered with the New Jersey Department of Labor (N.J.S.A. 34:11-56.51 et seq.), and the prevailing wage rates must be posted at the job site (N.J.S.A. 34:11-56.32). The Contractor and its Subcontractors must prepare accurate certified records of wages paid for each worker on the Project (N.J.S.A. 34:11-56.29), and copies for the period covered by each invoice must be attached to the invoice submitted under the Contract. In accordance with N.J.S.A. 34:11-56.33, the Contractor's final invoice must include a statement of all amounts still then due to workers on the Project. The Contractor is also cautioned that it must use job titles and worker classifications consistent with those approved by the Department of Labor, and that, if it intends to pay apprentice rates, it must comply with the Department of Labor's regulations at N.J.A.C. 12:60-7.1 through 7.4.

If the State's Prevailing Wage Act is amended, or the language stated herein is inconsistent with the language contained in the State's Prevailing Wage Act, the language of the State's Prevailing Wage Act shall control.

18.2 Employment Discrimination.

The Contractor and any Subcontractors employed by it shall comply with N.J.S.A. 10:2-1 through 10:2-4 and N.J.S.A. 10:5-1 et seq., including N.J.S.A. 10:5-31 through 10:5-35, which prohibit discrimination in employment in public contracts. The statute and the rules and regulations promulgated thereunder shall be considered to be part of the Contract and binding upon the Contractor and its Subcontractors. If the College is notified of any violation of the public contract awarding regulations in accordance with N.J.A.C. 17:27-7.4 concerning the financing of minority and women outreach and training programs, the College reserves the rights to deduct the outreach and training allocation from the Contract. During the performance of the Contract, the Contractor agrees that:

- (a) In the hiring of persons for the performance of Work under the Contract or any subcontract hereunder, or for the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under the Contract, neither the Contractor, its Subcontractors nor any person acting on behalf of the Contractor or any of its Subcontractors, shall, by reason of race, creed, religion, color, national origin, nationality, ancestry, age, sex (including pregnancy), familial status, marital status, domestic partnership or civil union status, affectional or sexual orientation, gender identity or expression, atypical hereditary cellular or blood trait, genetic information, liability for military service, and mental or physical disability, perceived disability, and AIDS and HIV status, discriminate against any person who is qualified and available to perform the Work to which the employment relates;
- (b) Neither the Contractor, its Subcontractors, nor any person acting on behalf of the Contractor or any of its Subcontractors shall, in any manner, discriminate against or intimidate any employee engaged in the performance of Work under the Contract or any subcontract hereunder, or engaged in the procurement, manufacture, assembling or furnishing of any

such materials, equipment, supplies or services to be acquired under such contract, on account of race, creed, religion, color, national origin, nationality, ancestry, age, sex (including pregnancy), familial status, marital status, domestic partnership or civil union status, affectional or sexual orientation, gender identity or expression, atypical hereditary cellular or blood trait, genetic information, liability for military service, and mental or physical disability, perceived disability, and AIDS and HIV status;

- (c) There may be deducted from the amount payable to the Contractor by the College, under the Contract, a penalty of \$50.00 for each person for each calendar day during which such person is discriminated against or intimidated in violation of the provisions of the Contract; and
- (d) The Contract may be canceled or terminated by the College, and all money due or to become due hereunder may be forfeited, for any violation of this Article of the Contract occurring after notice to the Contractor from the College of any prior violation of this Article of the Contract. The Contractor and its Subcontractors shall comply with all laws prohibiting discrimination against employees, and shall comply with the provision in the Contract regarding employment discrimination.

If the State's Law Against Discrimination is amended, or the language stated herein is inconsistent with the language contained in the State's Law Against Discrimination, the language of the State's Law Against Discrimination shall control.

18.3 Patents.

If any design, device, material or process covered by patents or copyright is used in the Work, the Contractor shall provide for such use by a suitable agreement with the patent or copyright owner. The Contractor shall bear all costs arising from the use of patented materials, equipment, or processes and all copyrighted materials used on or incorporated in the Work. The Contractor shall defend, indemnify and hold harmless the College and its representatives from any and all claims for infringement by reason of the use of any such patented or copyrighted items.

18.4 The Contractor's Compliance With Law.

The Contractor shall keep fully informed of all federal, state and local laws, ordinances, regulations and orders of agencies that have jurisdiction or authority that in any manner affect those employed on the Project or the Project. The Contractor shall at all times observe and comply with, and cause its agents and employees to observe and comply with, all such laws, ordinances, regulations, and/or orders. The Contractor shall also protect and indemnify, defend and hold harmless the College and its representatives against any claim or liability arising from the violation of any laws, ordinances, regulations, or orders, whether by the Contractor or its employees, agents, Subcontractors at any tier, suppliers or materialmen.

18.5 Environmental Protection – The Contractor’s Duty To Comply With Applicable Law.

The Contractor shall comply with all applicable federal, state and local laws and regulations and all conditions of permits pertaining to the protection of the environment. Necessary precautions shall be taken to prevent pollution of streams, lakes, ponds, rivers, wetlands, groundwater, reservoirs, and property by chemicals, fuels, oils, bitumens, or other harmful or hazardous materials as defined by law. The Contractor also shall not pollute the atmosphere from particulate or gaseous matter in violation of applicable law.

18.6 No Personal Liability Of College Officials.

In carrying out any of the provisions of the Contract, or in exercising any right or authority granted to them by or in connection with the Contract, there shall be no liability upon any trustee, officer or employee of the College, either personally or as officials of the College, it being agreed that in all such functions they act only as agents and representatives of the College.

18.7 Buy American Requirement.

Pursuant to N.J.S.A. 52:32-1 only manufactured and farm products of the United States, whenever available, shall be used in work.

Pursuant to N.J.S.A. 52:33-1 et seq., notwithstanding any inconsistent provision of any law, and unless the head of the department, or other public officer charged with the duty by law, shall determine it to be inconsistent with the public interest, or the cost to be unreasonable, only domestic materials shall be acquired or used for any public work. This Article shall not apply with respect to domestic materials to be used for any public work, if domestic materials of the class or kind to be used are not mined, produced or manufactured, as the case may be, in the United States in commercial quantities and of a satisfactory quality. If the State’s “Buy American” laws are amended, or the language stated herein is inconsistent with the language contained in the State’s “Buy American” laws, the language of the State’s “Buy American” laws shall control.

18.8 Compliance With Grant Requirements. The Contractor acknowledges and agrees that if the College receives any grant monies in connection with the Project, the Contractor and its Subcontractors shall comply with all requirements associated with such grant or set forth in such grant agreement. Any such grant requirements shall be identified in the Request for Proposals.

18.9 Modification Of Contract.

No modification or amendment of the Contract shall be effective unless it is in writing and signed by both the College and the Contractor.

18.10 State Sales Tax Exemption.

Materials, supplies or services for exclusive use in constructing the Project are exempt from the State Sales Tax Act. Rentals of equipment are not exempt from any tax under the State Sales Tax Act.

18.11 Successors and Assigns.

The College and the Contractor respectively bind themselves, their successors and assigns, to the other party hereto and to the successors and assigns of such other party in respect to covenants, agreements and obligations contained in the Contract Documents.

The Contractor shall not assign the Contract, nor shall the Contractor transfer or assign any Contract funds, due or to become due, or claims of any nature it has against the College without the prior written approval of the College. The College in its sole discretion and considering primarily the interests of the College may elect either to grant or to deny such approval. If the Contractor attempts to make such an assignment without the College's prior written approval, the Contractor shall nevertheless remain legally responsible for all obligations under the Contract.

The College shall be entitled to assign its rights hereunder to one or more lenders as collateral for loans which the College may obtain to finance construction of the Project and to a party who presently has or later acquires a legal interest in the premises. The Contractor agrees to execute such certificates, documents and instruments as are reasonably requested by the College, including, without limitation, certificates, documents and instruments that evidence the Contractor's consent to an assignment of the Contract or confirm the absence or existence of a default on the part of the College hereunder.

18.12 Construction Liens.

If any Subcontractor or other person working under the Contractor files a construction lien or claim or notice of intention or right to file a lien for or on account of Work, labor, services, materials, equipment or other items furnished under or in connection with the Contract for which the College has paid the Contractor, the Contractor agrees to discharge or remove such lien, claim or notice at its own expense by bond, payment or otherwise within twenty (20) calendar days from the date of the filing thereof, and upon its failure to do so, the College shall have the right to cause any such lien or claim, notice of intention or stop notice to be removed or discharged by whatever means the College chooses, at the sole cost and expense of the

Contractor (such costs and expenses to include legal fees and disbursements). The Contractor agrees to indemnify, defend and hold harmless the College and its representatives from and against any and all such liens, claims or other filings, and actions brought or judgments rendered thereon, and from and against any and all losses, damages, liabilities, costs and expenses, including legal fees and disbursements, which the College may sustain in connection therewith. Further, if any Subcontractor or other person working under the Contractor files a construction lien or claim or notice of intention or right to file a lien for or on account of Work, labor, services, materials, equipment or other items furnished under or in connection with the Contract for which the College has paid the Contractor, the College may, in the College's sole discretion, pay all wages, damages, recoveries, costs and expenses and reasonable counsel fees arising therefrom and deduct the same from any monies due or to become due to the Contractor.

18.13 Independent Contractor Status.

The relationship of the Contractor to the College is that of an independent contractor. The Contractor agrees that it shall conduct itself consistent with such status, and shall not hold itself out as or claim to be a trustee, officer, employee or agent of the College. The Contractor shall not make any claim or demand for any right or privilege applicable to officers or employees of the College, including but not limited to, workers compensation, unemployment insurance benefits, social security coverage, or retirement benefits.

18.14 Third Party Beneficiary Rights Not Intended.

It is specifically agreed between the College and the Contractor that no provisions of the Contract Documents are intended to make the public or any member thereof a third party beneficiary of the Contract, or to authorize anyone not a party to the Contract to maintain a suit for personal injuries, property damage or other claims under the Contract. It is also the intent of the College and the Contractor that no individual or firm that supplies materials, labor, services, or equipment to the Contractor for the performance of the Work shall be a third party beneficiary of the Contract.

18.15 Gifts To College Employees And Agents Prohibited.

The Contractor shall not give any gifts of any nature, nor any gratuity in any form, nor loan any money or anything of value to any College employee or relative thereof, or any agent of the College. The Contractor shall not rent or purchase any equipment or supplies of any kind from any College employee or relative thereof or any agent of the College.

18.16 Compliance With Procurement Statutes.

The Contractor warrants and represents that the Contract has not been solicited or secured, directly or indirectly, in a manner contrary to the law of New Jersey, and in particular the provisions of N.J.S.A. 18A:64-6.1, 6.2 and 6.3, and that the Contractor has not and shall not violate the law of New Jersey relating to the procurement of or the performance of the Contract by any conduct, including the paying of any gratuity of any kind, directly or indirectly, to any College trustee, employee or officer. Any violation of this Article shall be cause for the College to terminate the Contract, to retain all unpaid and/or unearned monies, and to recover all monies paid. The Contractor shall notify the College in writing of any interest which any trustee, officer,

employee or consultant of the College has in, or association with the Contractor, any other contractor, any Subcontractor, material supplier, consultant, or manufacturer, or other party which has any interest in the Project.

18.17 Conflict Of Interest.

The Contractor shall not pay, offer to pay, or agree to pay, either directly or indirectly, any fee, commission, compensation, gift, gratuity, or other thing of value of any kind to any State officer or employee or special State officer or employee, as defined by N.J.S.A. 52:13D- 13b. and e., in the Department of the Treasury or any other agency with which the Contractor transacts or offers or proposes to transact business, or to any member of the immediate family, as defined by N.J.S.A. 52:13D-13i., of any such officer or employee, or any partnership, firm, or corporation with which they are employed or associated, or in which such officer or employee has an interest within the meaning of N.J.S.A. 52:13D-13g.

The solicitation of any fee, commission, compensation, gift, gratuity or other thing of value by any State officer or employee or special State officer or employee from any State vendor shall be reported in writing forthwith by the Contractor to the Attorney General and the Executive Commission on Ethical Standards.

The Contractor may not, directly or indirectly, undertake any private business, commercial or entrepreneurial relationship with, whether or not pursuant to employment, contract or other agreement, express or implied, or sell any interest in the Contractor to, any State officer or employee or special State officer or employee having any duties or responsibilities in connection with the purchase, acquisition or sale of any property or services by or to any State agency or any instrumentality thereof, or with any person, firm or entity with which he is employed or associated or in which he has an interest within the meaning of N.J.S.A.52:13D-13g. Any relationships subject to this Article shall be reported in writing forthwith to the Executive Commission on Ethical Standards, which may grant a waiver of this restriction upon application of the State officer or employee or special State officer or employee upon a finding that the present or proposed relationship does not present the potential, actuality or appearance of a conflict of interest.

The Contractor shall not influence, or attempt to influence or cause to be influenced, any State officer or employee or special State officer or employee in his official capacity in any manner which might tend to impair the objectivity or independence of judgment of said officer or employee.

The Contractor shall not cause or influence, or attempt to cause or influence, any State officer or employee or special State officer or employee to use, or attempt to use, his official position to secure unwarranted privileges or advantages for the Contractor or any other person.

The provisions cited above shall not be construed to prohibit a State officer or employee or special State officer or employee from receiving gifts from or contracting with the Contractor under the same terms and conditions as are offered or made available to members of the general public subject to any guidelines the Executive Commission on Ethical Standards may promulgate.

The Contractor shall require its Subcontractors and suppliers to comply with the requirements of this Article.

18.18 Confidential Information.

The Contractor shall maintain the confidentiality of information specifically designated as confidential by the College, unless withholding such information would violate applicable law. The Contractor shall require its Subcontractors to maintain the confidentiality of information specifically designated as confidential by the College.

18.19 Publicity.

Publicity and/or public announcements pertaining to the Project must be approved in writing by the College prior to release.

OBJECTIVE: To safely and efficiently refurbish and restore two existing reverse osmosis (RO) systems to their original design specifications and full operational capacity, ensuring reliable performance, regulatory compliance, and water quality standards.

1. System Details:

- 2 Reverse Osmosis Systems: Flexeon CT-7000
 - The units are located on opposite sides of the Music Building Penthouse.
 - Each unit has a TDS tank before and a pressurized storage tank after that these fill for use on the dehumidification system.
-

2. Project Overview

This project involves inspection, cleaning, repair, component replacement, and performance testing of two RO systems. The systems have degraded or are not functioning optimally and must be returned to original design condition per OEM specifications.

3. Scope of Work

3.1 Pre-Work Assessment

- Conduct a full inspection and assessment of both RO systems, including:
 - Piping, pumps, membrane housings, and electrical systems.
 - Control systems, instrumentation, and safety devices.

3.2 System Disassembly and Cleaning

- Safely depressurize and drain systems.
- Remove membranes, clean housings, and inspect internal components.
- Perform chemical cleaning of membranes if viable, or dispose of per guidelines.
- Clean and flush all pipework, pre-treatment units, and tanks.

3.3 Component Refurbishment

- Ensure RO pump is operational and functioning properly replace/repair as needed
- Need to acquire and install new membranes for the RO shells and any pretreatment needs
- Ensure piping and controls (pressure/level) are restored to original design
- Replenish/restore TDS tank, controls, and piping to full original functionality
- Restore high discharge pressure storage tank, controls and piping to full original functionality

3.5 Commissioning and Testing

- Start up the systems under supervision of TCNJ employees.
- Conduct performance testing.

3.6 Documentation and Handover

- Inspection and test reports.
 - Conduct training for facility personnel on system operation and care.
-

4. Deliverables

- Two fully operational RO systems restored to original design specifications.
 - Provide a training session to TCNJ operators of equipment
 - Provide recommendations for proper PM and any pretreatment that may be needed
-

5. Timeline

- Substantial completion by September 20, 2025
 - Key milestones:
 - Day 1–3: Assessment and planning
 - Day 4–10: Disassembly, cleaning, and component replacement
 - Day 11–13: Reassembly and commissioning
 - Day 14–15: Final testing and handover
-

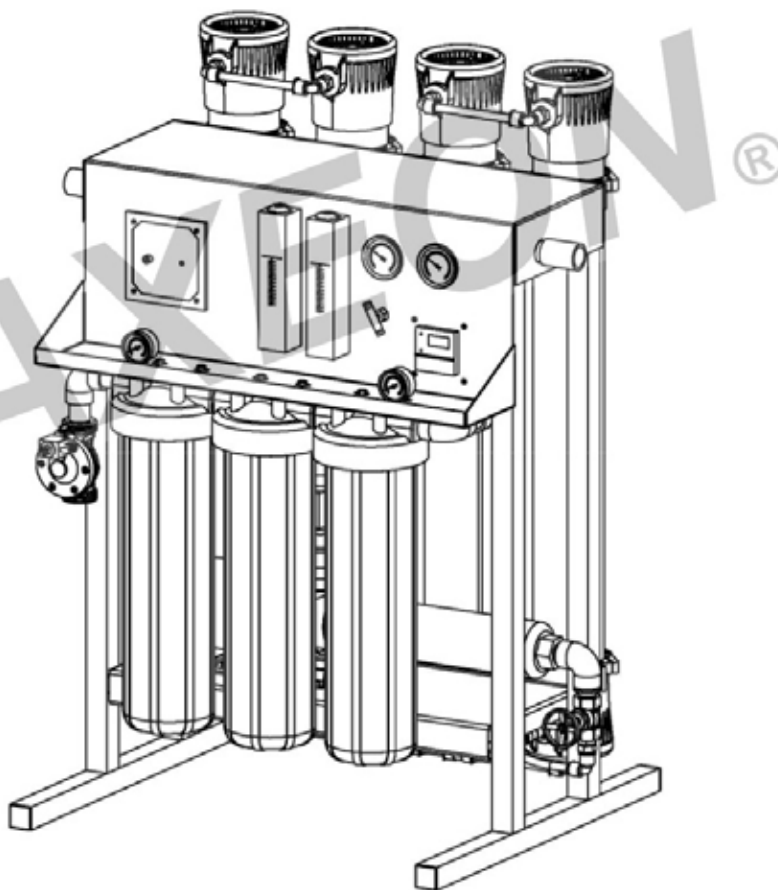
6. Assumptions

- Site access and utilities (water, power, etc.) will be made available.
 - All work will comply with local regulations and safety standards.
-

Reverse Osmosis User's Manual

Model

CT-4000, CT-5000, CT-7000



CT-7000 Pictured

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AXEON®

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INTRODUCTION

Your CT-Series system is a durable piece of equipment which, with proper care, will last for many years. This User's Manual outlines installation, operation, maintenance and troubleshooting details vital to the sustained performance of your system.

