

City of Danville

Standard Requirements for
Architectural and Engineering
Agreements

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SECTION 1: GENERAL POLICIES ON ARCHITECTURAL AND ENGINEERING SERVICES

1. LICENSE/REGISTRATION

Entities (e.g. individual, partnership, or corporation) offering to provide architectural and/or engineering services shall be properly registered and licensed in Virginia as required by the Department of Professional and Occupational Regulation (DPOR), Architects, Professional Engineers, Land Surveyors, Certified Interior Designers and Landscape Architects (APELSCIDLA) Board, and, if incorporated, the State Corporation Commission. Professional Corporations must obtain a Certificate of Authority as required by Virginia Code §13.1-549B. Other business entities must register with DPOR as required by Virginia Code §54.1-411, as amended. The Architect or Engineer (i.e. the person) "in responsible charge" for each discipline shall be currently licensed in the Commonwealth of Virginia and shall affix his or her seal to those documents for which he or she is responsible.

2. PROFESSIONAL SERVICES

The architectural, civil, structural, mechanical and electrical portions of the project shall be planned and designed by or under the immediate supervision of a licensed Architect or Engineer who has expertise in the particular discipline involved. Where such licensed expertise is not available within the A/E of record or where the A/E chooses to subcontract a part of the Work, the A/E shall employ an associate or consulting Architectural or Engineering firm with the requisite expertise to provide the required services. The consultants, associates, or subcontractors proposed by the A/E during the selection process to be part of the A/E project team shall perform the Work as proposed. If circumstances require a change, the A/E shall advise the City of the proposed change, the reasons therefore, and the name and qualifications of the proposed replacements. The replacements must be acceptable to the City as evidenced in writing by the Director of Purchasing. Associates, consultants or subcontractors proposed to be part of the A/E's project team shall be contracted by the A/E at the beginning of the Work and shall be active participants in all phases of the Work related to their discipline from beginning to end. The A/E shall be responsible to the City for the Work of all associates, consultants and subcontractors, whether employees of the A/E or not, performed under the Contract.

3. TAXPAYER IDENTIFICATION NUMBER

The A/E shall furnish to the City at the time of contract award its Federal Employer Identification number (FEIN) if a corporation or a partnership or its Social Security Number (SSN) if a sole proprietor.

4. RELATIONSHIP OF ARCHITECT/ENGINEER TO CITY

Once the Contract for A/E services has been fully executed, the A/E shall be the professional advisor and consultant to the City for technical matters related to the project and shall be responsible directly to and only to the City. The City shall communicate all approvals, rejections, change requirements and other similar information to the A/E. The A/E shall advise the City of changes necessary to keep the project within the prescribed area and cost limits. Generally, the City will observe the procedure of issuing orders to

the Contractor through the A/E or, if the A/E's construction period duties have been so modified, through the City's designated project representative. If the City issues orders directly to the Contractor, the A/E shall be copied on such orders.

5. "DESIGN-NOT-TO-EXCEED" COST AS RELATED TO A/E CONTRACT

The City shall provide the A/E with a description of the project including information on functions, proposed site locations, aesthetic requirements, and "Design-not-to-exceed" construction budget which shall be determined during the programming phase of work. The A/E's Contract requires that if the low bid exceeds the "Design-not-to-exceed" cost identified in the A/E Contract by more than 10%, any A/E revisions to the plans and specifications required to bring the cost of the project within the "Design-not-to-exceed" cost will be executed by the A/E at no additional cost to the City. The A/E's cost estimate shall be of a level of detail commensurate with the current level of design. The A/E shall submit a cost estimate with each phase submittal. If the cost estimate indicates a potential problem in securing a bid within the "Design-not-to-exceed" cost, the A/E shall notify the City and shall work with the City to redefine the design concepts of space utilization, building efficiencies, materials of construction, etc., so that the estimated cost of construction does not exceed the "Design-not-to-exceed" cost. This paragraph shall not be enforced if the low bid exceeds the Design-not-to-exceed" construction budget because of an event beyond the Architect's control.

6. CODE AND REGULATORY COMPLIANCE

The A/E is responsible for designing the project and administering the construction phase of the project in accordance with the Virginia Uniform Statewide Building Code (Code) and other regulatory requirements applicable to the project in effect on the date that the last required permit is issued by the City of Danville Inspections Division. Nothing contained herein shall be construed as relieving any A/E, professional design consultant, contractor, supplier or any other participant from any professional or legal responsibility for performance. Reviews, comments and approvals by the City in no way absolve any other person, firm or corporation involved in a project from their full responsibilities under law, codes and professional practice as required in projects for the City. Lack of comment by a City reviewer does not relieve the A/E from designing to meet the Code or applicable state regulations or local regulations related to water, sewer, fire department service, and other utilities. If the correction of a Code or regulatory violation results in a Change Order during construction, any additional costs incurred shall be borne by the party responsible for the violation. The City will bear only the costs attributable to the actual Code or regulation-required enhancement of the project.

7. LIABILITY INSURANCE

The A/E shall carry professional liability insurance covering negligent acts, errors, and omissions. The A/E shall maintain this insurance coverage in force after completion of the services under the contract for a period of five years after final completion of construction or the A/E may purchase a 'completed operations' coverage for the project or projects. The City's review, approval, or acceptance of, nor payment for any of the services required shall be construed to operate as a waiver by the City of any rights or any cause of action arising out of the Contract. The A/E shall be and remain liable to the

City for all costs of any kind which are incurred by the City as a result of negligent acts, errors, or omissions on the part of the A/E including its subcontractors and consultants, in the performance of any of the services furnished.

8. DESIGN ERRORS AND/OR OMISSIONS

The A/E shall be responsible for all costs resulting from its negligent acts; or errors or omissions, and other breaches of the applicable standards of care established under Virginia law including, but not limited to, its own costs for labor and other in-house costs, any resulting Contractor Change Order costs including the costs for demolition, cutting, patching, repairs, removal, or modification of Work that is already in place, any Contractor or City delay damages, and any judgments, fines or penalties against the City resulting from A/E negligent acts; or errors or omissions, and other breaches of the applicable standards of care not to include betterments. However, the A/E shall not be responsible for the cost of the correct equipment or system which should have been originally specified, except the A/E shall be responsible for any increased costs, whether the result of inflation, reordering, restocking or otherwise, of incorporating the corrected Work into the Contractor's Contract Change Order. For the purposes of determining the A/E's share of such costs for Work which has not yet been performed, the cost of Work performed by Contractor's Change Order shall generally be presumed to be 15% greater than if the Work had been included in the Contractor's contract. The A/E shall have the burden of disproving this presumption. When determining the A/E's contribution for Change Orders attributed to negligent acts; or errors or omissions, (where the work has not yet been done by the Contractor), the City should also take into account the actions and efforts of the A/E during the construction phase that were above and beyond the scope of its contract to assist the City in obtaining a timely, quality product.

The City shall actively pursue reimbursement of costs resulting from the A/E's negligent acts; or errors or omissions, or breaches of the applicable standard of care. Upon determination that there may be A/E financial responsibility involved, the A/E shall be contacted by the City. The A/E shall be advised of the design deficiency, informed that it is the City's opinion that the A/E may be financially responsible, and requested to provide a technical solution to the problem, including cost estimate. Upon notification of potential liability, the A/E should coordinate with the City to determine required technical support and timing to minimize delay costs. Pending final decision by the City, the A/E will be invited to attend all price negotiations with the Contractor for the corrective work. The A/E shall participate as a non-voting technical advisor to the City's negotiator. If the A/E refuses to cooperate in the negotiations or disputes its responsibility, the City shall have the right to proceed with the remedial construction and/or change order negotiations without the A/E. All changes to the Contract Document, whether to correct errors or omissions, to accommodate unforeseen or differing site conditions, or City requested changes, must be made and documented by Change Order.