The test results which are included with this User's Manual indicate your system's permeate (product) and concentrate (waste) test results.

If your system is altered at the site of operation or if the feed water conditions change, please contact your local dealer or distributor to determine the proper recovery for your application.



NOTE: IN ORDER TO MAINTAIN THE MANUFACTURER'S WARRANTY, AN OPERATING LOG MUST BE MAINTAINED AND COPIES WILL NEED TO BE SENT TO YOUR LOCAL DEALER OR DISTRIBUTOR FOR REVIEW.



NOTE: PRIOR TO OPERATING OR SERVICING THE REVERSE OSMOSIS SYSTEM, THIS USER'S MANUAL MUST BE READ AND FULLY UNDERSTOOD. KEEP THIS AND OTHER ASSOCIATED INFORMATION FOR FUTURE REFERENCE AND FOR NEW OPERATORS OR QUALIFIED PERSONNEL NEAR THE SYSTEM.

SAFETY

The Safety section of this User's Manual outlines the various safety headings used throughout this manual's text and are enhanced and defined below:

NOTE: INDICATES STATEMENTS THAT PROVIDE FURTHER INFORMATION AND CLARIFICATION.



CAUTION: INDICATES STATEMENTS THAT ARE USED TO IDENTIFY CONDITIONS OR PRACTICES THAT COULD RESULT IN EQUIPMENT OR OTHER PROPERTY DAMAGE.



WARNING: INDICATES STATEMENTS THAT ARE USED TO IDENTIFY CONDITIONS OR PRACTICES THAT COULD RESULT IN INJURY OR LOSS OF LIFE. FAILURE TO FOLLOW WARNINGS COULD RESULT IN SERIOUS INJURY OR EVEN DEATH.



DO NOT UNDER ANY CIRCUMSTANCE REMOVE ANY CAUTION, WARNING, OR OTHER DESCRIPTIVE LABELS FROM THE SYSTEM.

FEED WATER AND OPERATION SPECIFICATIONS

Nothing has a greater effect on a reverse osmosis system than the feed water quality.



NOTE: IT IS VERY IMPORTANT TO MEET THE MINIMUM FEED WATER REQUIREMENTS. FAILURE TO DO SO WILL CAUSE THE MEMBRANES TO FOUL AND VOID THE MANUFACTURER'S WARRANTY.

OPERATING LIMITS

Operating Limits

Maximum Feed Temperature °F (°C)	85 (29.00)	Maximum Free Chlorine ppm	0
Minimum Feed Temperature °F (°C)	40 (4.44)	Maximum TDS ppm	2000
Maximum Ambient Temperature °F (°C)	120 (48.89)	Maximum Hardness gpg††	0
Minimum Ambient Temperature °F (°C)	40 (4.44)	Maximum pH (Continuous)	11
Maximum Feed Pressure psi (bar)	85 (5.86)	Minimum pH (Continuous)	5
Minimum Feed Pressure psi (bar)	45 (3.10)	Maximum pH (Cleaning 30 Min.)	12
Maximum Operating Pressure psi (bar)	150 (10.34)	Minimum pH (Cleaning 30 Min.)	2
Maximum SDI Rating SDI	<3		
Maximum Turbidity NTU	1		

Test Parameters: 550 TDS Filtered (5 Micron), De-Chlorinated, Municipal Feed Water, 65 psi (4.50 bar) Feed Pressure, 150 psi (10.34 bar) Operating Pressure, 77 Degrees F (25 Degrees C), Recovery as stated, 7.0 pH. Data taken after 60 minutes of operation.

† Low temperatures and high feed water TDS levels will significantly affect systems production capabilities. Computer projections should be run for individual applications which do not meet or exceed minimum and maximum operating limits.

†† Scale prevention measures must be taken to prolong membrane life.



NOTE: HIGHER TDS AND/OR LOWER TEMPERATURES WILL REDUCE THE SYSTEM'S PRODUCTION.

REJECTION, RECOVERY AND FLOW RATES

CT-Series reverse osmosis systems are designed to produce permeate water at the capacities indicated by the suffix in the system's name under the conditions listed above. For example, the CT-4000 produces 4000 gallons per day of permeate water at the listed operating test conditions.

The amount of total dissolved solids (TDS) rejected by the membrane is expressed as a percentage. For example, a 98.5% rejection rate means that 98.5% of total dissolved

solids do not pass through the membrane. To calculate the % rejection, use the following formula:

$$\% \text{ Rejection} = [(\text{Feed TDS} - \text{Product TDS}) / \text{Feed TDS}] \times 100$$

Example:

$$98.5\% = [(550 - 8.25) / 550] \times 100$$



NOTE: ALL TDS FIGURES MUST BE EXPRESSED IN THE SAME UNITS, TYPICALLY PARTS PER MILLION (PPM) OR MILLIGRAMS PER LITER (MG/L).

CT-Series reverse osmosis systems are designed to reject up to 98.5% NaCl, unless computer projections have been provided or stated otherwise.

The amount of permeate water recovered for use is expressed as a percentage. To calculate % recovery, use the following formula:

$$\% \text{ Recovery} = (\text{Product Water Flow Rate} / \text{Feed Water Flow Rate}) \times 100$$

Example:

$$40\% = (2.78 / 7.0) \times 100$$



NOTE: ALL FLOW RATES MUST BE EXPRESSED IN THE SAME UNITS, TYPICALLY GALLONS PER MINUTE (GPM).

SYSTEM REQUIREMENTS AND OPERATION GUIDELINES

PLUMBING

The membranes and high pressure pumps used on CT-Series systems require a continuous flow of water with a minimum feed pressure of 45 psi, not to exceed 85°F.

FEED WATER CONNECTION

1. Locate the 1" FNPT solenoid valve feed water inlet.
(Figure 1A, Page 15)
2. Attach the inlet piping to the 1" FNPT solenoid valve feed water inlet.
3. Be certain that all of the components of the feed water are soluble at the concentrations attained in the system.



NOTE: FEED LINE MUST BE MINIMUM 3/4" INCH.

PERMEATE (PRODUCT WATER) CONNECTION

Locate the 1" connection labeled permeate and attach to storage tank. Ensure that the permeate water can flow freely with no backpressure. Backpressure can cause irreversible damage to the membrane elements. The 1" permeate line can be run to the holding tank with PVC fittings, or other FDA approved materials. This is so the material being used does not dissolve into the permeate water.



CAUTION THE PH OF THE REVERSE OSMOSIS PERMEATE WATER WILL TYPICALLY BE 1-2 POINTS LOWER THAN THE FEED WATER PH. A LOW PH CAN BE VERY AGGRESSIVE TO SOME PLUMBING MATERIALS SUCH AS COPPER PIPING.

CONCENTRATE (WASTE WATER) CONNECTION

Locate the 1" connection labeled concentrate and attach to a drain. Run the concentrate line to an open drain in a free and unrestricted manner (no backpressure).



CAUTION: ANY RESTRICTIONS OR BLOCKAGE IN THE DRAIN LINE CAN CAUSE BACKPRESSURE, WHICH WILL INCREASE THE SYSTEM'S OPERATING PRESSURE. THIS CAN RESULT IN DAMAGE TO THE SYSTEM'S MEMBRANES AND COMPONENTS.

ELECTRICAL

The motor used on the CT-Series systems are a pump and motor combination. The motor is available in 220/380/460 Volt, 50/60 Hertz, 1 Phase/3 phase. Each CT-Series system is equipped with a 5 foot electrical cord.

Ensure that the electrical circuit supplying the system is compatible with the requirements of the specific CT model you are installing.



NOTE: IT'S RECOMMENDED THAT A LICENSED ELECTRICIAN WIRE YOUR SYSTEM IN ACCORDANCE WITH LOCAL AND NATIONAL ELECTRICAL CODES (NEC).



WARNING: TO REDUCE THE RISK OF ELECTRICAL SHOCK, THE INCOMING POWER SUPPLY MUST INCLUDE A PROTECTIVE EARTH GROUND.

CT-Series systems are typically controlled with a liquid level switch in a storage tank. The liquid level switch turns the system on when the water level in the tank drops, and off when the tank is full. Liquid level switches can be obtained by your local dealer or distributor. If a liquid level switch is to be used, install it at this time.

PRE-FILTRATION

CT-Series systems are supplied with a 5 micron sediment filter, a 10 micron carbon block and a 1 micron sediment filter. Change the cartridge once a month or when a 10-15 psi differential exists between the two pre-filters. Ask your local dealer or distributor about Pre-Filtration systems, if required.



NOTE: THE SYSTEM MUST BE OPERATED ON FILTERED WATER ONLY.

PUMP

The pump type used on the CT-Series systems is a multi-stage centrifugal carbon steel pump. These pumps are also available as an option in stainless steel.

Follow these guidelines to ensure proper operation of the pump:

- The pump must **NEVER** be run dry. Operating the pump without sufficient feed water will damage the pump.
- **ALWAYS** feed the pump with filtered water. The pump is susceptible to damage from sediment and debris.
- If any damage occurs to your system's pump, a re-build kit may be available. Contact your local dealer or distributor and inform them of your system's model and pump size.

MOUNTING

The free standing system should be bolted down in compliance with local regulation standards or securely fastened.

MEMBRANE ELEMENTS

CT-Series reverse osmosis systems come pre-loaded with Thin Film Composite (TFC) HF1 High Flow Low Energy membranes, unless otherwise specified. General membrane element performance characteristics are listed on the next page.

AXEON®

HF1-STANDARD

- Membrane Type: Polyamide Thin-Film Composite
- pH Range, Short Term Cleaning (30 Min.): 1 – 13
- Maximum Operating Temperature: 113°F (45°C)
- Maximum Feed Silt Density Index (SDI): 5
- Maximum Operating Pressure: 600 psi (41 bar)
- Chlorine Tolerance: 0 ppm
- pH Range, Continuous Operation*: 2 – 11

* Maximum temperature for continuous operations above pH10 is 95° F (35°c)

Product Specifications

Part Number	Description	Applied Pressure psi (bar)	Permeate Flow Rate gpd (m3/d)	Nominal Salt Rejection (%)	Part Number	Description	Applied Pressure psi (bar)	Permeate Flow Rate gpd (m3/d)	Nominal Salt Rejection (%)
200374	HF1 – 2514	150 (10.34)	225 (0.85)	99.0	200377	HF1 – 4014	150 (10.34)	600 (2.27)	99.0
200375	HF1 – 2521	150 (10.34)	400 (1.51)	99.0	200378	HF1 – 4021	150 (10.34)	1000 (3.79)	99.0
200376	HF1 – 2540	150 (10.34)	1000 (3.79)	99.0	200379	HF1 – 4040	150 (10.34)	2500 (9.46)	99.0

Test Parameters: 550 TDS Filtered (5 Micron), De-Chlorinated, Municipal Feed Water, 77 Degrees F, 15% Permeate Recovery, 6.5 - 7.0 pH Range, at the Specified Operating Pressure. Data Taken After 30 Minutes of Operation. Maximum Pressure drop for each element is 15 psi. Minimum salt rejection is 96%. Permeate flow for individual elements may vary +/- 20%.



Dimensions inch (mm)

Description	A	B	C	D	Description	A	B	C	D
HF1 – 2514	14 (355.6)	1.1 (27.94)	0.75 (19.05)	2.4 (60.96)	HF1 – 4014	14 (355.6)	1.1 (27.94)	0.75 (19.05)	3.95 (100.3)
HF1 – 2521	21 (533.4)	1.1 (27.94)	0.75 (19.05)	2.4 (60.96)	HF1 – 4021	21 (533.4)	1.1 (27.94)	0.75 (19.05)	3.95 (100.3)
HF1 – 2540	40 (1016.0)	1.1 (27.94)	0.75 (19.05)	2.4 (60.96)	HF1 – 4040	40 (1016.0)	1.1 (27.94)	0.75 (19.05)	3.95 (100.3)

Under certain conditions, the presence of free chlorine and other oxidizing agents will cause premature membrane failure. Since oxidation damage is not covered under warranty, the manufacturer recommends removing residual free chlorine by pretreatment prior to membrane exposure. Wet tested membrane elements must be kept sealed and moist when in storage. Drying out may occur and damage the membrane permanently. Prevent elements from freezing or being exposed to direct sunlight. Wet tested elements are vacuum sealed in a polyethylene bag containing 1.0% sodium meta-bisulfite and then packaged in a cardboard box. Discard the permeate for the first twenty-four hours of operation. The permeate flow (product water flow) varies with feed water temperature. For membrane warranty information, please contact the manufacturer.

The manufacturer believes the information and data contained herein to be accurate and useful. The information and data are offered in good faith, but without guarantee, as conditions and methods of use of products are beyond the manufacturer's control. The manufacturer assumes no liability for results obtained or damages incurred through the application of the presented information and data. It is the user's responsibility to determine the appropriateness of these products for the user's specific end uses.

HF4-OPTIONAL

- Membrane Type: Polyamide Thin-Film Composite
- pH Range, Short Term Cleaning (30 Min.): 1 – 13
- Maximum Operating Temperature: 113°F (45°C)
- Maximum Feed Silt Density Index: 5
- Maximum Operating Pressure: 600 psi (41 bar)
- Chlorine Tolerance: 0 ppm
- pH Range, Continuous Operation*: 2 – 11

* Maximum temperature for continuous operations above pH10 is 95° F (35°c)

Product Specifications

Part Number	Description	Applied Pressure psi (bar)	Permeate Flow Rate gpd (m3/d)	Nominal Salt Rejection (%)
200386	HF4 – 2514	100 (6.89)	225 (0.85)	99.0
200387	HF4 – 2521	100 (6.89)	400 (1.51)	99.0
200388	HF4 – 2540	100 (6.89)	850 (3.22)	99.0

Part Number	Description	Applied Pressure psi (bar)	Permeate Flow Rate gpd (m3/d)	Nominal Salt Rejection (%)
200389	HF4 – 4014	100 (6.89)	600 (2.27)	99.0
200390	HF4 – 4021	100 (6.89)	1000 (3.79)	99.0
200391	HF4 – 4040	100 (6.89)	2500 (9.46)	99.0

Test Parameters: 550 TDS Filtered (5 Micron), De-Chlorinated, Municipal Feed Water, 77 Degrees F, 15% Permeate Recovery, 6.5 - 7.0 pH Range, at the Specified Operating Pressure. Data Taken After 30 Minutes of Operation. Maximum Pressure drop for each element is 13 psi. Minimum salt rejection is 96%. Permeate flow for individual elements may vary +/- 20%.



Dimensions inch (mm)

Description	A	B	C	D
HF4 – 2514	14 (355.6)	1.1 (27.94)	0.75 (19.05)	2.4 (60.96)
HF4 – 2521	21 (533.4)	1.1 (27.94)	0.75 (19.05)	2.4 (60.96)
HF4 – 2540	40 (1016.0)	1.1 (27.94)	0.75 (19.05)	2.4 (60.96)

Description	A	B	C	D
HF4 – 4014	14 (355.6)	1.1 (27.94)	0.75 (19.05)	3.95 (100.3)
HF4 – 4021	21 (533.4)	1.1 (27.94)	0.75 (19.05)	3.95 (100.3)
HF4 – 4040	40 (1016.0)	1.1 (27.94)	0.75 (19.05)	3.95 (100.3)

Under certain conditions, the presence of free chlorine and other oxidizing agents will cause premature membrane failure. Since oxidation damage is not covered under warranty, the manufacturer recommends removing residual free chlorine by pretreatment prior to membrane exposure. Wet tested membrane elements must be kept sealed and moist when in storage. Drying out may occur and damage the membrane permanently. Prevent elements from freezing or being exposed to direct sunlight. Wet tested elements are vacuum sealed in a polyethylene bag containing 1.0% sodium meta-bisulfite and then packaged in a cardboard box. Discard the permeate for the first twenty-four hours of operation. The permeate flow (product water flow) varies with feed water temperature. For membrane warranty information, please contact the manufacturer.

The manufacturer believes the information and data contained herein to be accurate and useful. The information and data are offered in good faith, but without guarantee, as conditions and methods of use of products are beyond the manufacturer's control. The manufacturer assumes no liability for results obtained or damages incurred through the application of the presented information and data. It is the user's responsibility to determine the appropriateness of these products for the user's specific end uses.

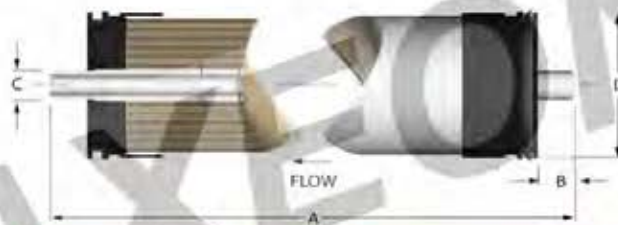
HF5-OPTIONAL

- Membrane Type: Polyamide Thin-Film Composite
- pH Range, Short Term Cleaning (30 Min.): 1 – 13
- Maximum Operating Temperature: 113°F (45°C)
- Maximum Feed Silt Density Index: 5
- Maximum Operating Pressure: 400 psi (27.58 bar)
- Chlorine Tolerance: 0 ppm
- pH Range, Continuous Operation*: 2 – 11

* Maximum temperature for continuous operations above pH10 is 95° F (35°c)

Product Specifications						
Part Number	Description	Applied Pressure psi (bar)	Permeate Flow Rate psi (gpd)	Applied Pressure psi (bar)	Permeate Flow Rate gpd (m3/d)	Nominal Salt Rejection (%)
200392	HF5 – 4014	80 (5.52)	600 (2.27)	100 (6.89)	720 (3.72)	98.5
200393	HF5 – 4021	80 (5.52)	1000 (3.79)	100 (6.89)	1200 (4.54)	98.5
200394	HF5 – 4040	80 (5.52)	2500 (9.46)	100 (6.89)	3000 (11.36)	98.5

Test Parameters: 550 TDS Filtered (5 Micron), DeChlorinated, Municipal Feed Water, 77 Degrees F, 15% Permeate Recovery, 6.5 - 7.0 pH Range, at the Specified Operating Pressure. Data Taken After 30 Minutes of Operation. Maximum Pressure drop for each element is 13 psi. Minimum salt rejection is 96%. Permeate flow for individual elements may vary +/- 20%.



Dimensions inch (mm):				
Description	A	B	C	D
HF5 – 4014	14 (355.6)	1.1 (27.94)	0.75 (19.05)	3.95 (100.3)
HF5 – 4021	21 (533.4)	1.1 (27.94)	0.75 (19.05)	3.95 (100.3)
HF5 – 4040	40 (1016.0)	1.1 (27.94)	0.75 (19.05)	3.95 (100.3)

Under certain conditions, the presence of free chlorine and other oxidizing agents will cause premature membrane failure. Since oxidation damage is not covered under warranty, the manufacturer recommends removing residual free chlorine by pretreatment prior to membrane exposure. Wet tested membrane elements must be kept sealed and moist when in storage. Drying out may occur and damage the membrane permanently. Prevent elements from freezing or being exposed to direct sunlight. Wet tested elements are vacuum sealed in a polyethylene bag containing 1.0% sodium meta-bisulfite and then packaged in a cardboard box. Discard the permeate for the first twenty-four hours of operation. The permeate flow (product water flow) varies with feed water temperature. For membrane warranty information, please contact the manufacturer.

The manufacturer believes the information and data contained herein to be accurate and useful. The information and data are offered in good faith, but without guarantee, as conditions and methods of use of products are beyond the manufacturer's control. The manufacturer assumes no liability for results obtained or damages incurred through the application of the presented information and data. It is the user's responsibility to determine the appropriateness of these products for the user's specific end uses.

NF3-OPTIONAL

- Membrane Type: Polyamide Thin-Film Composite
- pH Range, Short Term Cleaning (30 Min.): 1 – 12
- Maximum Operating Temperature: 113°F (45°C)
- Maximum Feed Silt Density Index: 5
- Maximum Operating Pressure: 600 psi (41 bar)
- Chlorine Tolerance: 0 ppm
- pH Range, Continuous Operation*: 2 – 11

* Maximum temperature for continuous operations above pH10 is 95° F (35°c)

Product Specifications

Part Number	Description	Applied Pressure psi (bar)	Permeate Flow Rate gpd (m3/d)	Nominal Salt Rejection (%)	Part Number	Description	Applied Pressure psi (bar)	Permeate Flow Rate gpd (m3/d)	Nominal Salt Rejection (%)
200401	NF3 – 2514	70 (4.83)	200 (0.76)	40 – 50	200404	NF3 – 4014	70 (4.83)	400 (1.51)	40 – 50
200402	NF3 – 2521	70 (4.83)	350 (1.33)	40 – 50	200405	NF3 – 4021	70 (4.83)	1000 (3.79)	40 – 50
200403	NF3 – 2540	70 (4.83)	850 (3.22)	40 – 50	200406	NF3 – 4040	70 (4.83)	2500 (9.46)	40 – 50

Test Parameters: 550 TDS Filtered (5 Micron), De-Chlorinated, Municipal Feed Water, 77 Degrees F, 15% Permeate Recovery, 6.5 - 7.0 pH Range, at the Specified Operating Pressure. Data Taken After 30 Minutes of Operation. Maximum Pressure drop for each element is 13 psi. Minimum salt rejection is 96%. Permeate flow for individual elements may vary +/- 20%.



Dimensions inch (mm)

Description	A	B	C	D	Description	A	B	C	D
NF3 – 2514	14 (355.6)	1.1 (27.94)	0.75 (19.05)	2.4 (60.96)	NF3 – 4014	14 (355.6)	1.1 (27.94)	0.75 (19.05)	3.95 (100.3)
NF3 – 2521	21 (533.4)	1.1 (27.94)	0.75 (19.05)	2.4 (60.96)	NF3 – 4021	21 (533.4)	1.1 (27.94)	0.75 (19.05)	3.95 (100.3)
NF3 – 2540	40 (1016.0)	1.1 (27.94)	0.75 (19.05)	2.4 (60.96)	NF3 – 4040	40 (1016.0)	1.1 (27.94)	0.75 (19.05)	3.95 (100.3)

Under certain conditions, the presence of free chlorine and other oxidizing agents will cause premature membrane failure. Since oxidation damage is not covered under warranty, the manufacturer recommends removing residual free chlorine by pretreatment prior to membrane exposure. Wet tested membrane elements must be kept sealed and moist when in storage. Drying out may occur and damage the membrane permanently. Prevent elements from freezing or being exposed to direct sunlight. Wet tested elements are vacuum sealed in a polyethylene bag containing 1.0% sodium metabisulfite and then packaged in a cardboard box. Discard the permeate for the first twenty-four hours of operation. The permeate flow (product water flow) varies with feed water temperature. For membrane warranty information, please contact the manufacturer.

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NF4-OPTIONAL

- Membrane Type: Polyamide Thin-Film Composite
- pH Range, Short Term Cleaning (30 Min.): 1 – 12
- Maximum Operating Temperature: 113°F (45°C)
- Maximum Feed Silt Density Index: 5
- Maximum Operating Pressure: 600 psi (41 bar)
- Chlorine Tolerance: 0 ppm
- pH Range, Continuous Operation*: 2 – 11

* Maximum temperature for continuous operations above pH10 is 95° F (35°c)

Product Specifications

Part Number	Description	Applied Pressure psi (bar)	Permeate Flow Rate gpd (m3/d)	Nominal Salt Rejection (%)
200407	NF4 – 2514	70 (4.83)	200 (0.76)	80 – 90
200408	NF4 – 2521	70 (4.83)	250 (0.95)	80 – 90
200409	NF4 – 2540	70 (4.83)	680 (2.57)	80 – 90

Part Number	Description	Applied Pressure psi (bar)	Permeate Flow Rate gpd (m3/d)	Nominal Salt Rejection (%)
200410	NF4 – 4014	70 (4.83)	400 (1.51)	80 – 90
200411	NF4 – 4021	70 (4.83)	950 (3.60)	80 – 90
200412	NF4 – 4040	70 (4.83)	2000 (7.6)	80 – 90

Test Parameters: 550 TDS Filtered (5 Micron), De-Chlorinated, Municipal Feed Water, 77 Degrees F, 15% Permeate Recovery, 6.5 - 7.0 pH Range, at the Specified Operating Pressure. Data Taken After 30 Minutes of Operation. Maximum Pressure drop for each element is 13 psi. Minimum salt rejection is 96%. Permeate flow for individual elements may vary +/- 20%.



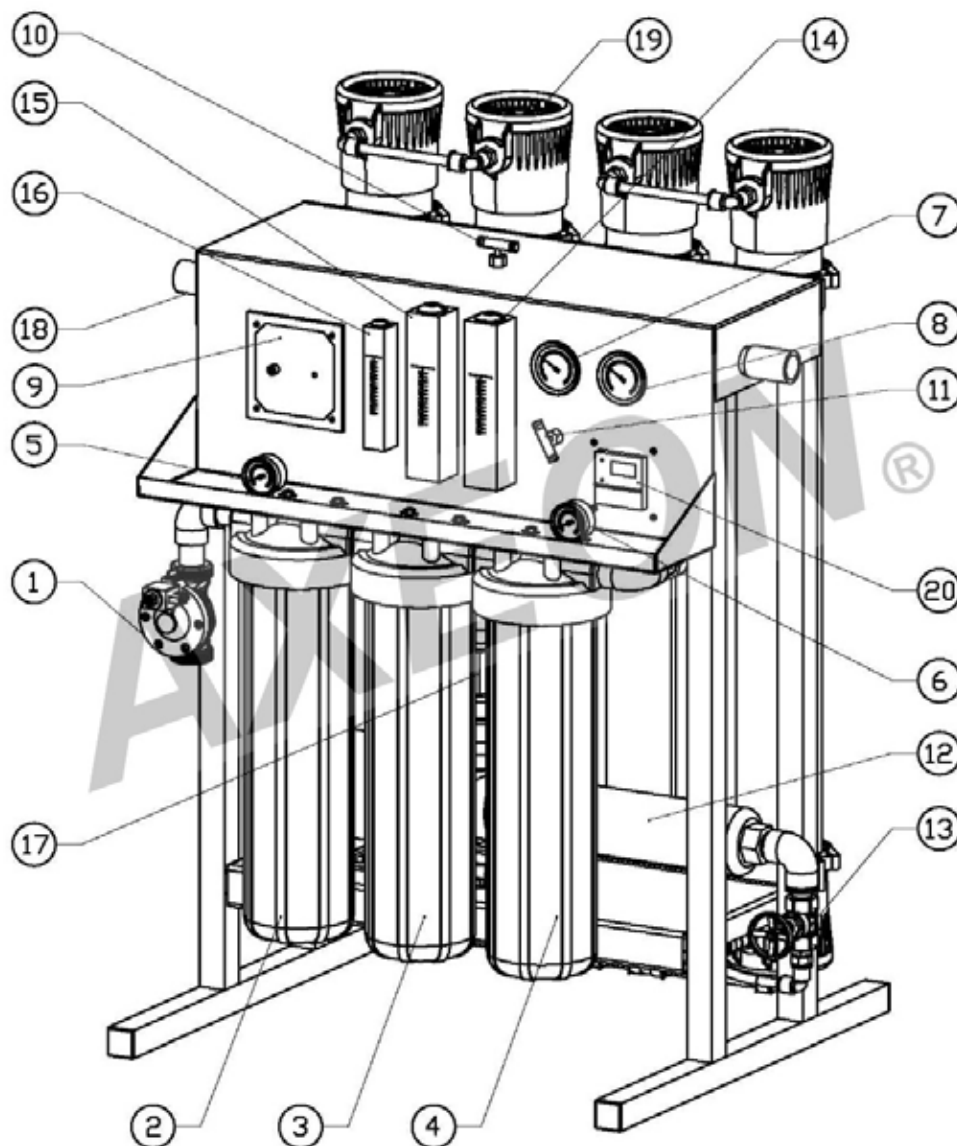
Dimensions inch (mm)

Description	A	B	C	D
NF4 – 2514	14 (355.6)	1.1 (27.94)	0.75 (19.05)	2.4 (60.96)
NF4 – 2521	21 (533.4)	1.1 (27.94)	0.75 (19.05)	2.4 (60.96)
NF4 – 2540	40 (1016.0)	1.1 (27.94)	0.75 (19.05)	2.4 (60.96)

Description	A	B	C	D
NF4 – 4014	14 (355.6)	1.1 (27.94)	0.75 (19.05)	3.95 (100.3)
NF4 – 4021	21 (533.4)	1.1 (27.94)	0.75 (19.05)	3.95 (100.3)
NF4 – 4040	40 (1016.0)	1.1 (27.94)	0.75 (19.05)	3.95 (100.3)

Under certain conditions, the presence of free chlorine and other oxidizing agents will cause premature membrane failure. Since oxidation damage is not covered under warranty, the manufacturer recommends removing residual free chlorine by pretreatment prior to membrane exposure. Wet tested membrane elements must be kept sealed and moist when in storage. Drying out may occur and damage the membrane permanently. Prevent elements from freezing or being exposed to direct sunlight. Wet tested elements are vacuum sealed in a polyethylene bag containing 1.0% sodium meta-bisulfite and then packaged in a cardboard box. Discard the permeate for the first twenty-four hours of operation. The permeate flow (product water flow) varies with feed water temperature. For membrane warranty information, please contact the manufacturer.

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CT-4000, CT-5000, CT-7000 SYSTEM IDENTIFICATION**FIGURE 1A**

NUMBER IDENTIFICATION

1. Solenoid Valve – Turns On/Off Feed Water
2. 5 Micron Sediment – Removes particulates
3. 10 Micron Carbon Block - Removes Chlorine
4. 1 Micron Sediment – Removes particulates
5. Pressure Gauge - Measures feed pressure
6. Pressure Gauge - Measures pressure after filters
7. Pressure Gauge - Measures pump pressure
8. Pressure Gauge – Measures concentrate pressure
9. Computer Control - Controls RO system
10. Recycle Valve – Recycles concentrate back to feed (if applicable)
11. Concentrate Valve – Controls flow of concentrate (waste) water to the drain
12. RO Pump and Motor - Pressurizes RO System
13. Throttle Valve – Controls flow of the pump
14. Flow Meter - Measures flow of permeate water
15. Flow Meter - Measures flow of concentrate (waste) water
16. Flow Meter - Measures flow of concentrate recycle water (if applicable)
17. Pressure Switch – Turns the pump off at 15 PSI feed pressure
18. Permeate Check Valve- Protects membranes from back pressure
19. Pressure Vessels – Houses Membrane Elements
20. TDS Meter – Reads the quality of the permeate water

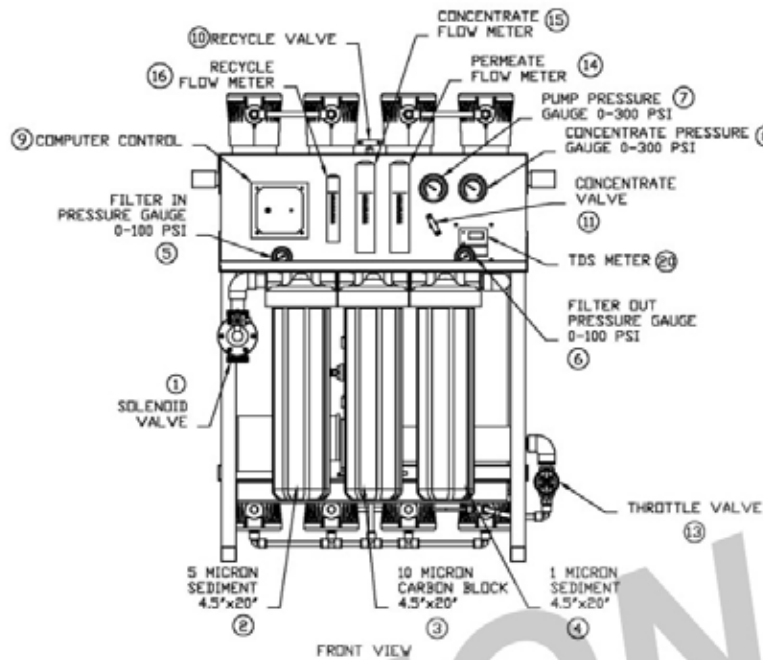


FIGURE 1B

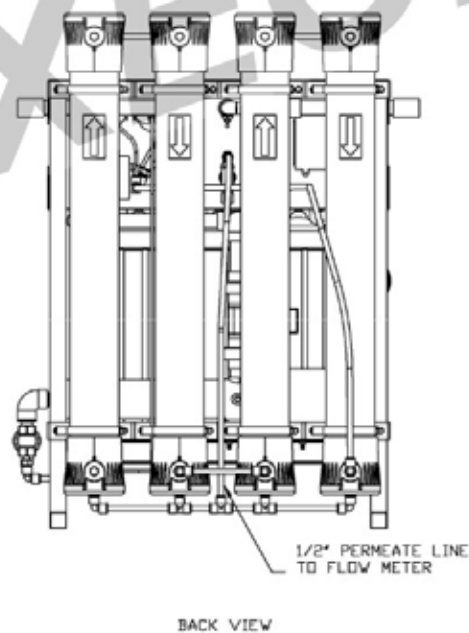
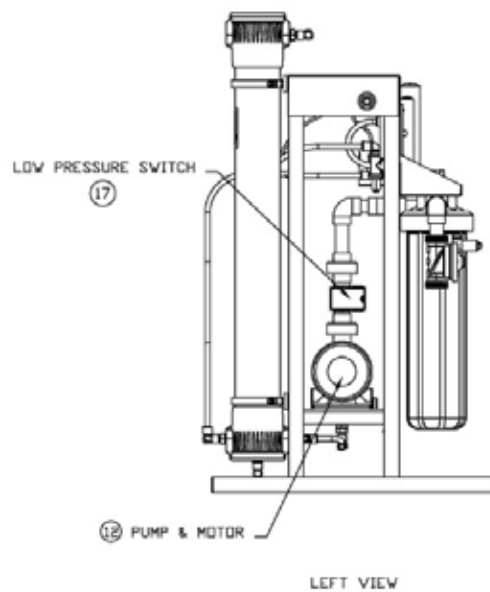
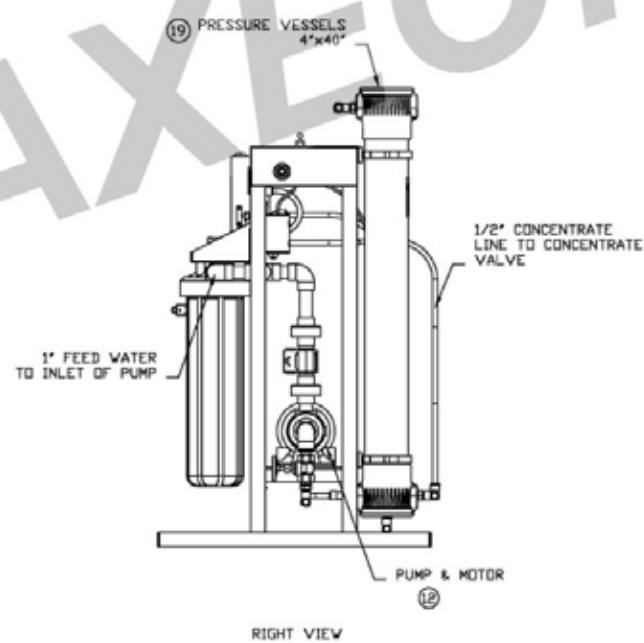
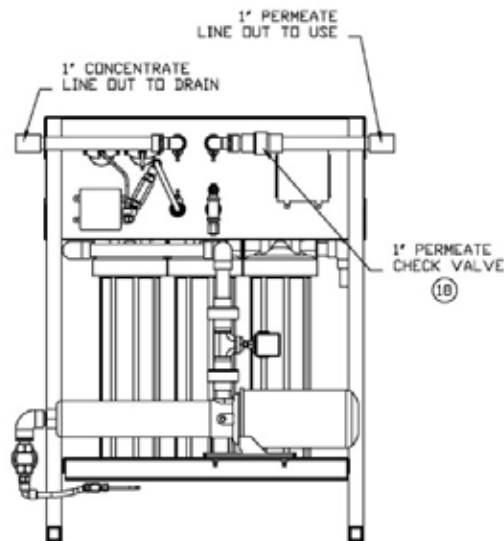