9. RECORDS RETENTION

The A/E shall retain record copies of its design calculations, drawings, bid /contract documents, addenda, field orders, clarifications and responses to Requests For Information, approved shop drawings and submittals, inspection / observation reports,

fiscal records, and other documents relative to the contract for five (5) years after completion of the services under the contract or five years after completion of construction, whichever occurs earlier. Should the A/E cease its business prior to that time, the A/E will provide those project related documents to the City for safe keeping.

10. CITY OWNERSHIP OF DOCUMENTS AND MATERIALS

Ownership of all materials and documentation including the original drawings and the Plans and Specifications and copies of any calculations and analyses prepared pursuant to the Contract between the City and the A/E, shall belong exclusively to the City. These materials and documentation, whether completed or not, shall be the property of the City whether the work for which they are made is executed or not. The A/E shall not use these materials on any other work or release any information about these materials without the express written consent of the City however the A/E has the express right to use the documents prepared for this project, along with photos taken, for marketing purposes. Such material may be subject to public inspection in accordance with the Virginia Freedom of Information Act. Security-related documents and information are excluded from the Act unless a specific need to know can be shown. Trade secrets or proprietary information submitted by a bidder, offeror, or contractor in connection with a procurement transaction shall not be subject to disclosure under the Virginia Freedom of Information Act, provided the bidder, offeror, or contractor invokes the protections of Virginia Code §2.2-4342.F, prior to or upon submission of the data or other materials, identifies the data or materials to be protected and states the reason why the protection is necessary. The A/E shall provide the following documents to the City at the completion of the A/E's work:

- A. Original sealed and signed drawings
- B. Original copy of the specifications
- C. Copy of analyses made for the project
- D. Indexed copy of the available calculations made by each discipline for the project
- E. The City copy of all shop drawings, submittals, cut sheets, operation and maintenance instructions, parts lists, and other material related to the project.

The City, as owner of the documents prepared for its projects, has the right to use the project documents as a prototype to demonstrate scope, size, functional relationships, etc., to an A/E designing a similar project. The A/E for the original project design shall not be responsible or liable to the City for any such use of the documents. The A/E for the similar project shall be responsible for providing a complete set of project and location-specific "Final Documents" with its seals and signatures which meet all applicable codes and standards in effect at the time those "Final Documents" are submitted.

In the event the City uses the instruments of service on another project without retaining the author of the instruments of Service, the City releases the Architect and the Architect's consultants from all claims and causes of action arising from such uses. The City, to the extent permitted by Virginia law, further agrees to indemnify and hold harmless the Architect and its consultant(s) from all costs and expenses, including the cost of defense, related to claims and causes of action asserted by any third person or

entity to the extent such cost and expenses arise from the City's use of the instruments of Service. The terms of this Section shall not apply if the Owner rightfully terminates this agreement for cause.

11. REQUIREMENTS FOR A/E SEALS AND SIGNATURES

A. General

The Seal and Signature of the licensed Professional Engineer, Architect or Certified Landscape Architect on the drawings provides notice to the public the drawings are complete and that the professional has exercised complete direction and control over the work to which the seal or signature is affixed. All plans and specifications for building projects designed for the City and its Agencies must bear the seal and signature of the responsible licensed professional.

1. Each drawing to be reproduced shall show:
 - a. The name of the A/E,
 - b. the Project Title,
 - c. the Project location,
 - d. the Drawing / Sheet Title,
 - e. the Drawing / Sheet number,
 - f. the seal and signature of the responsible licensed professional, and the uniform date of the completed documents.
2. The Title sheet drawing(s) shall also have:
 - a. The Index of Drawings,
 - b. the Project VUSBC data,
 - c. the Seal and Signature of the A/E Principal-In-Charge of the project, and the uniform date of the completed documents. (A/E may also require the seal and signature of a principal of its consultants.)
3. The Specifications Table of Contents shall have:
 - a. The Seal and Signature of the A/E Principal-In-Charge of the project,
 - b. the uniform date of the completed documents, and
 - c. the listing of specification sections included for the project. (A/E may also require the seal and signature of a principal of its consultants.)

B. "Working Drawing Sets"

Working Drawing Sets submitted for review are expected to be complete documents ready for bidding. All drawings except the cover sheet shall bear the seal of the responsible licensed professional. The Cover Sheet shall show a complete list of the drawings in the set, but a seal and signature are not required at this submission.

C. "Final Documents" or "Construction Documents"

"Final Documents" or "Construction Documents" are completed documents ready for bidding and include all corrections required by the review. Each sheet of the drawings reproduced in the bid documents, including the cover sheet, shall bear the seal and

signature of the responsible licensed professional and a uniform document date. The original cover sheet without seal and signature shall be reproduced and attached to copies of the other drawings in the set. Each cover sheet print shall then be sealed, signed and dated with original seals and signatures. These official "Final Documents" shall be distributed to the following:

1. 1 set Building Official
2. 1 set Fire Chief's office
3. 3 sets City Plan Review Coordinator
4. 1 set Public Works Project Manager
5. Electronic files of all plans and specifications shall be furnished to City in addition to hard copies.

D. "Addendum" to the Final Documents

The first sheet of each and every addendum issued to bidders shall show the number of pages in the addendum and shall list any attached sketches, drawings or other material included in the addendum. In addition, the first sheet of each and every Addendum shall bear the name of the project, the date and the seal and signature of the responsible licensed professional. Copies of each addendum with seal and signature shall be distributed to the above recipients in the same fashion as the official "Final Documents." Each addendum shall show:

1. The name of the A/E,
2. the Project Title,
3. the Addendum Number,
4. the seal and signature of the responsible licensed professional,
5. the date of the Addendum,
6. the page number and total number of pages,
7. and a list of any attachments to and part of the Addendum.

12. SUBCONTRACTS

No portion of the A/E professional services shall be subcontracted without prior written consent of the City. Consultants proposed by the A/E during the selection and fee negotiation phases are assumed to be acceptable to the City unless the City notes otherwise during those phases. In the event that the A/E desires to subcontract some part of the Work required by the Contract to a consultant or subcontractor not previously approved, the A/E shall furnish the City names, qualifications and experience of the proposed consultants. The A/E shall, however, remain fully liable and responsible for all Work performed by his consultants and subcontractors and shall assure that their Work complies with all requirements of the A/E's Contract.

13. MODIFICATION OF THE A/E CONTRACT (A/E CHANGE ORDERS)

The City may, upon mutual agreement with the A/E, issue written modifications to the scope of services of the Contract. Any single change order, or accumulation of change orders, which increases the A/E Contract Amount by 25% of the original contract amount or \$50,000, whichever is greater, must have the prior approval of the City Council or its designee. The first Change Order which causes the cumulative total of Change Orders to exceed \$50,000 or 25% of the original Contract Price, whichever is greater, and all

subsequent A/E Change Orders which increase the Contract Amount must have the prior approval of the City Council or designee. In making any modification, the resulting increase or decrease in cost shall be determined by one of the methods selected by the City in accordance with requirements of the Public Procurement Act.