FIGURE 1C

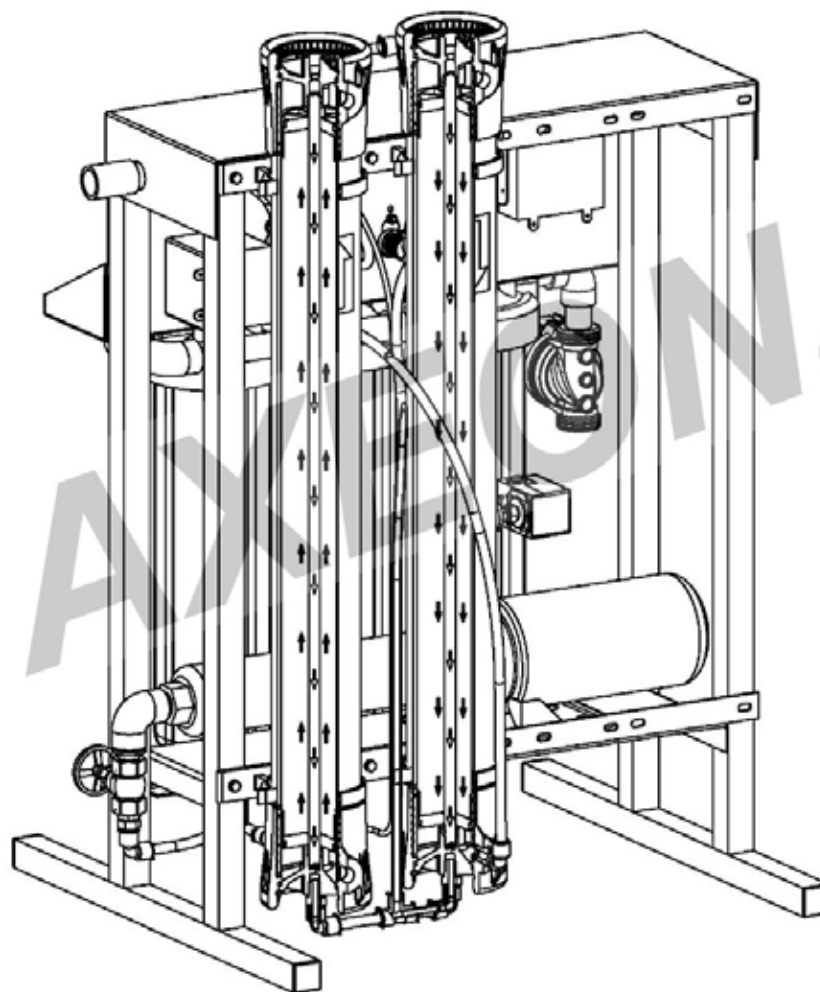
**FIGURE 1D****FIGURE 1E**



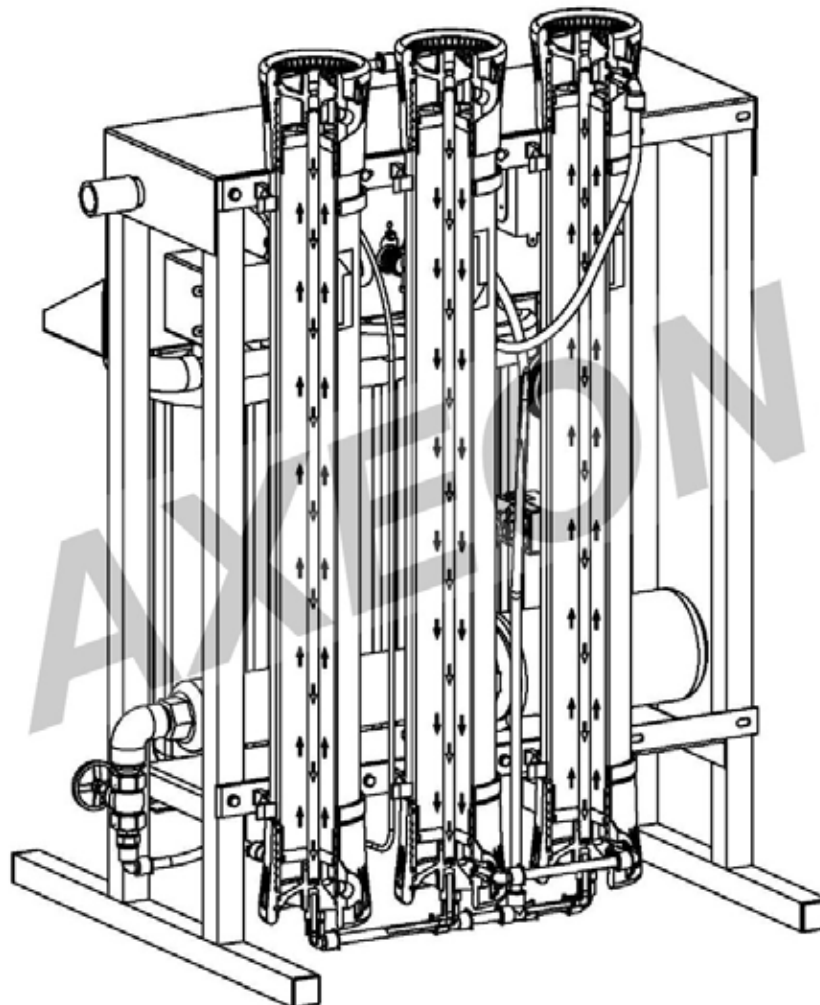
BACK CUTAWAY VIEW

FIGURE 1F

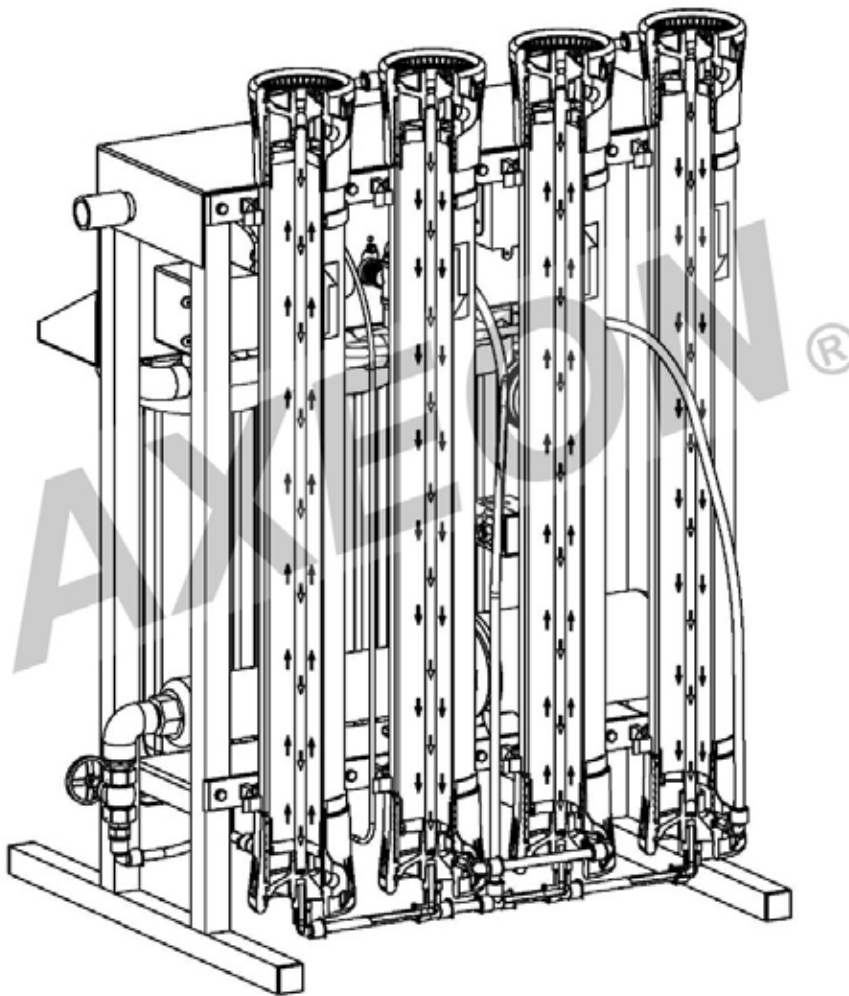
Note: A portion of the frame has been removed to expose components.

CT-4000 MEMBRANE FLOW DIAGRAM**FIGURE 1G**

Note: Black arrows represent concentrate water and white arrows represent permeate water.

CT-5000 MEMBRANE FLOW DIAGRAM**FIGURE 1H**

Note: Black arrows represent concentrate water and white arrows represent permeate water.

CT-7000 MEMBRANE FLOW DIAGRAM**FIGURE 11**

Note: Black arrows represent concentrate water and white arrows represent permeate water.

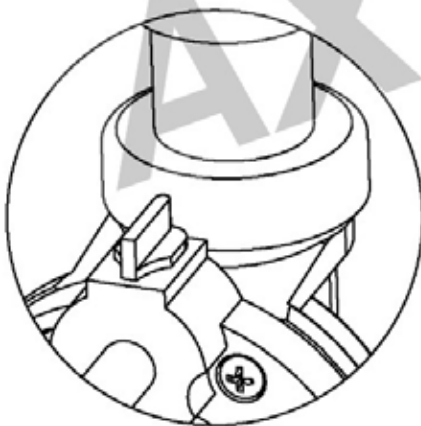
SYSTEM PURGING

Carefully inspect your system before initial start-up. Check that all plumbing and electrical connections are not loose or have not come undone during shipment. A user's manual, test results, and filter housing wrench will accompany your CT-Series reverse osmosis system.

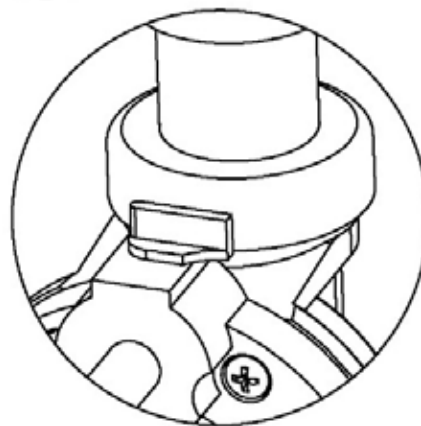


NOTE: LEAVE THE POWER TO THE SYSTEM OFF FOR THIS PROCEDURE.

1. Redirect permeate water to the drain for this procedure.
2. Fully open the concentrate valve #11 (counter clockwise). (Figure 1B, Page 17)
3. Fully close the recycle valve # 10 (clockwise) (if applicable). (Figure 1B, Page 17)
4. Offset the position of the bypass white lever on the solenoid valve #1. (Figure 2, Page 23)
5. Turn the feed water on and let the system purge until no visible bubbles appear from concentrate flow meter #15. (Figure 1B, Page 17)
6. Fully open the throttle valve #13 (counter clockwise). (Figure 1B, Page 17)



Lever Inline
Operating Position



Lever Offset
Bypass Position

FIGURE 2

INITIAL START-UP

1. Keep the permeate water line to drain for this procedure.
2. Fully open the concentrate valve #11 (counter clockwise). (Figure 1B, Page 17)
3. Fully close the recycle valve # 10(clockwise)(if applicable). (Figure 1B, Page 17)
4. Fully open the throttle valve #13 (counter clockwise). (Figure 1B, Page 17)
5. Return position of the bypass white lever inline on the solenoid valve #1. (Figure 2, Page 23)
6. Turn the RO system on #9 and adjust the concentrate (waste) valve #11, recycle valve # 10 (if applicable), and the throttle valve to the designed flow and pressure. (Figure 3, Page 28)
7. Inspect the system for leaks.
8. Allow the system to run for one hour to flush the preservative solution from the system.
9. After one hour, shut down the system.
10. Re-direct the permeate water back to the tank and then turn the system back on.
11. Record the readings daily for a week and after a week record the readings once a week.



Adjust the pump throttle valve and concentrate valve until the correct flow is achieved. For example, CT-4000 should be adjusted until it produces about 4000 GPD or 2.77 GPM of permeate (product water) at 77°F. Design flow might be achieved below 150 PSI.

$$\text{GPM} = \text{GPD}/1440$$

Example:

$$2.77 = 4000/1440$$

DESIGN BASIS FOR CT-4000, CT-5000, CT-7000**Specifications**

Models	CT - 4000	CT - 5000	CT - 7000
Design			
Configuration	Single Pass	Single Pass	Single Pass
Feed Water Source***	TDS <2000 ppm	TDS <2000 ppm	TDS <2000 ppm
Standard Recovery Rate†	48%	53%	62%
Recovery with Concentrate Recycle	Up to 75%	Up to 75%	Up to 75%
Rejection and Flow Rates			
Nominal Salt Rejection %	98.5	98.5	98.5
Permeate Flow* gpm (lpm)	2.78 (10.52)	3.47 (13.14)	4.86 (18.40)
Minimum Feed Flow gpm (lpm)	5.78 (21.00)	6.47 (24.50)	7.86 (29.80)
Maximum Feed Flow gpm (lpm)	14.00 (53.00)	14.00 (53.00)	14.00 (53.00)
Minimum Concentrate Flow gpm (lpm)	3.00 (11.36)	3.00 (11.36)	3.00 (11.36)
Connections			
Feed inch	1 FNPT	1 FNPT	1 FNPT
Permeate inch	1 FNPT	1 FNPT	1 FNPT
Concentrate inch	1 FNPT	1 FNPT	1 FNPT
Membranes			
Membrane(s) Per Vessel	1	1	1
Membrane Quantity	2	3	4
Membrane Size	4040	4040	4040
Vessels			
Vessel Array	1:1	1:1:1	1:1:1:1
Vessel Quantity	2	3	4
Pumps			
Pump Type	Multi-Stage	Multi-Stage	Multi-Stage
Motor HP	1.5	1.5	1.5
RPM @ 60 (50 Hz)	3450 (2900)	3450 (2900)	3450 (2900)
Electrical			
Standard Voltage	220V, 60HZ, 1PH, 8.3A	220V, 60HZ, 1PH, 8.3A	220V, 60HZ, 1PH, 8.3A
Voltage Options	220V, 50HZ, 1PH, 8.9A	220V, 50HZ, 1PH, 8.9A	220V, 50HZ, 1PH, 8.9A
	220V, 60HZ, 3PH, 5.1A	220V, 60HZ, 3PH, 5.1A	220V, 60HZ, 3PH, 5.1A
	220V, 50HZ, 3PH, 6.1A	220V, 50HZ, 3PH, 6.1A	220V, 50HZ, 3PH, 6.1A
	380V, 50HZ, 3PH, 4.5A	380V, 50HZ, 3PH, 4.5A	380V, 50HZ, 3PH, 4.5A
	460V, 60HZ, 3PH, 3.5A	460V, 60HZ, 3PH, 3.5A	460V, 60HZ, 3PH, 3.5A
Systems Dimensions **			
L x W x H inch (cm)	30 x 38 x 47 (76 x 96 x 119)	30 x 38 x 47 (76 x 96 x 119)	30 x 38 x 47 (76 x 96 x 119)
Weight lb. (kg)	235 (106.6)	250 (113.4)	265 (120.2)

* Product Flow rates and recovery are based on equipment test parameters.

** Does not include operating space requirements.

*** Treatment ability of the RO system is dependent on feed water quality. Performance projections must be run for each installation.



WARNING: NEVER EXCEED THE MAXIMUM PRESSURE RATING OF YOUR SYSTEM.