14. PAYMENTS TO THE ARCHITECT/ENGINEER

1. The A/E shall submit its invoice with the documentation required by the City. The invoice shall generally itemize or show a breakdown of the various phases or parts of the Total Contract Amount, the value of the various phases or parts, the previously invoiced and approved amounts for payment, and the amount of the current invoice. The invoice shall also include a certification statement signed by the A/E stating that the A/E has paid its consultants, subcontractors and suppliers their individual proportional share of all previous payments, including interest, received from the City. Invoices for reimbursable shall include documentation of costs for which reimbursement is sought. Invoices for Work being performed on an hourly rate basis shall show the technical classifications, names of the persons performing the work, man-hours expended, marked up hourly rates for the classification, and the extended cost amount.
2. Unless there is a dispute about the compensation due the A/E including, but not limited to, claims by the City against the A/E, then within thirty (30) days after receipt by the City of the A/E's invoice, which shall be considered the invoice receipt date, the City shall pay to the A/E the amount approved less any retainage and less any prior payments or advances made to A/E. The date on which payment is due shall be referred to as the Payment Date.
3. The City may agree to make progress or partial payments to the A/E during any phase of the Work based on the estimated value of the Work completed by the A/E on that phase. Any such progress payment shall be based on the City's opinion of the value of the Work completed as of the date of the invoice. The A/E may invoice the City and, if the City agrees that the submittal for the particular design phase is complete, the City may approve payment of a cumulative amount of not more than 95% of the value of that phase at the time the phase submittal is made to the City. The A/E may invoice the City for the remaining 5% (balance of the value of that phase) when the submittal has been reviewed and approved.
4. Disputes about the compensation due the A/E may include, but are not limited to, the amount due, the value or percentage of the Work completed, defects or deficiencies in the Work, quality of the Work, compliance with the Contract Documents, completion itself, or negligent acts, errors, or omissions on the part of the A/E. In the event of disputes, payment shall be mailed on or before the Payment Date for amounts and Work not in dispute, subject to any setoffs claimed by the City.

5. All prior payments, whether based on estimates or otherwise, may be corrected and adjusted in any payment and shall be corrected and adjusted in the final payment. In the event that any invoice by the A/E contains a defect or impropriety which would prevent payment by the Payment Date, the City shall notify the A/E in writing of such defect or impropriety within ten (10) days after the invoice receipt date. Any disputed amounts determined by the City to be payable to the A/E shall be due thirty (30) days from the date the dispute is resolved.
6. Interest shall accrue on all amounts owed by the City to the A/E which remain unpaid seven (7) days following the Payment Date. In no event shall the rate of interest charge exceed the rate of interest established pursuant to Virginia Code §6.1-330.53. No interest shall accrue when payment is delayed because of a dispute between the City and the A/E as described in subparagraph (4) above, or a dispute as to the accuracy of any Request for Payment received. This exception to the accrual of interest shall apply only to that portion of a delayed payment which is actually the subject of the dispute and shall apply only for the duration of such disagreement. Nor shall interest accrue on retainage, which is withheld to assure faithful performance of the Contract. In those cases where payment is made by mailing, the date of mailing of any payment by the U.S. Postal Service is deemed to be the date of payment to the addressee. Where payment is made by electronic transfer of funds, the date of the transfer of funds is deemed to be the date of payment. The City is entitled to interest on all amounts from the A/E that remain unpaid thirty (30) days after the amount is deemed due, whether as a result of a resolution of a dispute or otherwise. Any such interest shall be calculated by the same method as set forth in this subsection.

15. PAYMENTS BY ARCHITECT/ENGINEER

The A/E shall at the time of contract award, require every consultant, subcontractor and supplier to provide its Social Security Number (SSN), if a sole proprietor, or its Federal Employer Identification Number (FEIN), if a corporation or partnership. Except in cases of bona fide disputes, or where the A/E has some other justifiable reason for delaying payment, the A/E shall pay:

1. To each of its Consultants, Subcontractors and Suppliers, not later than seven (7) calendar days after receipt of amounts paid to the A/E by the City, the proportionate share of the total payment, including any interest, received from the City attributable to the Work performed by Consultants and Subcontractors and materials furnished by Suppliers less a retainage of not more than five percent (5%), said retainage being the same money, not additional money, retained by the City from the payment to the A/E.
2. In the case of bona fide disputes or where the A/E has some other justifiable reason to delay payment, not later than seven (7) calendar days after receipt of amounts paid to the A/E by the City, the A/E shall notify the City and the Consultant, Subcontractor or Supplier, in writing, of his intention to withhold all or a part of the Consultant, Subcontractor or Supplier's payment with the reason

for nonpayment. The A/E shall make timely payments of those portions of the payment not in dispute.

3. The A/E shall pay interest to the Consultants, Subcontractors or Suppliers on all amounts owed by the A/E that remain unpaid after seven (7) days following receipt by the A/E of payment from the City for work performed by the Consultants, Subcontractors or materials furnished by Suppliers under the contract, except for amounts withheld as allowed in subsection (2) of this Section. Unless otherwise provided under the terms of this contract, interest shall accrue at the rate of one percent per month.
4. The A/E's obligation to pay interest to its Consultants, Subcontractors or Suppliers pursuant to subsection (3) of this Section shall not be construed to be an obligation of the City.
5. A contract modification shall not be made for the purpose of providing reimbursement to the A/E for such interest charge. The A/E's invoice shall not include any amount for reimbursement for such interest charge. Failure on the part of the A/E to conform to the requirements the VPPA may be considered a breach of the requirements of the Contract and/or a violation of law.

16. AUDIT

The A/E shall provide documentation subject to audit for all invoices requesting payment for services provided on a cost reimbursement or hourly rate basis. Compensation paid to the A/E on these bases is subject to adjustment based on the results of the audit. The A/E, by signing the Contract, agrees to retain all books, records, and other documents relative to the contract for five (5) years after final payment, or until audited by the City, whichever is sooner. The City, its authorized agents, and/or State auditors shall have full access to and the right to examine any of the materials during said period.

17. CONFLICTS OF INTEREST

The A/E, including any subsidiaries or affiliates or other entities in which the A/E has a pecuniary interest, which design, prepare plans and specifications, or cost estimates for a construction contract is prohibited from providing all or a portion of said construction, or the supplies or equipment used in such construction. In addition, an entity which provides to the A/E any design services specifying a sole source for materials, supplies or equipment to be used in the construction shall be prohibited from bidding on, or otherwise furnishing such materials, supplies or equipment for the construction. This prohibition does not apply to a vendor who provides catalog information, technical data and such on products, material or equipment to the A/E for the A/E's consideration. Furthermore, the A/E shall not receive or be under any Contract or have any financial connection with any General Contractor or Subcontractor working or may work on the said project. Any financial connection to said GC, SC firms or corporations shall be reported to the City. City reserves the right to terminate A/E Contract under the Termination Clause.

18. DEFAULT

In case of the A/E's failure to deliver the reports, documents, drawings, or services in accordance with these Standard Requirements for A/E Agreements or the Contract terms and conditions; the City, after due written notice, may procure same from other sources, and the A/E shall be responsible for any resulting additional procurement and administrative costs. This remedy shall be in addition to any other remedies which the City may have.

19. TERMINATION OF CONTRACT BY THE CITY

A. General

The City may terminate the Contract for cause or for convenience after giving thirty (30) days written notice to the A/E. The written notice shall include a statement of reasons for the termination.

B. Termination for Cause

If the A/E should substantially breach the Contract or fail to perform the services, or any portion thereof, required by the Contract, the City may terminate the Contract for cause by giving written notice as set forth above or may give the A/E a stated period of time within which to remedy its breach of contract. If the A/E shall fail to remedy the breach within the time allotted by the City, the Contract may be terminated by the City at any time thereafter upon written notice, effective immediately upon receipt. The City's forbearance in not terminating the contract shall not constitute a waiver of the City's right to terminate in the future for similar breaches or failures to perform. If the Contract is terminated for cause, the A/E shall be responsible for all damages incurred by the City as a result of the A/E's breach of contract or failure to perform, including but not limited to, all costs and expenses incurred in securing a replacement A/E to fulfill the obligations of the Contract. Any termination by the City for default, if determined by a court of competent jurisdiction not to have been justified as a termination for default, shall be deemed a termination for the convenience of the City.

C. Termination for Convenience

The City may terminate the Contract in whole or in part for convenience by delivering to A/E a written notice of termination as set forth above, specifying the extent to which performance under the contract is terminated and the effective date of the termination. Upon receipt of such notice, the A/E must stop Work, including but not limited to Work performed by subcontractors and consultants, at such time and to the extent specified in the notice. If the contract is terminated for convenience, the A/E shall be entitled to those fees earned for Work performed in accordance with the Contract prior to the notice of termination. Thereafter, the A/E shall be entitled to any fees earned for work not terminated, but shall not be entitled to lost profits for the portions of the Contract which were terminated. The A/E will be compensated for reasonable costs or expenses for delivery to the City of the products of the services for which the A/E has or will receive compensation.

D. Delivery of Materials

Any termination shall not relieve the A/E of the obligation to deliver to the City all products of the services for which the A/E has been or will be compensated, including, but not limited to, the original drawings and specifications, copies of CADD diskettes or tapes, calculations, and analyses. Unless otherwise agreed to in writing, the A/E shall deliver the materials to the City within thirty (30) days of receipt of the notice of termination. Failure to do so shall result in the withholding of final payment and shall constitute a material or substantial breach of contract.

E. Compensation Due the A/E

When the A/E is terminated for convenience, the following method shall be utilized in computing amounts due the A/E for services prior to termination:

1. If terminated at the completion of a design phase or the bidding phase, the amount due shall be the cumulative total of the fees for the phases completed according to the Contract.
2. If terminated prior to completion of a design phase or the bidding phase, the amount due shall be the sum of the previously completed phase fees plus a negotiated amount based on the portion of services provided for the phase not completed.
3. If terminated during the construction phase, the total amount earned shall be the sum of the previously completed design and bidding phase fees plus a negotiated amount based on the portion of the construction period services provided through the notice of termination.
4. Payment for the Additional Services portion of the fee shall be any portion of those services provided up through the notice of termination.
5. Payment for the Reimbursable Expenses shall be based on approved reimbursable expenses incurred up through the notice of termination. The A/E shall submit invoices for all such amounts in accordance with the normal billing process, but in no event later than 60 days after the last Work is performed. All amounts invoiced are subject to deductions for amounts previously paid or for amounts due the City.

20. ASSIGNMENT OF CONTRACT

The A/E shall not assign the Contract between the City and the A/E, in whole or in part, without the prior written consent of the City.

21. ANTITRUST

By entering into a contract, the A/E conveys, sells, assigns, and transfers to the City all rights, title and interest in and to all causes of the action it may now have or hereafter acquire under the antitrust laws of the United States and the City, relating to the particular goods or services purchased or acquired by the City under said Contract.

22. ETHICS IN PUBLIC CONTRACTING

The A/E shall not offer or receive any kickbacks or inducements from any other offeror, General Contractor or other firm associated with this project, supplier, manufacturer or subcontractor in connection with this project. The A/E shall not confer on any public employee having official responsibility for this project any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.

23. ANTI-DISCRIMINATION

By signing the Contract, the A/E certifies to the City that it, as contractor for the services described in the RFP and the Contract, will conform to the provisions of the Federal Civil Rights Act of 1964, as amended, as well as the Virginia Fair Employment Act of 1975, as amended, where applicable, and §2.2-4310 and §2.2-4311 of the Virginia Public Procurement Act which provides that: In every contract over \$10,000, the contractor (i.e. the A/E) agrees the provisions in (1) and (2) below apply:

- 1) During the performance of this contract, the contractor agrees as follows:
 - a. The contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or other basis prohibited by state law relating to discrimination in employment. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
 - b. The contractor, in all solicitations or advertisements for employees placed by or on behalf of the contractor, will state that such contractor is an equal opportunity employer.
 - c. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.

- 2) The contractor will include the provisions of the foregoing paragraphs a, b and c in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor. Where applicable, the “Virginians with Disabilities Act” and the federal “Americans with Disabilities Act” shall apply to the A/E and all subcontractors or consultants.

24. APPLICABLE LAW AND COURTS

This A/E contract and the performance thereof shall be governed by and enforced under the laws of the Commonwealth of Virginia, and if legal action by either party is necessary for or with respect to the enforcement of any or all of the terms and conditions hereof, then exclusive venue therefore shall lie in the City of Danville, Virginia.

25. EMPLOYMENT

The contractor does not, and shall not during the performance of the contract for goods and services in the Commonwealth, knowingly employ an unauthorized alien as defined in the federal Immigration Reform and Control Act of 1986.

26. DESIGN OF SECURITY SYSTEMS

Any Bidder/Offeror for the installation, service, maintenance, or design of security equipment or any central station alarm condition monitoring service shall be licensed by the Department of Criminal Justice Services pursuant to Virginia Code §9.1-139. If the A/E proposes to have the security system designed by a subcontractor/consultant, such entity shall be properly licensed as required by Virginia Code §9.1-139. Any projects designed by the A/E which have such security systems shall include the licensing requirements of Virginia Code §9.1-139, in the specifications and the requirement that the successful bidder shall provide documentation within five (5) calendar days of bid opening that the entity (contractor or subcontractor) performing the security system work possesses the proper license.

27. RESPONSIBILITIES OF THE CITY TO THE A/E

The City shall be responsible for providing the following information/data to the A/E, if required, for the planning and design of the project. The information so furnished shall not relieve the A/E of the responsibility for evaluating the information provided and for notifying the City of any additional surveys, investigations, tests or other information required for the A/E to perform its services.

The City may:

- A. Provide the A/E with a budget Design-not-to-exceed construction cost for the project.
- B. Set a schedule for planning and design of the project. The schedule shall allow reasonable times for review of the various phases by review agencies. The schedule shall be developed in conjunction with the A/E but shall be based on the date the City has determined that the project needs to be placed under contract for construction. The schedule is considered an integral part of the project scope and shall be monitored for adherence. The City agrees to make every reasonable effort to assist the A/E in complying with the schedule.
- C. Provide the A/E with a survey of the site in the form of topographic maps or plats locating relevant existing buildings to scale and, where necessary, showing bench marks, grades, lines of streets, pavements, property lines, rights-of-way, restrictions, easements, other improvements and trees.
- D. Provide utility maps showing the location, size and elevation of all existing public and private utilities which might interfere with the project or to which the project might be connected.
- E. Provide location and dimensions of existing buildings. Where the interior arrangement, construction, or floor level of an existing building affects the plans for the project, the City shall furnish the A/E with the necessary information as to interior arrangement, including reasonably accurate record drawings (if available), construction system information, and floor levels.

- F. Provide a list of all-existing equipment, furniture, furnishings, apparatus, etc., to be used on the project, including all necessary characteristics required to coordinate the equipment in the project.
- G. Provide a budget cost estimate of any equipment that the A/E will be required to specify and Include in the contract. The City shall provide an itemized list of such equipment, with the standards as to type, size, quality, etc., for the A/E's guidance in preparing the specifications for this equipment.
- H. If the A/E determines that roof scans, structural, chemical, mechanical, asbestos, lead based paint, or geotechnical investigations including borings or load tests for soil bearing capacity, are necessary, the A/E shall inform the City of such requirements and the City shall secure such information. The A/E shall provide guidance and criteria to assist the City in obtaining these services. Any geotechnical investigation shall include testing, analysis of test results and design recommendations based on preliminary design parameters furnished by the A/E (e.g. type of construction, estimated column loads, estimated wall footing loads, proposed floor elevations relative to existing grade, etc.). The cost of the testing, analysis and design recommendations shall be borne by the City. Preparing a scope of work and the preliminary design parameters to assist the City in securing the geotechnical services shall be part of the A/E's Basic Services.
- I. Obtain the services of a professional construction cost estimator when an independent detailed quantitative cost estimate is to validate other cost estimates or funding requests. This does not relieve the A/E of responsibility for providing the cost estimate required by the A/E Contract.
- J. Determine any specific development requirements of political subdivisions appropriate and consistent with existing statutes. (All requests and/or requirements of a political subdivision, preferably over the signature of its chief administrative officer, shall be included in the schematic design so that any questions might be reconciled very early in the planning process.)
- K. Pay the invoice cost of all sets of Plans and Specifications for the initial schematic, preliminary and working drawing submittals. Where the City determines that the submittals made by the A/E were negligently deficient, the A/E may be required to reimburse the City for the cost of any resubmittals required.
- L. Compensate the A/E for the additional services in the preparation or presentation of any submittals to secure approvals for environmental or other applicable special requirements such as air and noise pollution provisions of local, state or federal agencies or preparation of environmental impact statements. These additional services are apart from those normally required.