OPERATING DO's AND DON'Ts

DO:

- Change the cartridge filters regularly
- Monitor the system and keep a daily log
- Run the system as much as possible on a continuous basis.
- Adjust the system recovery to the recommended value
- Always feed the pump with filtered water.

DON'T

- Permit chlorine to enter or be present in the feed water.
- Shut down the system for extended periods.
- Close the throttle valve completely.
- Operate the system with insufficient feed flow.
- Operate the pump dry.

OPERATION AND MAINTENANCE

The reverse osmosis process causes the concentration of impurities. The impurities may precipitate (come out of solution) when their concentration reaches saturation levels.



NOTE: PRECIPITATION CAN SCALE OR FOUL MEMBRANES AND MUST BE PREVENTED.

Check your feed water chemistry and pre-treat the water and/or reduce the system's recovery as required. If necessary, consult with your local dealer or distributor.

PRE-FILTER PRESSURE GAUGES

These gauges measure the feed water pressure when it enters and exits the pre-filters. A pressure differential of 10 - 15 psi or more on the two pressure gauges indicates that the pre-filters require servicing. For example, if the inlet pressure is 40 psi, the filter should be changed when the outlet pressure is 30 psi or below.

PERMEATE (PRODUCT) FLOW METER & CONCENTRATE (WASTE) FLOW METER

These flow meters indicate the flow rates of the permeate and concentrate water. The measurements, when added together, also indicate the feed water flow rate or (total flow rate); if the system is not equipped with a concentrate recycle valve.



CAUTION: EXCESSIVE RECYCLING MAY CAUSE PREMATURE FOULING OR SCALING OF THE MEMBRANE ELEMENTS.

LOW PRESSURE SWITCH

The low pressure switch shuts off the system when the feed water pressure drops below 15 PSI, preventing damage to the pump. The system restarts automatically when there is a constant pressure of 35 PSI or more.



If you notice the pressure fluctuating, and the system cycling off and on, turn the system off and ensure that proper feed flow and pressure are available to the system.

PUMP THROTTLE VALVE

This valve is installed as a standard feature on the CT-Series reverse osmosis systems. It provides an adjustment for pump pressure, which will vary as the required system pressure changes. As the feed water temperature decreases, and/or the feed water TDS increases, the system will require a higher operating pressure to produce the specified permeate flow. A CT system installed in Florida may provide the specified permeate flow of 2.77 gpm at 100 psi; however the same system installed in Maine –

much colder feed water – may require 150 psi to produce the same amount of permeate. **Never exceed 150 psi.**

Example:

$$98.5\% = [(550 - 8.25) / 550] \times 100$$

$$\% \text{ Rejection} = (\text{Feed TDS} - \text{Product TDS}) / (\text{Feed TDS}) \times 100$$

ADJUSTING THE THROTTLE VALVE

To decrease the pressure, turn the handle clockwise. To increase the pressure, turn the handle counter clockwise. (Figure 3, Page 28)



FIGURE 3

MEMBRANE REMOVAL AND REPLACEMENT

Replacing membranes in the pressure vessels is an easy process if you have the proper information and tools at hand. Please refer to the following instructions when removing and replacing membrane elements:



WARNING: ALL PRESSURE GAUGES MUST READ ZERO BEFORE PROCEEDING. BEFORE ATTEMPTING, DISCONNECT THE POWER FROM THE SYSTEM AND BLEED ALL WATER PRESSURE FROM THE SYSTEM.

1. Remove the end caps from the top of the membrane housings. This is done by removing the white snap ring of the membrane housing.
2. Remove the membrane bag containing the membrane element from the shipping box.



WEAR GLOVES FOR THE FOLLOWING STEPS IN ORDER NOT TO CONTAMINATE THE MEMBRANE.

3. Cut the bag open as close as possible to the seal at the end of the bag, so the bag may be re-used if necessary.
4. Make sure that all parts are clean and free from dirt. Examine the brine seal and permeate tube for nicks or cuts. Replace the O-rings or brine seal if damaged.
5. Flow directions should be observed for installation of each element into each housing. (Figure 4, Page 31)

As time progresses, the efficiency of the membrane will be reduced. In general, the salt rejection does not change significantly until two or three years after installation when operated on properly pretreated feed water. The permeate flow rate will begin to decline slightly after one year of operation, but can be extended with diligent flushing and cleaning of the system. A high pH and/or precipitation of hardness can cause premature loss in rejection.

REPLACING THE MEMBRANE ELEMENT:

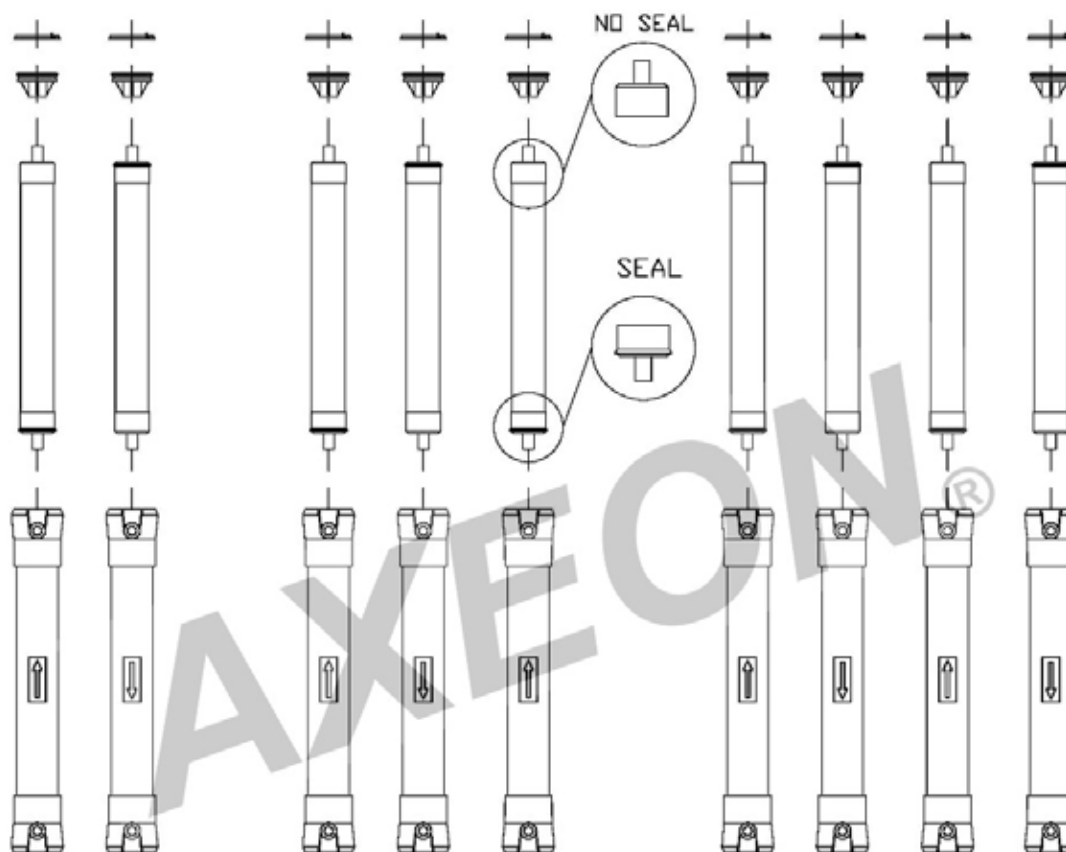


WARNING: THE BRINE SEAL MUST BE IN THE SAME POSITION FOR EACH MEMBRANE ELEMENT HOUSING, SO MARK EACH HOUSING PRIOR TO REMOVING THE MEMBRANE ELEMENTS. THE BRINE SEAL IS A RUBBER SEAL THAT PROTRUDES ON ONE SIDE OF THE MEMBRANE AND IS ALWAYS ON THE FEED SIDE OF THE MEMBRANE ELEMENT.

1. Remove one membrane element at a time from the membrane element housings, from the top of the housing. Long nose pliers may be necessary to pull the old membrane element out of the membrane element housing.
2. Lubricate the brine seal with non petroleum based lubricant, Silicone DC 111.
3. Install the brine seal side of the membrane element first (Figure 4, Page 31). When the housings have a direction of flow from bottom to top, the brine seal should be located at the bottom of the housing.
4. At a slight angle, insert the membrane while slightly rotating the element being careful not to tear or flip the brine seal. A slow twisting motion should be used to insert the membrane element, to ensure the brine seal stays in place. Re-lube the brine seal if necessary.
5. With a smooth and constant motion, push the membrane element into the housing so the brine seal enters the housing without coming out of the brine seal groove.
6. Re-install the end caps by gently twisting the end cap while pushing it onto the housing. Ensure that you do not pinch or fatigue any O-rings while re-installing the end plug. Push the end plug on until the outer diameter of the plug is flush with the outer diameter of the membrane housing.
7. Insert the snap ring until it is fully seated. Install the locking clip if available.
8. Reconnect any fittings that may have been disconnected when the membrane element housings were disassembled.
9. To Start-Up the system, please refer to the Initial Start-Up section of this manual. (See Page 24)



CAUTION: WET MEMBRANES ARE SHIPPED IN A PRESERVATIVE SOLUTION. THE MEMBRANES MUST BE FLUSHED FOR AT LEAST 1 HOUR TO REMOVE THE PRESERVATIVE FROM THE MEMBRANE. DISCARD ALL OF THE PERMEATE AND CONCENTRATE, WHICH IS PRODUCED DURING THE FLUSH PERIOD.

**FIGURE 4**

View from the back of CT-4000, CT-5000, and CT-7000 reverse osmosis system.

FLUSHING THE SYSTEM

The system should be flushed weekly to remove sediment from the surface of the membranes. To manually flush the system, follow the preceding steps:

1. The system must be operating during the flush procedure.
2. Fully open the concentrate valve. (Figure 1B, Page 17)
3. Allow the system to run for 10 to 20 minutes.
4. After 10 to 20 minutes, close the concentrate valve to its previous setting. Ensure the proper concentrate flow rate is going to the drain.
5. The system is now ready to operate.

PREPARING UNIT FOR STORAGE OR SHIPMENT



Prior to shipping or storing your system, the system should be cleaned with an appropriate cleaner, flushed with water and protected from biological attack with an appropriate solution for membrane elements. The membrane housing(s) and plumbing lines of the system must be completely drained. Any water remaining in the plumbing of a system may freeze, causing serious damage.

Preparing system for storage:

1. Totally immerse the elements in the membrane housing in a solution of 2 % Memstor, venting the air outside of the pressure vessels. Use the overflow technique: circulate the Memstor solution in such a way that the remaining air in the system is minimized after the recirculation is completed. After the pressure vessel is filled, the Memstor solution should be allowed to overflow through an opening located higher than the upper end of the highest pressure vessel being filled.
2. Separate the preservation solution from the air outside by closing all valves. Any contact with oxygen will oxidize the Memstor.
3. Check the pH once a week. When the pH becomes 3 or lower, change the preservation solution.
4. Repeat this process at least once a month.

During the shutdown period, the plant must be kept frost-free, or the temperature must not exceed 113°F (45°C).

Preparing unit for shipment:

5. Disconnect the inlet, concentrate, pre-filter, and permeate plumbing.
6. Drain all water from the pre-filter cartridge housings by unscrewing the housings, removing the pre-filter cartridges, and drain the water from the housings.
7. Disconnect the tubing from the connectors on the permeate and concentrate inlets and outlets.
8. Fully open the concentrate valve.
9. Drain the flow meters.
10. Allow the system to drain for a minimum of eight hours or until the opened ports quit dripping.
11. After draining is complete, reconnect all of the plumbing.

AXEON®

REVERSE OSMOSIS TROUBLESHOOTING

SYMPTOMS	POSSIBLE CAUSES	CORRECTIVE ACTION
Low Inlet Pressure	Low supply pressure	Increase inlet pressure
	Cartridge filters plugged	Change filters
	Solenoid valve malfunction	Replace sol. valve and/or coil
	Motor may not be drawing correct current	Use clamp-on amp meter to check the motor amp draw.
	Concentrate valve might be damaged	Replace needle valve
	Leaks	Fix any visible leaks
Low Permeate Flow	Low inlet flow	Adjust concentrate valve
	Cold feed water	See temperature correction sheet
	Low operating pressure	See low inlet pressure
	Defective membrane brine seal	Inspect and/or replace brine seal
	Fouled or scaled membrane	Clean membranes
High permeate flow	Damaged product tube o-rings	Inspect and/or replace
	Damaged or oxidized membrane	Replace membrane
	Exceeding maximum feed water temperature	See temperature correction sheet
Poor permeate quality	Low operating pressure	See low inlet pressure
	Damage product tube o-rings	Inspect and/or replace
	Damaged or oxidized membrane	Replace membrane
Membrane fouling	Metal Oxide Fouling	Improve pretreatment to remove metals. Clean with acid cleaners.
	Colloidal Fouling	Optimize pretreatment for colloid removal. Clean with high pH anionic cleaners.
	Scaling (CaSO ₄ , CaSO ₃ , BaSO ₄ , SiO ₂)	Increase acid addition and antiscalant dosage for CaVO ₃ and CaCO ₄ . Reduce recovery. Clean with acid cleaners
	Biological Fouling	Shock dosage of Sodium Bi-Sulfate. Continuous feed of Sodium Bi-Sulfate at reduced pH. Chlorination and de-chlorination. Replace cartridge filters.
	Organic Fouling	Activated Carbon or other pretreatment. Clean with high pH cleaner.
	Chlorine Oxidation	Check Chlorine feed equipment and de-chlorination system.
	Abrasion of membrane by Crystalline Material	Improve pretreatment. Check all filters for media leakage.

ABNORMAL PERMEATE FLOW

Permeate flow should be within 20% of the rated production, after correcting the feed water temperatures above or below 77°F. Check your permeate flow meter to determine the permeate flow rate.



NOTE: TO DETERMINE THE TEMPERATURE CORRECTION FACTOR, LOCATE THE TEMPERATURE CORRECTION TABLE IN THIS USER'S MANUAL AND FOLLOW THE DIRECTIONS

AXEON®

TEMPERATURE CORRECTION FACTORS FOR MEMBRANE

Find the temperature correction factor (TCF) from the table below. Divide the rated permeate flow at 77°F by the temperature correction factor. The result is the permeate flow at the desired temperature. (See example on the next page)