- M. Compensate the A/E in accordance with the contract. The values of the various phases or parts of the contract amount shall be set out in the Contract.
- N. The City shall provide written notice to the Architect if the City becomes aware of any fault or defect in the project, including any errors, omissions, or inconsistencies in the Architect's Instruments of Service within seven (7) days of such discovery.
- The City may assist the Architect during the project; however the Architect will be the A/E of record and shall bear the responsibility to ensure to General Contractor (GC), Sub-contractors (S-C), and others complete the project in accordance with the Architect's Instruments of Service. The City will forward copies of the special inspection reports and lab testing reports to the Architect for review and approval as soon as they become available.

28. QUALITY OF WORK

The A/E shall be responsible for the professional service, including the technical accuracy and coordination of all designs, drawings, specifications, cost estimates, and other work or materials provided. The project documents submitted by the A/E shall represent a reasonable, code compliant, and acceptable architectural and/or engineering solution based on the scope of work, "design-not-to-exceed" budget limitations and other constraints of the A/E's contract. All work must be in accordance with current criteria, guides, and specifications set forth in this document, and shall conform to good architectural and engineering practices. Workmanship shall be neat with all lines and lettering of uniform weight and clarity for complete legibility and satisfactory reproduction. All elements of the A/E's submittals shall be checked by professional personnel trained in that specific discipline. The A/E's submittal will be reviewed for compliance with VUSBC and project requirements and criteria. Errors and deficiencies shall be corrected by the A/E at no additional cost to the City.

29. STANDARDS FOR A/E SERVICES

Simply put, the A/E is hired to provide the knowledge, skills and abilities to convert the City's functional, spatial, and aesthetic requirements for a project into a complete set of documents for bidding and construction and then to ascertain whether the project is constructed in conformance with those documents. The Basic Services normally provided by the A/E are generally described below.

The A/E must restrict itself to the authorized scope of work. Deviations from the authorized scope might include incorporating embellishments which increase the cost above programmed amounts for the project, or increase the building area or make major changes in construction criteria, including unauthorized buildings or areas in the project, selecting specific systems or equipment without economic or technical evaluation, or introducing special equipment. It is the A/E's contractual responsibility to design a facility that can be constructed within the "design-not-to-exceed" budget and which conforms with applicable codes. During the development of the project and through

approval of preliminaries, the A/E may expect clarifications and refinements within the general scope of the project and shall make necessary adjustments accordingly.

Generally, approval of the preliminary design based on incorporation of review comments will establish the requirements for development of the working drawings and final design of the project. Changes or modifications required to conform to Code requirements are also considered to be work within the scope of the Contract. If changes in the scope of work are authorized, appropriate modifications to the A/E contract will be negotiated. Public (City) work and private sector work differ in many respects, and the A/E must understand and take these differences into account as it carries out its basic services, particularly in preparing the construction contract documents. For example:

- A. The City cannot limit bidding to a selected list of contractors known to do good work. Unless contractors are prequalified for the project, any licensed contractor may bid. Since bidder's level of knowledge and experience is unknown, drawing and specification requirements must be clear and concise, and must clearly indicate the specific features or work to be provided. The A/E cannot assume that the bidder will include features not specifically called for, and shall not leave essential items to be "worked out in the field" or "worked out on the shop drawings."
- B. Sections, details, and dimensions must be provided in sufficient quantity, clarity and detail to enable the bidder to understand what is expected, to make takeoffs of material types and quantities, and, once hired, to prepare shop drawings and execute the construction. This is particularly important in drawings and specifications related to stairs, special connections for framing, typical details of system interfaces, flashings for roofs and walls, and similar building features.
- C. Project design is the sole responsibility of the A/E. Specifications that require the contractor to provide engineering design are not acceptable unless the products specified for contractor design are closed engineered systems. Closed-engineered systems include: pre-engineered buildings, manufactured mechanical equipment, prefabricated trusses, precast / prestressed concrete elements, ~~and~~ common steel structural bolted connections, and fire protection. Other systems can be defined as closed engineered systems if approved by the City. The A/E shall review and approve the submittal for the General Contractor.
- D. In order to encourage competition that maximizes the use of public funds, performance specifications defining a desired result or assembly, or referencing recognized standards that define a desired result or assembly, are strongly preferred. If performance specifications are not practical, and a manufactured product must be used to define a desired result or assembly, then three manufacturers with their products or model numbers shall be referenced. The A/E should not reference both manufactured products and performance criteria because conflicts in the performance criteria and the product performance may create unnecessary conflicts.

Understanding and implementing these basic differences in rules and policies may prevent many costly disputes, claims, and resubmittals by the A/E.

30. A/E BASIC SERVICES

“Basic services” means the application of professional architectural and engineering knowledge, skills, experience and expertise to translate the City’s spatial, functional and adjacency requirements into a facility design described by Plans and Specifications for construction that comply with applicable building codes are consistent with the City’s project definition and satisfy the City’s “design-not-to-exceed” budget. After award of a construction contract, “basic services” involve making such reviews, evaluations, inspections, observations, and recommendations as appropriate to assist the City in obtaining a constructed facility conforming to the A/E’s Plans and Specifications. “Basic services” are usually separated into sequential phases for the purpose of identification and payment. The A/E shall document in writing summaries of all meetings, direction, guidance, clarifications, site visit observations, field orders and such and provide copies of the documentation to the City and to other participants or attendees as appropriate. The following generally describes services to be provided during each phase of the project, unless specifically waived:

A. Project Initiation, including Schematic Phase

1. Consult with the City to define, clarify and refine the City’s requirements for the Project; review available data; confirm the scope of the project and the services required from the A/E; review the “design to” cost; establish the quality of materials, aesthetics desired and other factors pertinent to the project.
2. Identify and analyze requirements of governmental authorities having jurisdiction to approve the design of the project and participate in consultations with such authorities.
3. The A/E shall not rely totally on information contained in the “as-built” documents. As part of the required services, it is the A/E’s responsibility to verify, by on-site observations of applicable existing buildings, the configurations, locations, dimensions, sizes and conditions accessible for verification. Certain assumptions are made regarding existing conditions in the remodeling and or rehabilitation of an existing building. Some of these assumptions may not be verifiable without additional exploration or investigation of the building or site. To minimize the risk during construction of uncovering conditions that are not as shown on the documents and delaying project progress, the City should consider and evaluate the advice of the A/E to conduct additional investigation, verifications or checks to verify assumptions.
4. Analyze the City’s spatial and functional requirements, its required and preferred space adjacencies, its planning surveys, its site evaluations and its comparative studies of prospective sites; provide alternative schemes or solutions for review, approval and/or selection by the City.
5. Prior to preparing the Schematic Submittal, submit floor plan and elevation schemes to the City and describe how the schemes relate to the space, function, and adjacency requirements in the project criteria.

6. Provide a general economic analysis of City's requirements applicable to various alternatives.
7. Prepare a budget systems cost estimate for the building systems proposed.
8. Prepare and submit Schematic material for this phase.
9. Prepare presentation for the Art and Architectural Review Board (AARB) for new construction and for exterior renovations, alterations and rehabilitations of existing buildings; make presentations as necessary to obtain recommendations for approval (if required).
10. Prepare materials for presentation to the Department of Historic Resources (DHR) for supportive recommendation on projects involving interior renovation, rehabilitation and/or remodeling of existing buildings and for exterior renovations of existing building (if required).
11. Prepare and distribute minutes of project meetings or telephonic discussions summarizing discussions, agreements and direction given or received.