Temperature °F (°C)	Temperature Correction Factor	Temperature °F (°C)	Temperature Correction Factor	Temperature °F (°C)	Temperature Correction Factor	Temperature °F (°C)	Temperature Correction Factor	Temperature °F (°C)	Temperature Correction Factor
50.0 (10.0)	1.711	57.2 (14.0)	1.475	64.4 (18.0)	1.276	71.6 (22.0)	1.109	78.8 (26.0)	0.971
50.2 (10.1)	1.705	57.4 (14.1)	1.469	64.6 (18.1)	1.272	71.8 (22.1)	1.105	79.0 (26.1)	0.968
50.4 (10.2)	1.698	57.6 (14.2)	1.464	64.8 (18.2)	1.267	72.0 (22.2)	1.101	79.2 (26.2)	0.965
50.5 (10.3)	1.692	57.7 (14.3)	1.459	64.9 (18.3)	1.262	72.1 (22.3)	1.097	79.3 (26.3)	0.962
50.7 (10.4)	1.686	57.9 (14.4)	1.453	65.1 (18.4)	1.258	72.3 (22.4)	1.093	79.5 (26.4)	0.959
50.9 (10.5)	1.679	58.1 (14.5)	1.448	65.3 (18.5)	1.254	72.5 (22.5)	1.090	79.7 (26.5)	0.957
51.1 (10.6)	1.673	58.3 (14.6)	1.443	65.5 (18.6)	1.249	72.7 (22.6)	1.086	79.9 (26.6)	0.954
51.3 (10.7)	1.667	58.5 (14.7)	1.437	65.7 (18.7)	1.245	72.9 (22.7)	1.082	80.1 (26.7)	0.951
51.4 (10.8)	1.660	58.6 (14.8)	1.432	65.8 (18.8)	1.240	73.0 (22.8)	1.078	80.2 (26.8)	0.948
51.6 (10.9)	1.654	58.8 (14.9)	1.427	66.0 (18.9)	1.236	73.2 (22.9)	1.075	80.4 (26.9)	0.945
51.8 (11.0)	1.648	59.0 (15.0)	1.422	66.2 (19.0)	1.232	73.4 (23.0)	1.071	80.6 (27.0)	0.943
52.0 (11.1)	1.642	59.2 (15.1)	1.417	66.4 (19.1)	1.227	73.6 (23.1)	1.067	80.8 (27.1)	0.940
52.2 (11.2)	1.636	59.4 (15.2)	1.411	66.6 (19.2)	1.223	73.8 (23.2)	1.064	81.0 (27.2)	0.937
52.3 (11.3)	1.630	59.5 (15.3)	1.406	66.7 (19.3)	1.219	73.9 (23.3)	1.060	81.1 (27.3)	0.934
52.5 (11.4)	1.624	59.7 (15.4)	1.401	66.9 (19.4)	1.214	74.1 (23.4)	1.056	81.3 (27.4)	0.932
52.7 (11.5)	1.618	59.9 (15.5)	1.396	67.1 (19.5)	1.210	74.3 (23.5)	1.053	81.5 (27.5)	0.929
52.9 (11.6)	1.611	60.1 (15.6)	1.391	67.3 (19.6)	1.206	74.5 (23.6)	1.049	81.7 (27.6)	0.926
53.1 (11.7)	1.605	60.3 (15.7)	1.386	67.5 (19.7)	1.201	74.7 (23.7)	1.045	81.9 (27.7)	0.924
53.2 (11.8)	1.600	60.4 (15.8)	1.381	67.6 (19.8)	1.197	74.8 (23.8)	1.042	82.0 (27.8)	0.921
53.4 (11.9)	1.594	60.6 (15.9)	1.376	67.8 (19.9)	1.193	75.0 (23.9)	1.038	82.2 (27.9)	0.918
53.6 (12.0)	1.588	60.8 (16.0)	1.371	68.0 (20.0)	1.189	75.2 (24.0)	1.035	82.4 (28.0)	0.915
53.8 (12.1)	1.582	61.0 (16.1)	1.366	68.2 (20.1)	1.185	75.4 (24.1)	1.031	82.6 (28.1)	0.913
54.0 (12.2)	1.576	61.2 (16.2)	1.361	68.4 (20.2)	1.180	75.6 (24.2)	1.028	82.8 (28.2)	0.910
54.1 (12.3)	1.570	61.3 (16.3)	1.356	68.5 (20.3)	1.176	75.7 (24.3)	1.024	82.9 (28.3)	0.908
54.3 (12.4)	1.564	61.5 (16.4)	1.351	68.7 (20.4)	1.172	75.9 (24.4)	1.021	83.1 (28.4)	0.905
54.5 (12.5)	1.558	61.7 (16.5)	1.347	68.9 (20.5)	1.168	76.1 (24.5)	1.017	83.3 (28.5)	0.902
54.7 (12.6)	1.553	61.9 (16.6)	1.342	69.1 (20.6)	1.164	76.3 (24.6)	1.014	83.5 (28.6)	0.900
54.9 (12.7)	1.547	62.1 (16.7)	1.337	69.3 (20.7)	1.160	76.5 (24.7)	1.010	83.7 (28.7)	0.897
55.0 (12.8)	1.541	62.2 (16.8)	1.332	69.4 (20.8)	1.156	76.6 (24.8)	1.007	83.8 (28.8)	0.894
55.2 (12.9)	1.536	62.4 (16.9)	1.327	69.6 (20.9)	1.152	76.8 (24.9)	1.003	84.0 (28.9)	0.892
55.4 (13.0)	1.530	62.6 (17.0)	1.323	69.8 (21.0)	1.148	77.0 (25.0)	1.000	84.2 (29.0)	0.889
55.6 (13.1)	1.524	62.8 (17.1)	1.318	70.0 (21.1)	1.144	77.2 (25.1)	0.997	84.4 (29.1)	0.887
55.8 (13.2)	1.519	63.0 (17.2)	1.313	70.2 (21.2)	1.140	77.4 (25.2)	0.994	84.6 (29.2)	0.884
55.9 (13.3)	1.513	63.1 (17.3)	1.308	70.3 (21.3)	1.136	77.5 (25.3)	0.991	84.7 (29.3)	0.882
56.1 (13.4)	1.508	63.3 (17.4)	1.304	70.5 (21.4)	1.132	77.7 (25.4)	0.988	84.9 (29.4)	0.879
56.3 (13.5)	1.502	63.5 (17.5)	1.299	70.7 (21.5)	1.128	77.9 (25.5)	0.985	85.1 (29.5)	0.877
56.5 (13.6)	1.496	63.7 (17.6)	1.294	70.9 (21.6)	1.124	78.1 (25.6)	0.982	85.3 (29.6)	0.874
56.7 (13.7)	1.491	63.9 (17.7)	1.290	71.1 (21.7)	1.120	78.3 (25.7)	0.979	85.5 (29.7)	0.871
56.8 (13.8)	1.486	64.0 (17.8)	1.285	71.2 (21.8)	1.116	78.4 (25.8)	0.977	85.6 (29.8)	0.869
57.0 (13.9)	1.480	64.2 (17.9)	1.281	71.4 (21.9)	1.112	78.6 (25.9)	0.974	85.8 (29.9)	0.866

°F = (°C x 9/5) + 32

Corrected Flow Rate = (Measured Flow Rate) * [TCF @ Feed Water Temp.]

If a system is rated to produce 5 gpm of permeate water @ 77° F, the same system will produce more water at a higher temperature. It will also produce less water at a lower temperature. Use the temperature correction table to obtain the correct flow.

Example:

5 gpm @ 59° F ($5 + 1.42 = 3.52$ gpm)

5 gpm @ 77° F ($5 + 1 = 5$ gpm)

5 gpm @ 84° F ($5 + 0.89 = 5.62$ gpm)

SERVICE ASSISTANCE

If service assistance is required, please complete the following process:
Contact your local dealer or distributor. Prior to making the call, have the following information available: system installation date, serial number, daily log sheets, current operating parameters (e.g. flow, operating pressures, pH, etc.) and a detailed description of the problem.

OPERATION

Company:	_____	Date of Start-Up:	_____
Location:	_____	Date of Last Cleaning:	_____
Week Of:	_____		
System Serial #:	_____		

Date					
Time					
Hour of Operation					
Filter inlet pressure (psi)					
Filter outlet Pressure (psi)					
Concentrate Pressure (psi)					
Pump Discharge Pressure (psi)					
Feed Flow (gpm)					
Permeate Flow (gpm)					
Concentrate Flow (gpm)					
Recovery %					
Feed Temperature					
Feed TDS (ppm)					
Permeate TDS (ppm)					
Rejection %					
Feed PH					
Permeate PH					
Scale Inhibitor Feed (ppm)					
Iron (mg/L)					
Free Chlorine (mg/L)					
Hardness (gpg CaCO3)					

DRAWINGS

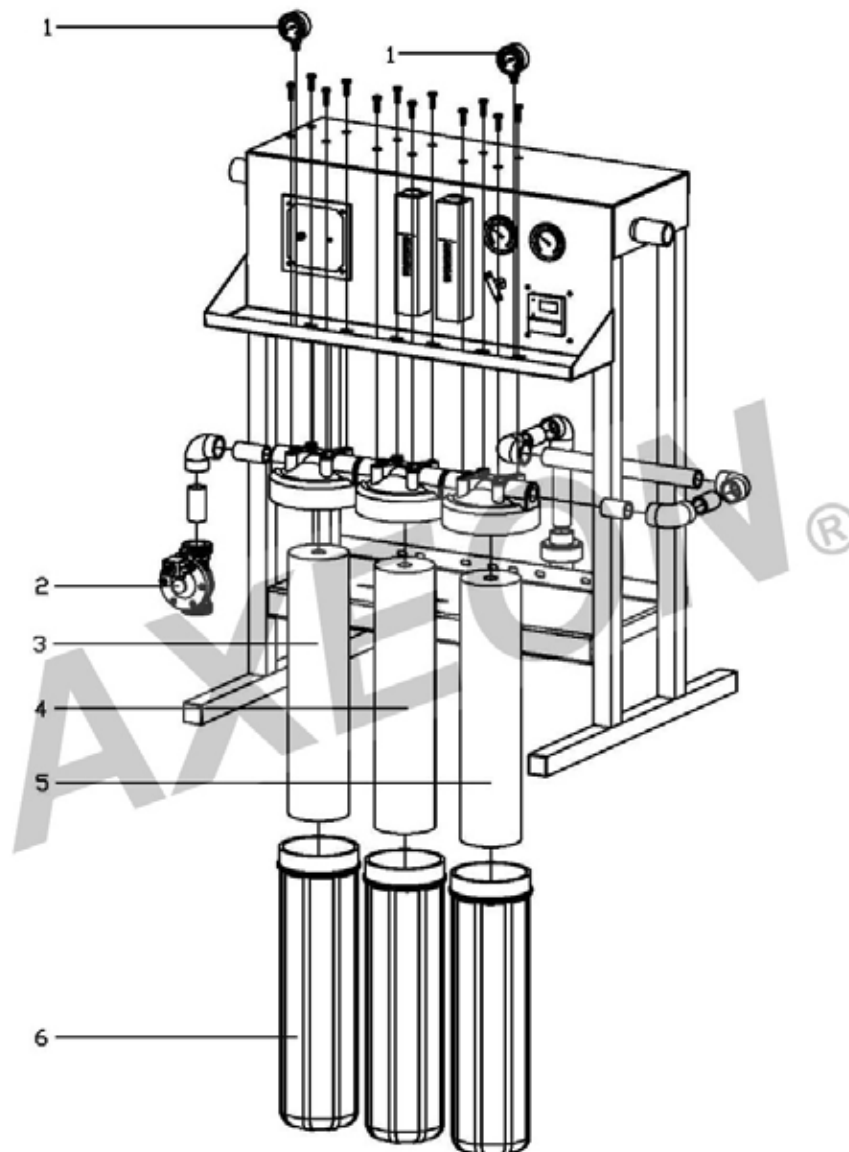
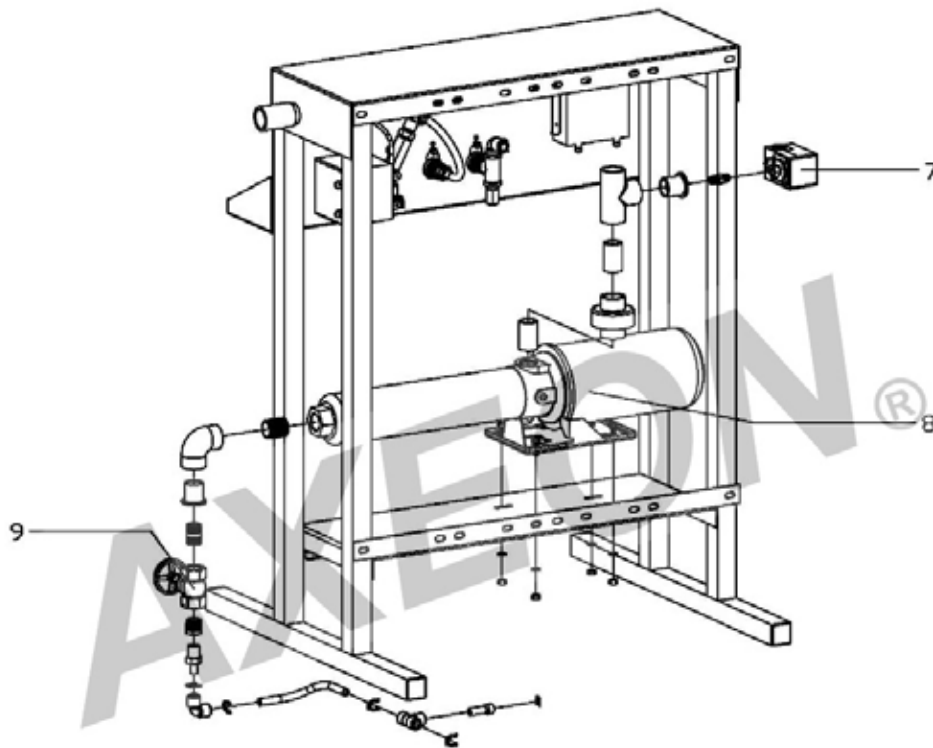


FIGURE 5

**FIGURE 6**

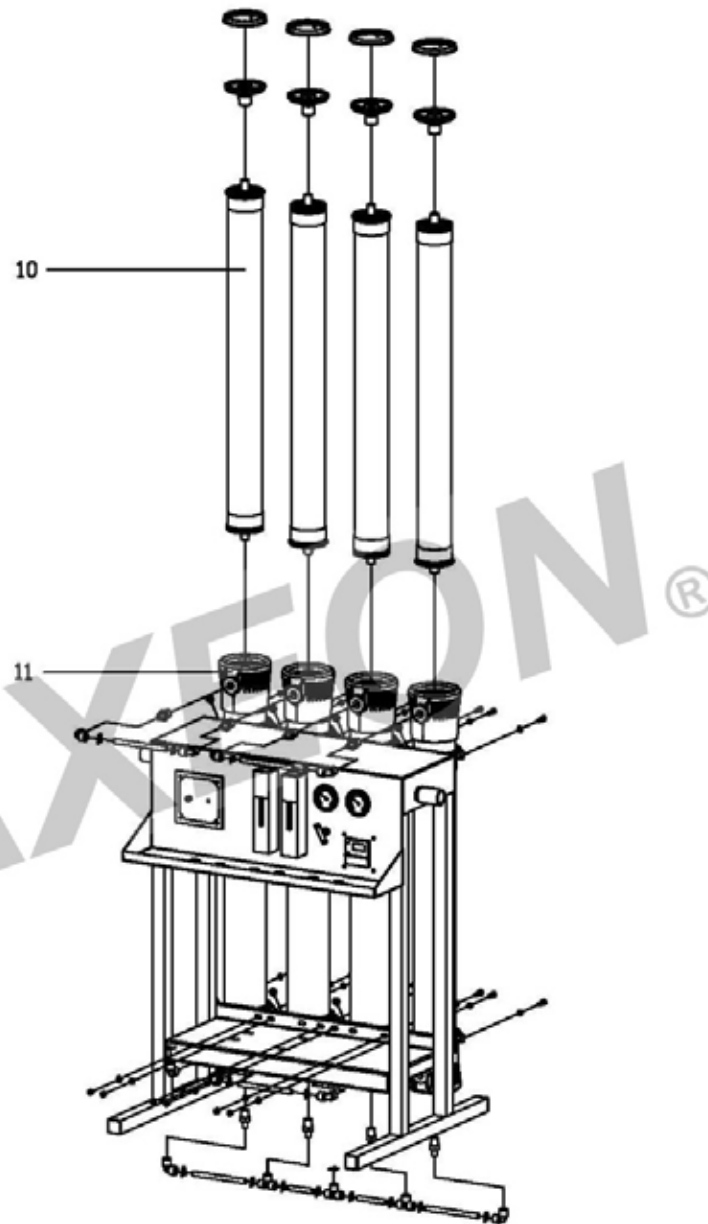


FIGURE 7

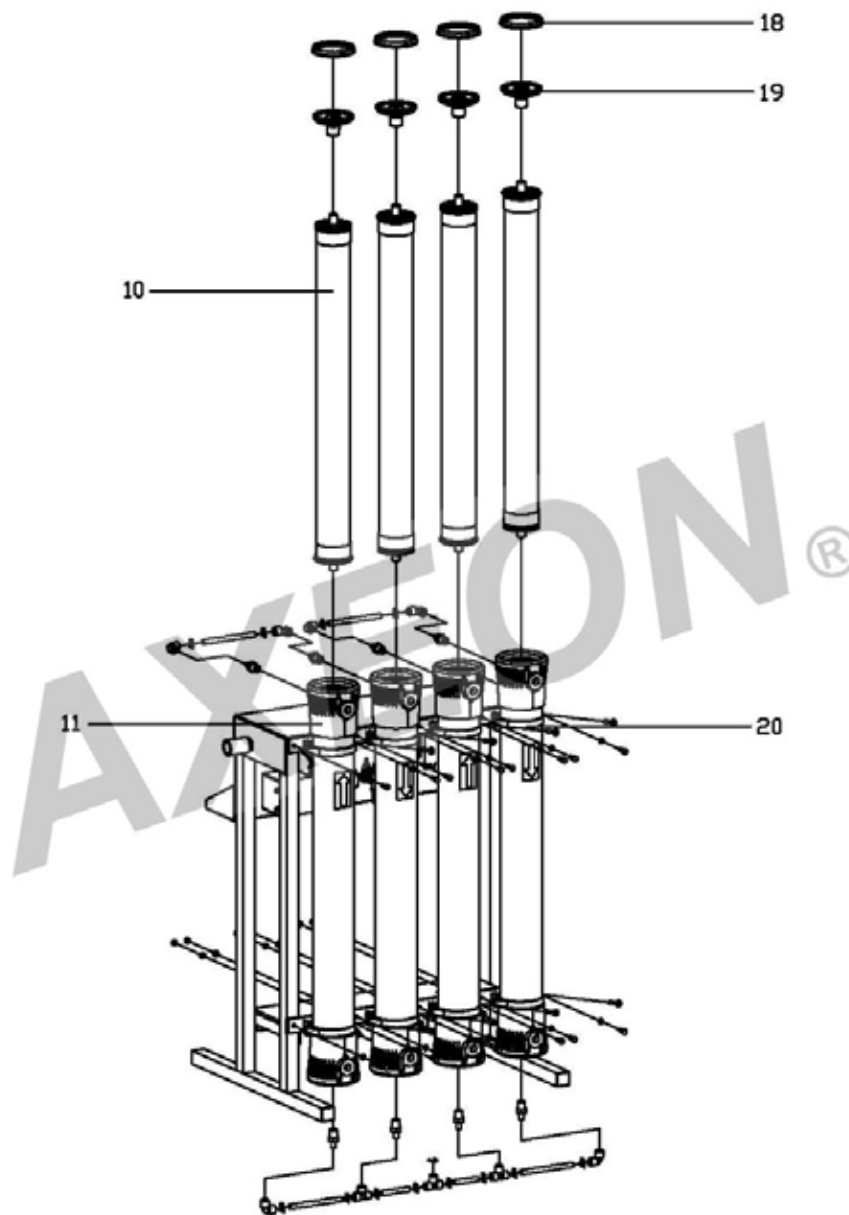
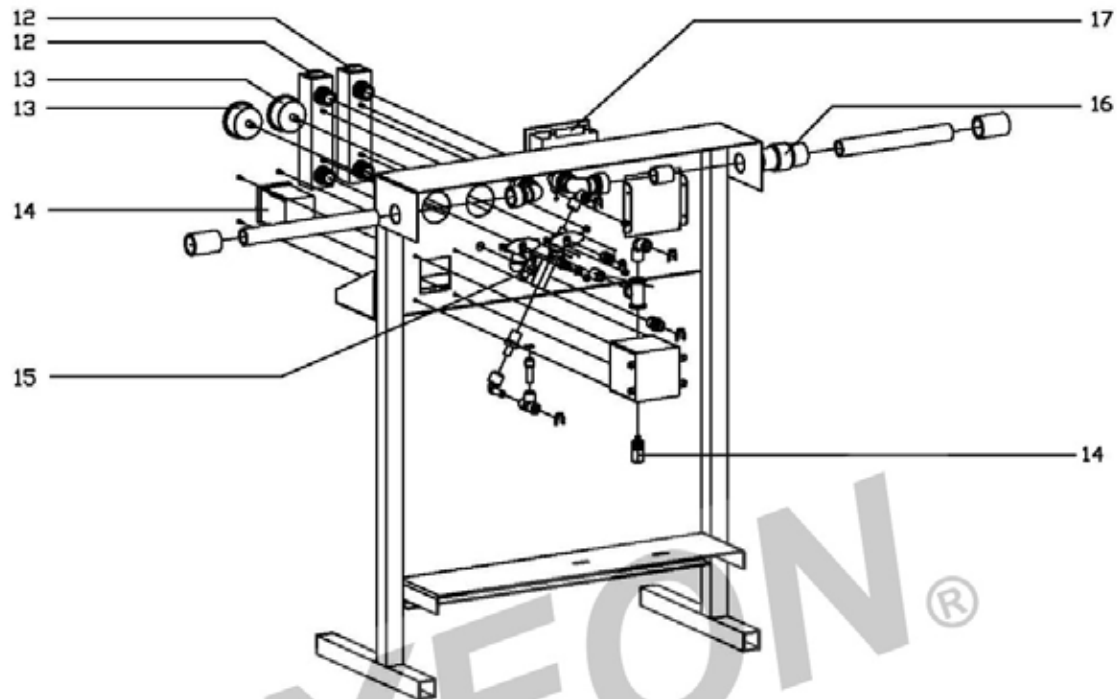


FIGURE 8



Note: A portion of the frame has been removed to expose components.

FIGURE 9

CT-4000 SYSTEM PART LIST

Item No.	Qty.	Part No.	Description
1.....	2.....	200901.....	GAUGE, BTM, NO FILL, 0-100PSI/BAR, 2" DIA
2.....	1.....	204914.....	VALVE, SOLENOID, N/C, UL, 220V, 1" FNPT
3.....	1.....	200640.....	CART, SEDIMENT, POLYPRO, 4.5"x 20", 5 MIC
4.....	1.....	200663.....	CARTRIDGE, CARBON, BLOCK, 4.5"x 20", 10 MIC
5.....	1.....	200639.....	CART, SEDIMENT, POLYPRO, 4.5"x 20", 1 MIC
6.....	3.....	203649.....	HOUSING, FILTER, BLK/BLU, 4.5"x 20", 1" FNPT
7.....	1.....	200906.....	SWITCH, PRESSURE, LOW, N/O 15-30, 1/4" FNPT
8.....	1.....	200789.....	PUMP, MULTI-STAGE, 1.5HP, 110/220V 1PH
9.....	1.....	200994.....	VALVE, GLOBE, SS, 3/4" FNPT
10.....	4.....	200379.....	MEM, HF1, 4040, SYSTEMS
11.....	4.....	200527.....	MHS, PVC, 4040, 1/2"x 1/2" SP FNPT, SYSTEMS
12.....	2.....	200899.....	METER, FLOW, PM, 0-10GPM, 1"x 1" MNPT
13.....	2.....	200904.....	GAUGE, BKM, FILL, 0-300 PSI/BAR, 2.5" DIA
14.....	1.....	200877.....	CONTROLLER, TDS, PANEL MNT, PS-100, HM DIG
15.....	1.....	201006.....	VALVE, NEEDLE, SS 316L, 1/2" FNPT
16.....	1.....	200967.....	VALVE, CHECK, PVC, 1"x 1" FNPT
17.....	1.....	200857.....	CONT, COMPUTER, MINITROL, 110/220V, 1PH
18.....	4.....	200598.....	SNAP RING, DELRIN, 4"
19.....	2.....	200597.....	END PLUG, CLOSED, GTX, 4", 1/2" FNPT
19.....	2.....	200596.....	END PLUG, OPEN, GTX, 4", 1/2" FNPT
20.....	4.....	200588.....	CLAMP, SADDLE, NYLON, BLK, 4", PVC/FRP

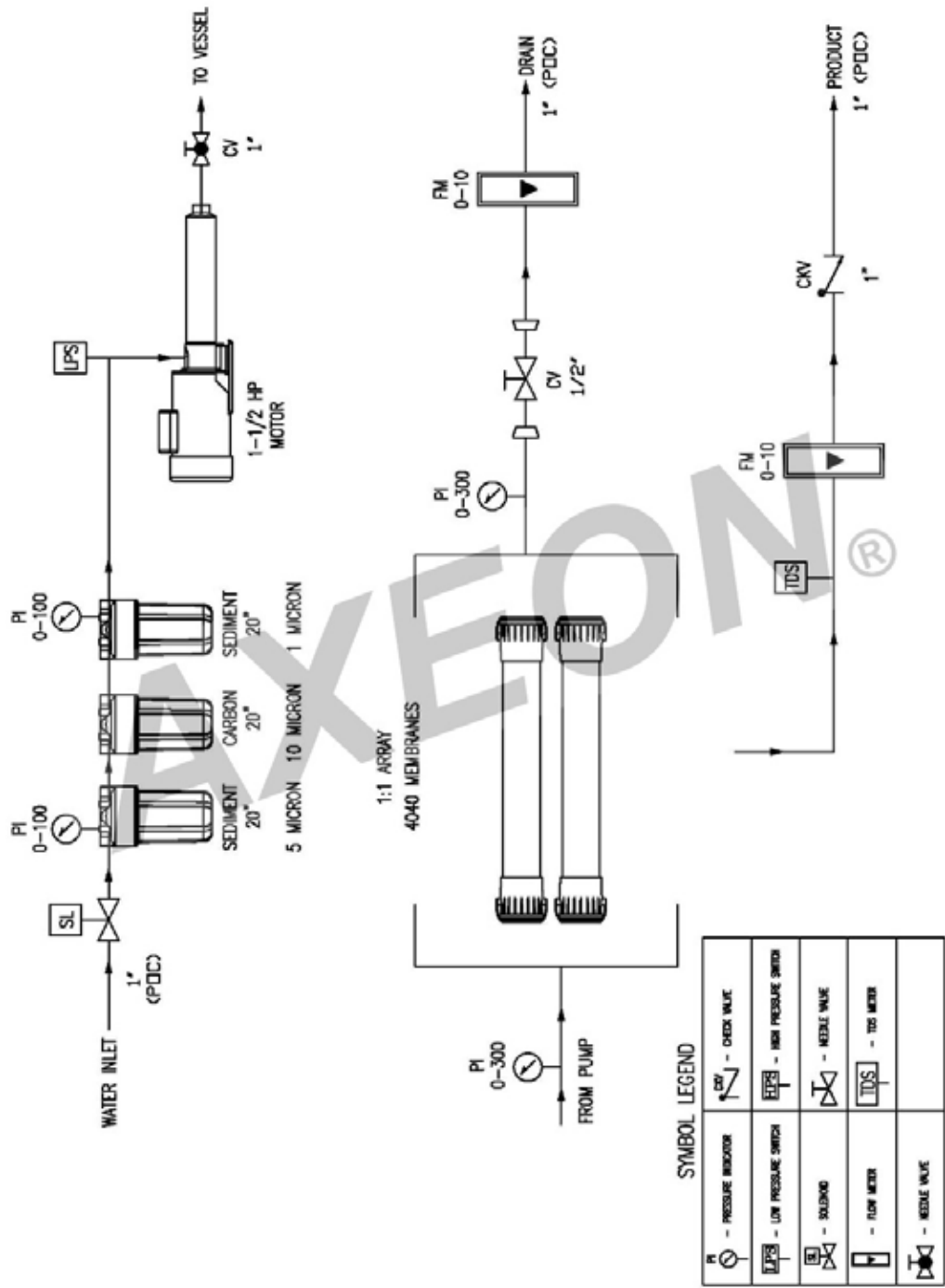
CT-5000 SYSTEM PART LIST

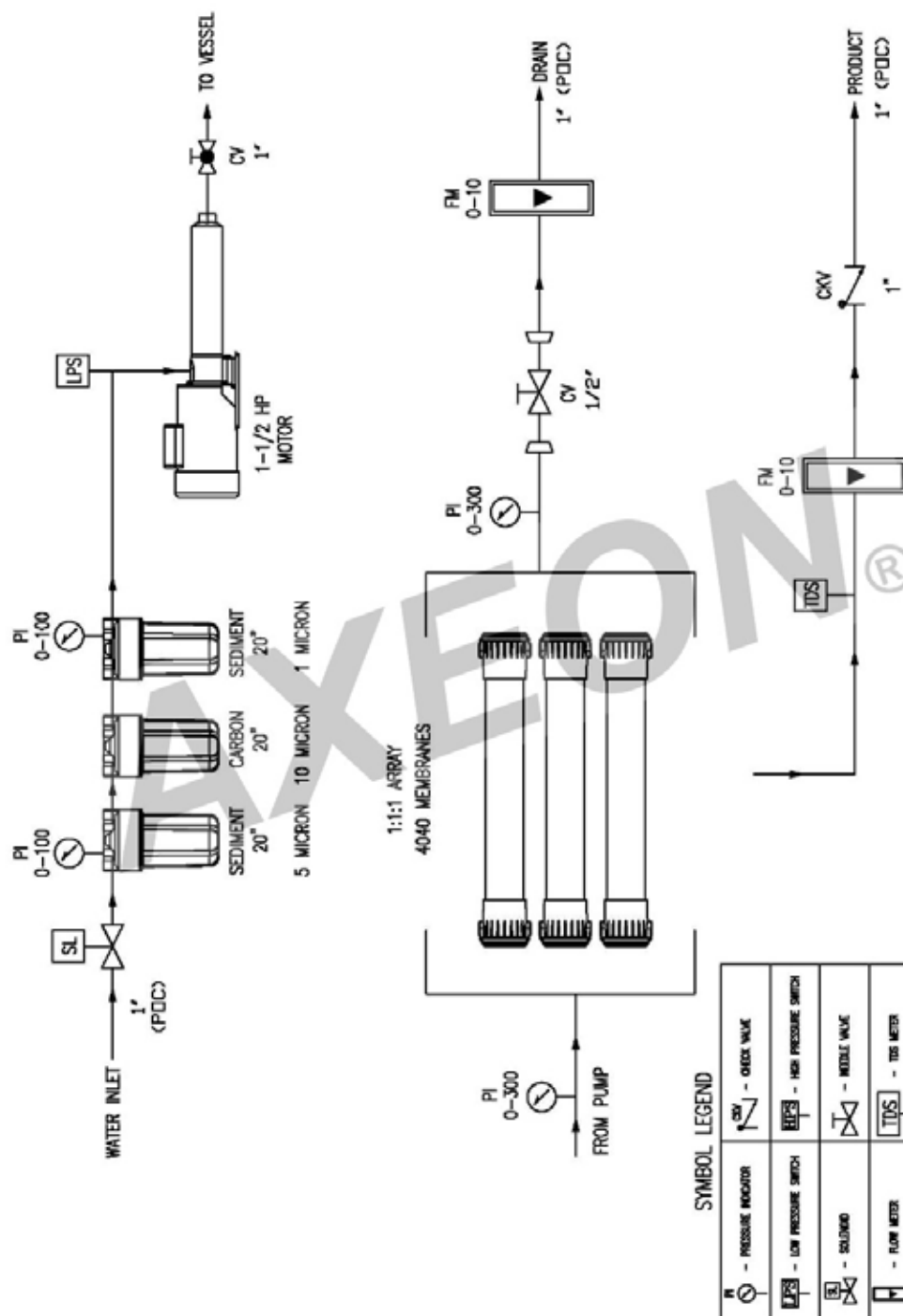
Item No.	Qty.	Part No.	Description
1.....	2.....	200901.....	GAUGE, BTM, NO FILL, 0-100PSI/BAR, 2" DIA
2.....	1.....	204914.....	VALVE, SOLENOID, N/C, UL, 220V, 1" FNPT
3.....	1.....	200640.....	CART, SEDIMENT, POLYPRO, 4.5"x 20", 5 MIC
4.....	1.....	200663.....	CARTRIDGE, CARBON, BLOCK, 4.5"x 20", 10 MIC
5.....	1.....	200639.....	CART, SEDIMENT, POLYPRO, 4.5"x 20", 1 MIC
6.....	3.....	203649.....	HOUSING, FILTER, BLK/BLU, 4.5"x 20", 1" FNPT
7.....	1.....	200906.....	SWITCH, PRESSURE, LOW, N/O 15-30, 1/4" FNPT
8.....	1.....	200789.....	PUMP, MULTI-STAGE, 1.5HP, 110/220V 1PH
9.....	1.....	200994.....	VALVE, GLOBE, SS, 3/4" FNPT
10.....	4.....	200379.....	MEM, HF1, 4040, SYSTEMS
11.....	4.....	200527.....	MHS, PVC, 4040, 1/2"x 1/2" SP FNPT, SYSTEMS
12.....	2.....	200899.....	METER, FLOW, PM, 0-10GPM, 1"x 1" MNPT
13.....	2.....	200904.....	GAUGE, BKM, FILL, 0-300 PSI/BAR, 2.5" DIA
14.....	1.....	200877.....	CONTROLLER, TDS, PANEL MNT, PS-100, HM DIG
15.....	1.....	201006.....	VALVE, NEEDLE, SS 316L, 1/2" FNPT
16.....	1.....	200967.....	VALVE, CHECK, PVC, 1"x 1" FNPT
17.....	1.....	200857.....	CONT, COMPUTER, MINITROL, 110/220V, 1PH
18.....	6.....	200598.....	SNAP RING, DELRIN, 4"
19.....	3.....	200597.....	END PLUG, CLOSED, GTX, 4", 1/2" FNPT
19.....	3.....	200596.....	END PLUG, OPEN, GTX, 4", 1/2" FNPT
20.....	6.....	200588.....	CLAMP, SADDLE, NYLON, BLK, 4", PVC/FRP

CT-7000 SYSTEM PART LIST

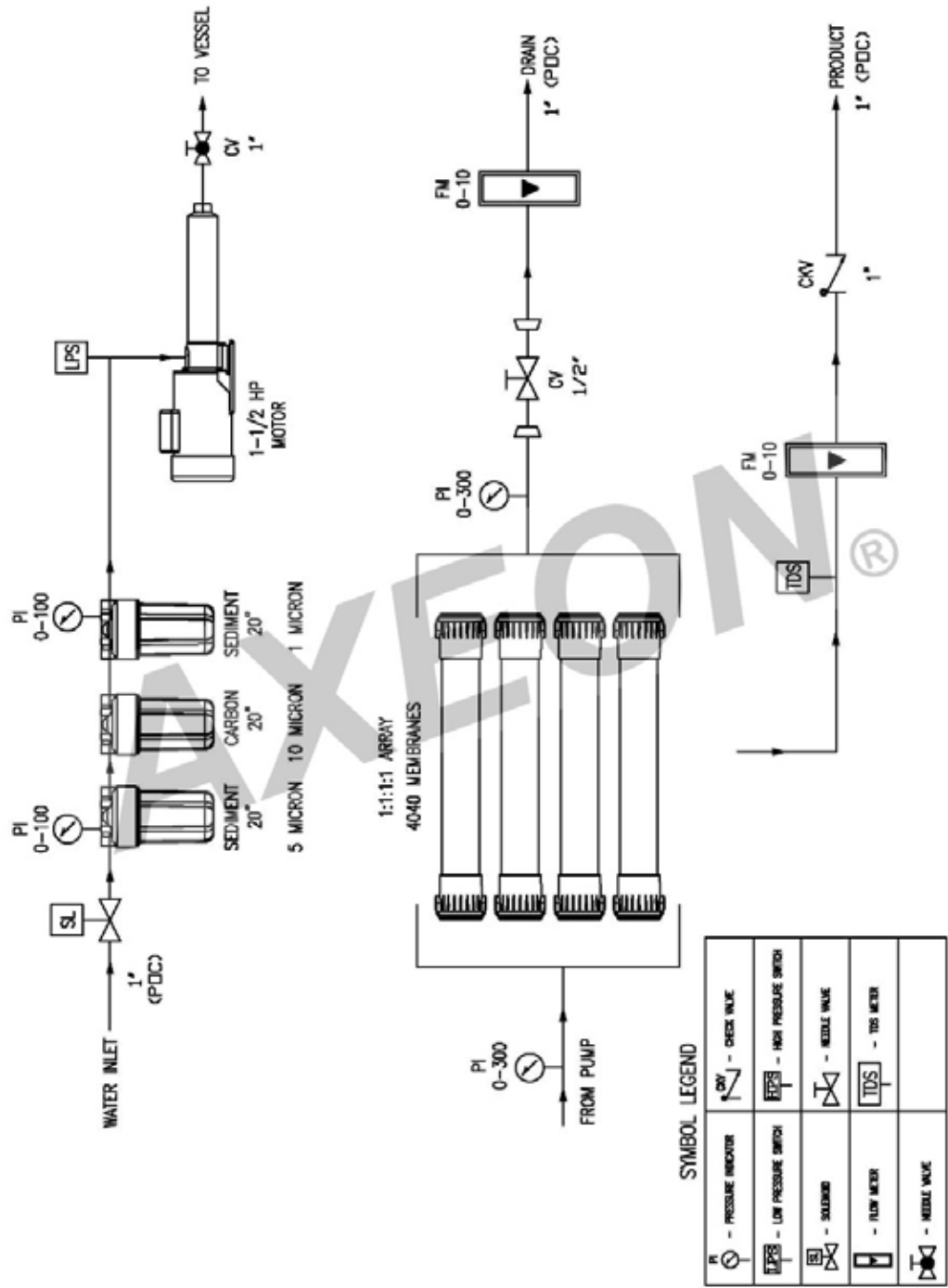
Item No.	Qty.	Part No.	Description
1.....	2.....	200901.....	GAUGE, BTM, NO FILL, 0-100PSI/BAR, 2" DIA
2.....	1.....	204914.....	VALVE, SOLENOID, N/C, UL, 220V, 1" FNPT
3.....	1.....	200640.....	CART, SEDIMENT, POLYPRO, 4.5"x 20", 5 MIC
4.....	1.....	200663.....	CARTRIDGE, CARBON, BLOCK, 4.5"x 20", 10 MIC
5.....	1.....	200639.....	CART, SEDIMENT, POLYPRO, 4.5"x 20", 1 MIC
6.....	3.....	203649.....	HOUSING, FILTER, BLK/BLU, 4.5"x 20", 1" FNPT
7.....	1.....	200906.....	SWITCH, PRESSURE, LOW, N/O 15-30, 1/4" FNPT
8.....	1.....	200789.....	PUMP, MULTI-STAGE, 1.5HP, 110/220V 1PH
9.....	1.....	200994.....	VALVE, GLOBE, SS, 3/4" FNPT
10.....	4.....	200379.....	MEM, HF1, 4040, SYSTEMS
11.....	4.....	200527.....	MHS, PVC, 4040, 1/2"x 1/2" SP FNPT, SYSTEMS
12.....	2.....	200899.....	METER, FLOW, PM, 0-10GPM, 1"x 1" MNPT
13.....	2.....	200904.....	GAUGE, BKM, FILL, 0-300 PSI/BAR, 2.5" DIA
14.....	1.....	200877.....	CONTROLLER, TDS, PANEL MNT, PS-100, HM DIG
15.....	1.....	201006.....	VALVE, NEEDLE, SS 316L, 1/2" FNPT
16.....	1.....	200967.....	VALVE, CHECK, PVC, 1"x 1" FNPT
17.....	1.....	200857.....	CONT, COMPUTER, MINITROL, 110/220V, 1PH
18.....	8.....	200598.....	SNAP RING, DELRIN, 4"
19.....	4.....	200597.....	END PLUG, CLOSED, GTX, 4", 1/2" FNPT
19.....	4.....	200596.....	END PLUG, OPEN, GTX, 4", 1/2" FNPT
20.....	6.....	200588.....	CLAMP, SADDLE, NYLON, BLK, 4", PVC/FRP