B. Preliminary Design Phase

After written authorization to proceed with the Preliminary Design Phase, A/E shall:

1. In consultation with City and based on the accepted study and/or submittal documents and review comments, determine the scope, extent and character of the project.
2. Advise City if additional data or services are necessary and assist City in obtaining such data or services.
3. Prepare and submit preliminary design documents for this phase.
4. Prepare generic furnishing and equipment information floor plans that depict the proposed layout and demonstrate that the required items will fit functionally and space wise in the rooms.
5. Prepare and make presentations to the Art and Architectural Review Board and Department of Historic Resources as may be required for recommendations for approval.
6. Prepare and submit a complete systems cost estimate with appropriate backup data.
7. Participate in the Value Engineering Study (if required). Include described A/E participation as a separate additional service in fee proposal.
8. Prepare and submit to the City written responses to all reviewing Agencies comments and, if applicable, provide the technical data the City may need to substantiate any waiver request required.
9. Resolve all outstanding issues, comments from reviewers, and Value Engineering recommendations before proceeding with the Working Drawing Phase.
10. Prepare and distribute minutes of project meetings or telephonic discussions summarizing discussions, agreements and direction given or received.

C. Working Drawings (Construction Documents) Phase

After written authorization to proceed with the final design, A/E shall:

1. On the basis of the accepted Preliminary Design documents, the accepted Value Engineering recommendations, and the review comments as finally

resolved, prepare Final Drawings (hereinafter called “Plans”) to be included in the Contract Documents showing the complete scope, extent and character of the work to be furnished and performed by Contractor(s). Also prepare Specifications for inclusion in the Contract Documents that conform to the sixteen-division (or seventeen-division, if adopted) format of the Construction Specifications Institute. Specify all finishes and provide color selections of all materials and finishes included in the construction contract.

2. Provide technical criteria, written descriptions and design data for the City’s use in filing applications for permits with or obtaining approvals of such governmental authorities as have jurisdiction to approve the design of the Project; assist the City in consultations with appropriate authorities.
3. Advise the City of potential cost overruns, the necessity for unit pricing of any work, the necessity for additive bid items, and assist in preparing and documenting any requests or submittals required.
4. Prepare soil and erosion control plans and storm water management plans for the City to submit to appropriate agencies for approval.
5. Prepare/update a detailed systems cost estimate with backup data and submit with working drawing submittal.
6. Provide recommendation on number of days estimated for substantial completion of the construction of the project.
7. Prepare and submit completed Plans and Specifications and other documents in accordance with the requirements for approval.
8. Make any revisions necessary to the Plans and Specifications to be reproduced so that they incorporate resolution and/or correction of all problems raised during review; submit a written response to all review comments to the City prior to printing the documents for bidding the project. Do not use the Addendum method to resolve problems or make the corrections required by City comments. Based upon the typical Agency review comments and approvals encountered with public funded projects, the A/E has budgeted 80 work hours for the response to said Agency comments. The A/E will bill for all hours over 80 and credit any hours less than 80.
9. Assist the City in evaluating contractor and/or subcontractor prequalification data if contractors are prequalified for the project.
10. Prepare and distribute minutes of project meetings or telephonic discussions summarizing discussions, agreements and direction given or received.

D. Bidding Phase

After written authorization to proceed with the Bidding Phase, the A/E shall, unless deleted by the contract or Change Order:

1. Assist the City in advertising for and obtaining bid proposals for each one general contractor, whether for construction, materials, equipment or services. Where applicable, issue Bid Documents, maintain a record of prospective bidders to whom the Bid Documents have been issued, attend pre-bid conferences, and receive and process deposits for Bid Documents.

2. Issue addenda, as appropriate, to interpret, clarify or define the requirements of the Bid Documents. Show Project Code and Title on each Addendum. Each Addendum shall bear the A/E seal, signature and date.
3. Assist the City in determining whether the lowest bidders are responsive and responsible.
4. Consult with and advise City as to the acceptability of subcontractors, suppliers, other persons or organizations proposed by the low bidder when such acceptability is required by the Bid Documents.
5. Requirements for pre-approval of materials proposed by bidders / suppliers are not allowed to be specified. Substitutions are not allowed during the bidding process. If the A/E determines that other materials are acceptable during the Bid Period, an Addendum shall be issued to modify the specifications and any material that meets the specifications may be provided. **“Unsolicited Alternate bid items by the General Contractor are not permitted”**, however, A/E will provide clear language in the specs general condition section related to this item.
6. Attend the bid opening, prepare bid tabulation sheets and assist the City in evaluating bids or proposals. Make recommendations for awarding contracts for construction, materials, equipment and/or services.
7. When the lowest responsive and responsible bid exceeds the budgeted project cost, A/E shall assist the City in negotiating with the low bidder, if applicable, and/or modify the bid documents, as appropriate, and assist the City in reissuing the IFB. If the City is allowed to negotiate with the low bidder to obtain a price acceptable for award of a contract, the A/E shall also prepare the modifications to the drawings, details and specifications to document the changes made to the contract documents.
8. Consult with City on the acceptability of any substitute materials and equipment proposed by Low Bidder when the City is authorized to negotiate with the Low Bidder.
9. Receive and inspect Bid Documents returned; issue refunds to bidders, as appropriate.

E. Construction Phase

(Submittal Review and Construction Administration Services)

1. Consultations

A/E shall consult with and advise the City on all technical matters and act as the City’s representative in dealing with the Contractor on all such matters. The City’s instructions to Contractor(s) will be issued through the A/E, who has authority to act on behalf of City to the extent provided in the General Conditions except as otherwise provided in writing.

2. Interpretations and Clarifications

The A/E shall issue all necessary interpretations and clarifications of the Contract Documents and in connection therewith prepare any necessary field orders and Change Orders.

3. Field and Change Orders

Issue Field Orders and assist the City in preparing and issuing Change Orders. Where the City has obtained approval to modify the A/E Contract to reduce the A/E's Construction Phase services, the following shall apply:

- a. Any matters of a technical nature which affect the integrity of the exterior architectural, structural or fire safety systems or which affect the integrity or operation of the mechanical, plumbing, or electrical systems shall be validated by the A/E before a Field Order or Change Order is issued.
- b. Field Orders on non-technical matters such as landscaping, finishes, colors, and similar items which do not affect the exterior architectural appearance or the structural, fire safety, mechanical or electrical system integrity may be handled by a qualified licensed professional from the City staff or by a licensed professional of the separate contractor engaged to provide such services.

4. Shop Drawings

The A/E shall review and approve (with or without conditions), reject or take other appropriate action on Shop Drawings and other submittals required of the Contractor. The A/E shall review for conformance with the Project design concept and compliance with the information given in the Contract Documents. Such reviews and approvals or other action shall not extend to means, methods, techniques, sequences or construction procedures or safety precautions and programs incident thereto. *See General Conditions Section 24.*

5. Equals

The A/E shall evaluate and determine the acceptability of any equal materials or equipment proposed by Contractor.

6. Structural and Special Inspections

The A/E shall provide the services related to proper installation of structural systems on the project, including the review of applicable inspection and test reports by the City's Testing and Inspection entity.

7. Disputes between City and Contractor

The A/E shall act as initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the work there under and shall make recommendations to the City on all Contractor claims relating to the acceptability of the work or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of the work.

8. Construction Visits, Inspection and Closeout Services to be Performed by the A/E or by the City Project Management and Inspection Entity

The following construction period services shall also be provided by the A/E as part of its Basic Services unless specifically deleted in the A/E Contract delegated by the City to its Project Inspector or separate Construction Administrator entities. (Note: When the service(s) has been delegated to other than the A/E, the description below applies to the person or entity to whom it has been delegated.)

a. Visits to Site and Observation of Construction.

An A/E representative who is knowledgeable of the project and competent in each discipline which has trade activities and stages of construction being performed shall visit the site at intervals of not less than two (2) times per month to observe as an experienced and qualified design professional the

progress and quality of the various aspects of the contractor's work. Based on information obtained during such visits and on such observations, the A/E shall endeavor to determine whether such work is proceeding in accordance with the Contract Documents and shall keep the City informed of the general progress of the work in relation to the overall schedule Document in writing.

b. Inspections of Work in progress by the A/E.

During his periodic visits to the site to observe the work in progress, the A/E shall observe the work installed and the work in progress to determine compliance with the requirements of the Contract Documents. On the basis of the site visits, the Architect shall keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and report to the Owner (1) deviations from the Contract Documents and from the most recent construction schedule submitted by the Contractor, and (2) defects and deficiencies in the Work, along with A/E coping the City will all field reports of each site visit. The City and Architect shall identify and communicate to the General Contractor all items to be observed by the A/E prior to any covering.

c. Supplemental Inspections and Tests.

For Work not in compliance with the Contract Documents, the A/E shall, with the City's approval, require additional or supplemental inspection or testing. The A/E shall receive and review all certificates of inspections, tests and approvals required by laws, rules, regulations, ordinances, codes, orders, or the Contract Documents and shall determine whether their content complies with the requirements of each. The A/E shall also determine whether the results certified indicate compliance with the Contract Documents documented in writing. **NOTE: this does not require a standard of care above the Virginia industry standard of care.**

d. Defective Work.

During its site visits and based on its observation during such visits, the A/E may disapprove or reject Contractor(s)'s work, or any portion thereof, while the work is in progress if A/E believes that such work does not conform to the Contract Documents, including the approved shop drawings or other submittals. The A/E may also recommend that the City reject any work which it believes will not result in a completed Project that conforms generally to the Contract Documents or that it believes will prejudice the integrity of the design as reflected in the Contract Documents documented in writing.

e. Contractor Applications for Payment.

Based on the A/E's on-site observations as an experienced and qualified design professional, review of applications for payment and the accompanying data and schedules, the A/E shall determine the amounts due to Contractor(s) and recommend in writing payments to the Contractor(s). Such recommendations will constitute a representation to City, based on such observations and review, that the work has progressed to the point indicated and that to the best of the A/E's present knowledge, information and belief, the quality of such work is generally in accordance with the Contract

Documents (subject to an evaluation of such work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents and any other qualifications stated in the recommendation). In the case of unit price work, the A/E's recommendations for payment will include final determinations of quantities and classifications of such work subject to any subsequent adjustments allowed by the Contract Documents approved by the City.

f. Substantial Completion Inspection.

Prior to scheduling a substantial completion inspection, the A/E shall verify that the project is, in fact, ready for such an inspection and advise the City in writing of same. At a minimum, the A/E's licensed professional architect, mechanical engineer, and electrical engineer shall be present at the substantial completion inspection unless absent on an express written waiver by the City.

g. Final Completion Inspection.

The A/E shall conduct a final inspection to determine if the completed work is acceptable. The A/E shall notify the City in time to allow City representatives to participate in the inspections. If the Final Completion Inspection is successful, the A/E shall, when approved by the A/E, recommend, in writing, final payment to Contractor(s) and give written notice to the City and the Contractor(s) that the work is acceptable. The A/E may, however, accept some portions of the Work and reject others or may accept some or all of the Work subject to certain conditions. Written notice shall be provided to the City and Contractor of the results of such inspections.

h. Contractor's Completion Documents.

The A/E shall receive and review maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection, tests and approvals which are to be assembled by Contractor(s) in accordance with the Contract Documents, and shall transmit them to the City with written comments. The A/E shall receive the As built drawing mark-ups required from the Contractor and transfer data to and prepare the Record Drawings.

i. Project Closeout.

A/E shall provide project closeout services.

31. WORK NOT INCLUDED IN THE SCOPE OF BASIC A/E SERVICES

The following services are not considered to be included in the A/E's Basic Services. If any of these services are included in the A/E's Contract, they shall be set out separately with fees negotiated and included in the total fixed fee in the Contract. If requested in writing after negotiation of the Contract, they shall constitute extra services and shall be negotiated and authorized by Change Order to the A/E Contract.

- A. When, after approval of any stage of the design, it is determined that a substantial change in the overall scheme is advisable, and such change is ordered by the City, the fixed fee amount for the additional work shall be agreed upon and added to the A/E contract by Change Order.

- B. When the City authorizes or directs the A/E to provide information or data which is normally the City's responsibility, the fixed fee amount for the additional work shall be agreed upon and included in the initial contract as extra services or added to the A/E contract by Change Order.
- C. When the City requests changes to drawings and specifications after the work is under construction, the fixed fee amount for the additional work shall be agreed upon and added to the A/E contract by Change Order.
- D. When delinquency, insolvency or failure of the Contractor to perform the Work requires extraordinary demands on the time of the A/E and the A/E has not contributed to such delays, the City may consider compensating the A/E for some portion of the time where documented and justified. A/E shall notify the City of any extraordinary demands. At the time of said demands, failure to notify will forfeit the A/E claim.
- E. When extra work is required as a result of damage by fire, unforeseen structural conditions, or other causes beyond the control of the A/E, the fixed fee amount for the additional work shall be agreed upon and added to the A/E contract by Change Order.
- F. When the Substantial Completion of construction is delayed beyond the Contract Completion Date for more than 30 days by the Contractor or the City and through no fault of the A/E, the A/E may be entitled to additional compensation for authorized additional periodic site visits / inspections necessitated by the delay. Requests for such compensation shall include documentation naming the person(s) making the additional visit, date(s), time(s), etc., as may be required by the City.
- G. When unforeseen conditions require special or continuous on-site services for an approved period of time, such special or continuous on-site services must be requested and approved in writing by the City in advance.
- H. When the A/E is directed to prepare, document and submit an Environmental Impact Study or Report, the fixed fee amount for the additional work shall be agreed upon and added to the A/E contract by Change Order.
- I. If the City decides after execution of the A/E Contract that prequalification of contractors and/or subcontractors is required, the services required of the A/E to assist in evaluating the prequalification data will be considered extra services and a fee for same shall be negotiated prior to the A/E performing the work.

32. INTERIOR DESIGN SERVICES FOR FURNITURE, FURNISHINGS AND DECORATIONS FOR BUILDING PROJECTS

A. General

The Basic Services of the A/E for a project require the A/E to provide informational floor plans which use basic template outlines to show that the required furniture will fit in the rooms or spaces. The A/E is also required to specify all building materials and finishes and to select the colors for all building components which the building contractor is required to provide and/or install. This section discusses requirements for the additional services or a separate contract for Interior Design services for the selection, specification, and procurement of furniture and furnishings that are not a part of the A/E's Basic

Services. A scope of services shall be determined and a fee negotiated for the interior design services described hereafter. All interior design selections must be approved in writing by the City Project Manager. These furnishings or furniture items are often procured by the City.

B. Scope

Examples of the scope of work for Interior Design services for furniture, furnishings and decorations when procured as an A/E additional service or as a separate contract are listed below. The person providing these services is referred to herein as the Interior Designer.