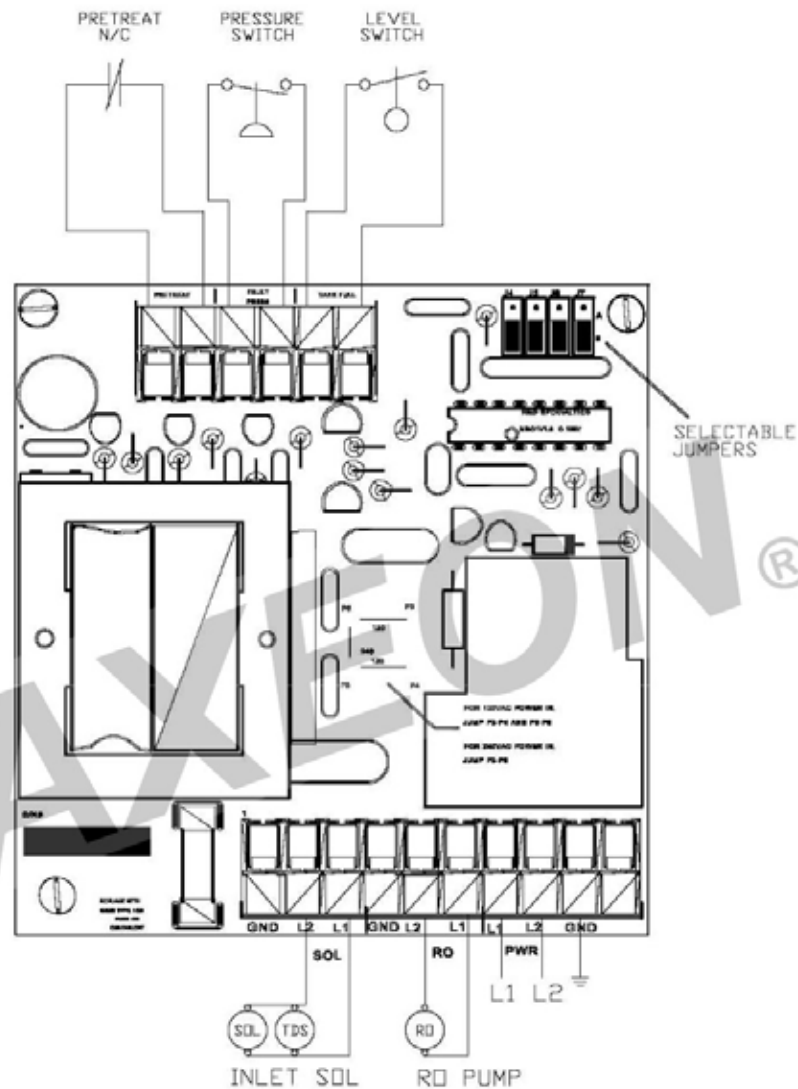
CT-4000 FLOW DIAGRAM





CT-7000 FLOW DIAGRAM



110/220V 50/60 Hz 1 PHASE ELECTRICAL SCHEMATIC
Minitrol

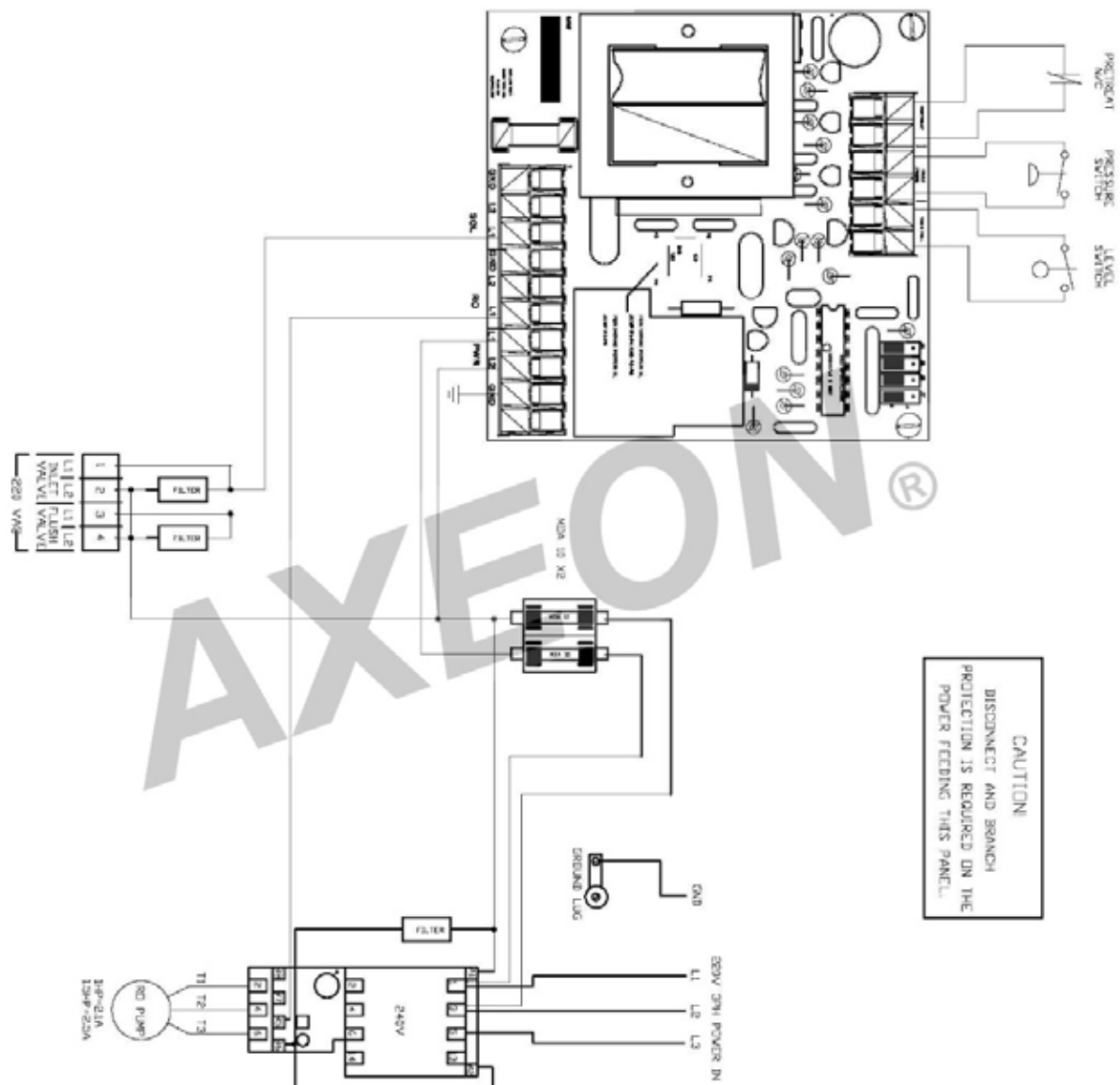
JUMPER	POSITION B	POSITION A
J4	AUTO RESET DISABLED	* AUTO RESET ENABLED
J5	RETRIES DISABLED	* RETRIES ENABLED
J6	* 2 SEC. RESTART	15 MIN. RESTART
J7	N.O. SWITCHES	* N.C. SWITCHES

* = JUMPERS SELECTED

NOTES

ALL SWITCHES MUST BE DRY CONTACT ONLY. IF VOLTAGE IS APPLIED TO THESE INPUTS, DAMAGE TO CONTROLLER WILL RESULT. FOR POWER WITH NEUTRAL AND HOT LEADS, L1 IS HOT AND L2 IS NEUTRAL.

208/220V 50/60 Hz 3 PHASE ELECTRICAL SCHEMATIC
Minitrol



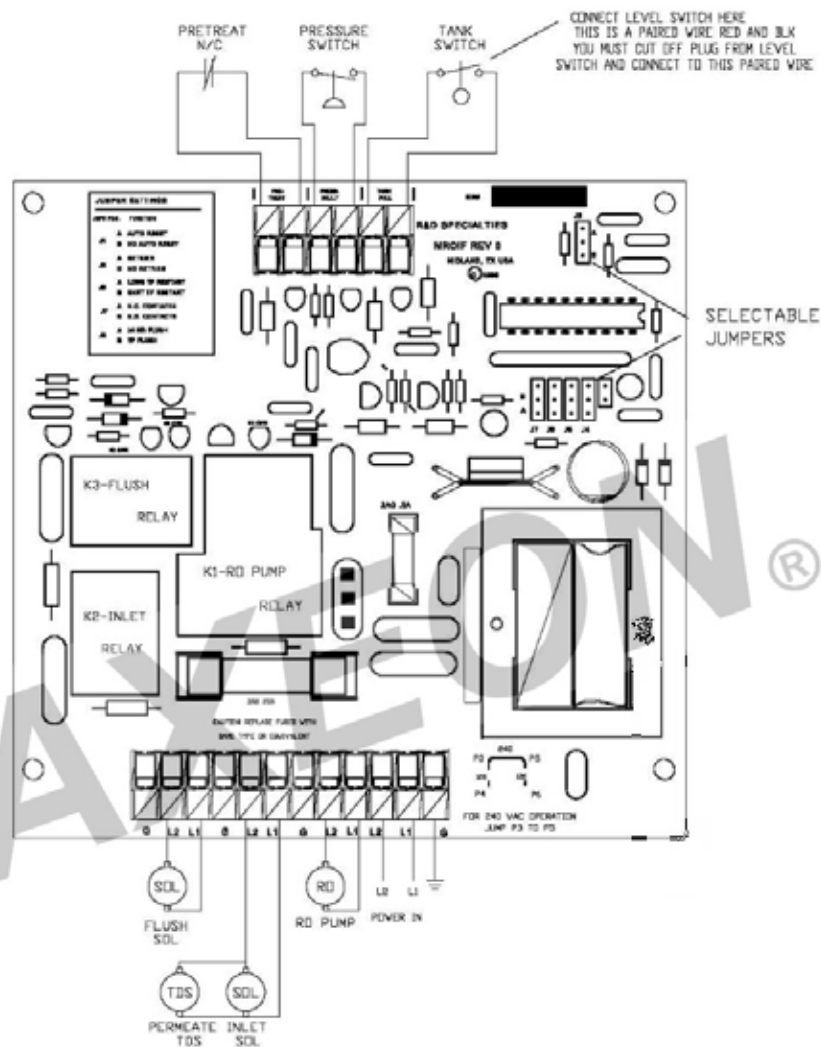
110/220V 50/60 Hz 1 PHASE ELECTRICAL SCHEMATIC
Minitrol IF

TABLE 1

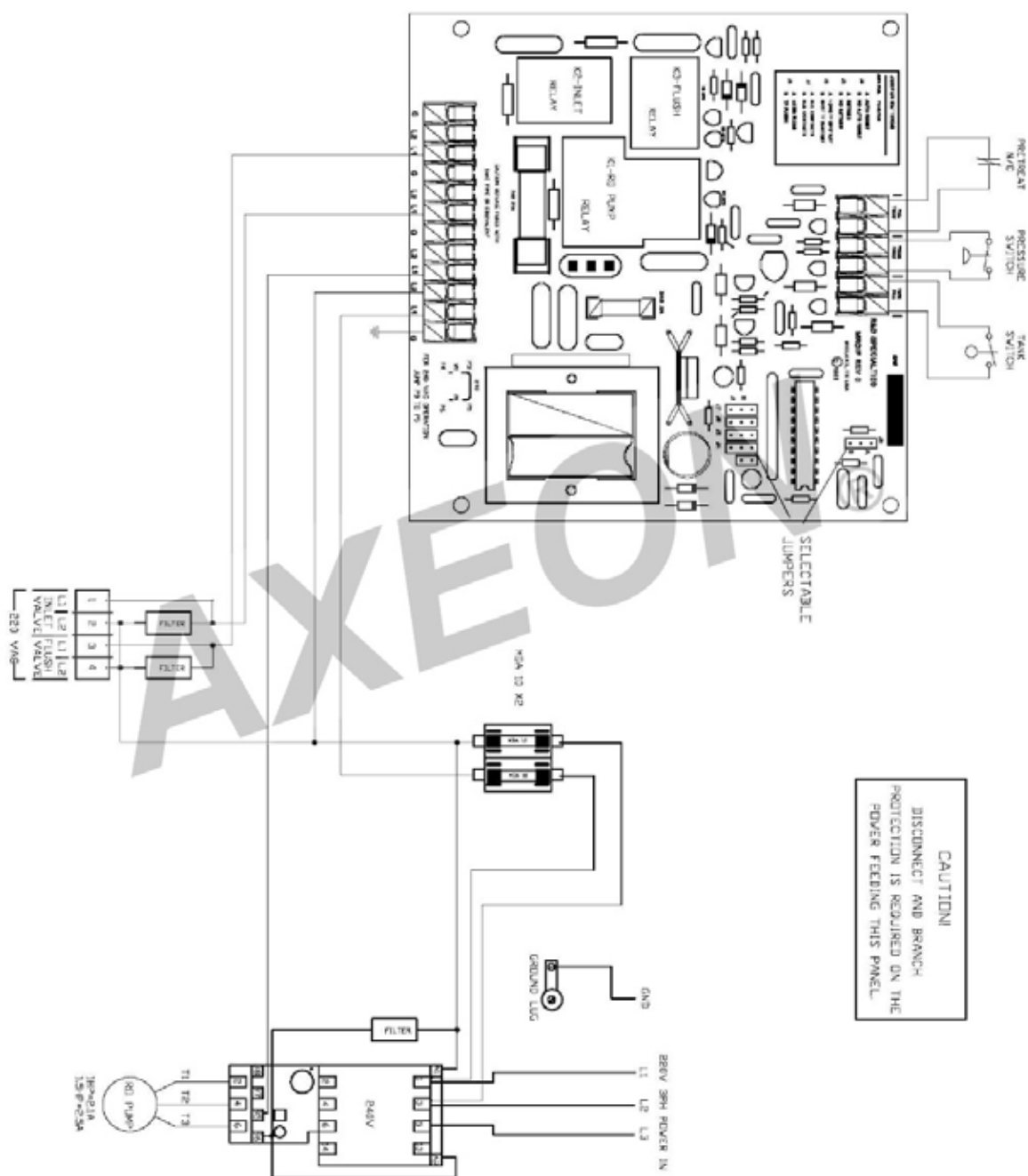
JUMPER	POSITION B	POSITION A
J4	AUTO RESET DISABLED	* AUTO RESET ENABLED
J5	RETRIES DISABLED	* RETRIES ENABLED
J6	* 2 SEC RESTART	15 MIN RESTART
J7	N.O. SWITCHES	* N.C. SWITCHES
J8	TANK FULL FLUSH	* 24 HOUR FLUSH

* = SELECTED JUMPERS

NOTES

ALL SWITCHES MUST BE DRY CONTACT ONLY! IF VOLTAGE IS
APPLIED TO THESE INPUTS, DAMAGE TO CONTROLLER WILL RESULT.
FOR POWER WITH NEUTRAL AND HOT LEADS, L1 IS HOT AND L2 IS NEUTRAL.

208/220V 50/60 Hz 3 PHASE ELECTRICAL SCHEMATIC
Minitrol IF



AXEON®