1. Selection of furniture, furnishings, and accessories including but not limited to beds, sofas, chairs, tables, screens, planters, art work, carpets, draperies, etc. The Interior Designer will recommend the proper item and color, fabric, finish, etc., for the City to procure.
2. The Interior Designer shall select and coordinate all colors, fabrics, etc., with the colors of the building finishes. Although building finishes are selected by the A/E during design and finalized during the review of Contractor submittals, the Interior Designer shall verify actual Contractor applied finishes through on-site verification and/or coordination with the City Project Manager.
3. The Interior Designer shall prepare presentation boards of a minimum size of 15 x 20 inches to show furniture placement plans, catalog cutouts of furniture, furnishings and accessories, color samples, material swatches of draperies, carpets and fabrics.
4. The Interior Designer shall prepare a minimum of three interior design 8-1/2 x 11 inch binders/packages with accompanying floor plan sheets and deliver to the City Project Manager. These binders/packages shall include but are not limited to:
 - a. Floor plans at 1/4" = 1'- 0" or larger scale indicating locations of all furniture, furnishings and accessories. These items should be identified with an item number keyed to the presentation boards and the furniture procurement list.
 - b. Procurement lists identifying all items to be purchased by model number, contract number (for state contracts), identification number and description (for non-state contract items), quantity, price, etc. Care shall be taken in the selection of all items to ensure that delivery times are reasonably within the City's schedule and state contracts, if applicable, will not be expired at the time of purchase.
 - c. Photographic color reproduction or color copies of the presentation boards reduced to fit 8-1/2 x 11 inch binder or package.
 - d. Specifications, drawings and other supporting data for standard procurement and special order items (draperies, custom-built screens or dividers, art work, etc.)
 - e. The Interior Designer shall advise, as needed, when changes must be made as a result of changes in requirements, non-availability of items or materials previously selected, etc.
 - f. The Interior Designer shall provide placement sheets for each room/area, listing each item of furniture or equipment that will go into the area.

33. PERSONNEL CLASSIFICATIONS AND HOURLY RATES

The following shall be used as guidance by the A/E in developing its fee proposal and by the City in evaluating the proposal and negotiating the fees for services.

A. A/E Project Technical Personnel

Technical personnel shall be construed to mean the A/E's Project Manager/Coordinator, architects (licensed), engineers (licensed) by discipline, designers including non-licensed architects and engineers, project inspector, surveyor, survey team, interior designer, landscape architect, draftsman, estimator, specifications writer, typist/clerk staff, field inspectors, and CADD computer operators.

"Principals," "Partners," "Associates," "CEO" and similar titles are generally considered by the City to be administrative and/or management functions whose costs have been included in the overhead markup of the rates for technical categories.

Technical activities which are performed by principals, etc., are categorized for fee negotiations, for change orders, and for hourly rate payment at the rates indicated for the technical activity or function that the Principal, etc., may be performing. *See the descriptions of Personnel Classifications below.*

B. Hourly Rates

The hourly rates proposed for the various classifications, categories, disciplines, and skill levels should be comparable to the average actual salary of qualified and competent persons in that skill level as marked up or adjusted for overheads and profit. Overhead markup consists of direct technical salary overhead (or "fringes") such as payroll taxes and insurances, vacation, holidays, health insurance premiums, and other benefits and of general office overhead such as administrative salaries, rent, utilities, business and liability insurances, telephone, equipment rental and depreciation, travel, promotion, etc. Hourly rates agreed to shall be the "marked-up" rates including all overheads and profit. General review, negotiations, supervision and such by the principals or other senior personnel are usually considered part of the general office overhead expense included in the hourly rates or the activity is part of the "project management" function. The City shall have the right to require the A/E to submit documentation to support the proposed hourly rates with mark-up factors proposed for use in the fee negotiations and fee determination when the proposed hourly rates exceed what the City considers the "norm" for the area. The average hourly rates by classification, including markups which are negotiated and accepted in fee negotiations, shall be recorded and listed in the Memorandum of Understanding which is appended to the A/E contract.

C. Technical Personnel Classifications

The following personnel classifications, categories, disciplines and skill levels descriptions are recognized as those directly involved with the coordination, planning, quality control and delivery of the A/E services required for the project:

1. **A/E Project Manager / Coordinator** - An experienced and licensed architect or engineer who has overall responsibility for the planning, design, coordination of all disciplines, quality assurance, and delivery of the A/E services to the City.

2. **Architect (Professional)** - A registered and licensed architect who has the knowledge, skills and experience to perform all architectural services required for the project and who is qualified to be in "responsible charge" of the architectural aspects of the project.
3. **Cost Estimator** - Skills required include a knowledge of building systems and components, the ability to read plans and specifications, the ability to make quantity takeoffs and apply pricing, the ability to obtain pricing information from reliable sources and adjust/apply such information to the specific project conditions and the ability to present a cost estimate with proper back up documentation.
4. **CADD / Draftsperson** - The skills required of this level position include tracing work already drawn to scale; drafting plans, sections and details to scale from sketches and data; modifying typical sections and details to be project/situation specific; and other miscellaneous duties supporting the preparation of contract documents.
5. **Designer (Architects and Engineers)** - Architects and/or engineers who by education, practical experience or a combination of education and experience have the knowledge and skills to perform analyses, calculations, and/or detailing for portions of a project in a particular discipline. This level person usually has either a degree and is gaining experience to become certified - licensed - registered or has many years of experience in layouts, detailing and/or calculations and works under the supervision of a licensed professional.
6. **Engineers - Structural, Mechanical, Electrical, Civil (Professional)** - A licensed professional engineer who has the knowledge, skills and experience to perform the analyses and design, to prepare the documents for the particular discipline and to be "in responsible charge" of that discipline.
7. **Landscape Architect** - A certified landscape architect who has the knowledge, skills and experience to provide the design and documents for the site landscaping for the project.
8. **Interior Design** - A certified interior designer who has the knowledge, skills and experience to provide the interior design services and documents for the project.
9. **Specification/Report Writer**- A professional level architect or engineer skilled in writing technical specifications for building and site related systems, equipment and components. The Writer shall also be skilled in preparing contract documents and understand the basic legal requirements and applications thereof.
10. **Typist/Clerical** - Skills required include a knowledge of the terms and procedures of the design and construction process and a proficiency in the use of word processing and spreadsheet applications used in the production of specifications, reports and associated typing and clerical functions.

D. Additional Services

Any additional services to be provided by the A/E and the compensation for such shall be set out in the Contract. Once the contract is signed, any additional or extra services required will be a change in scope and shall be authorized in writing by the Change Order process authorizing work to be performed. Additional services which do not

stipulate a fixed sum amount for the work shall be subject to audit by the City for a period of three (3) years following conclusion of the Contract.

E. Computer Services

Computerized analyses and designs for building systems, word processing, and data processing utilized by the A/E to provide Basic Services are normally considered by the City to be a part of the project design effort and are not an additional service required by the City. Specialized outside computer analysis services required by the City for the project may be treated as an additional service. The compensation for such specialized computer analyses may be a negotiated lump sum or a reimbursable expense. The allowable reimbursable expense method will normally be the actual charge made by an outside computer service organization plus 10% for A/E overhead and profit.

F. Special Consultants

Consultants engaged by the A/E to augment the A/E's staff to provide the required A/E services are considered by the City to be part of the A/E's staffing for the project. The City may require the use of a special consultant with a particular expertise related to some feature of the project. The Architect / Engineer shall engage such a required consultant, subject to the City's prior written approval, and incorporate such work in the services for the project. The compensation for such consultant shall be negotiated and included in the total A/E fee. The A/E will normally be allowed to mark up the City approved direct cost to the A/E of such special consultant by 10% for the A/E's overhead and profit.

G. Reimbursable Expenses.

1. The costs of telegrams, FAX transmissions, long distance phone calls, and similar expenses incurred by the A/E in the performance of the Contract are considered by the City to be a part of the A/E's overhead expenses and are not normally reimbursable.
2. The City shall reimburse the Architect/Engineer for the reproduction of any requested drawings, specifications, and other documents required for initial schematic, preliminary, working drawing and Bid Set submittals at the actual costs plus 10% markup for handling. If resubmittals are required to correct deficiencies and/or complete the documents for submittal, the cost of reproduction for these submittals shall be borne by the A/E unless waived by the City.
3. Where the A/E is engaged by the City to secure the reproduction of the Bid Documents, the A/E may be reimbursed for the actual direct cost of reproduction plus a markup of 10% to account for the A/E's overhead and handling cost in securing this service for the City. The cost of reproduction and sending addenda to address and/or correct errors or omissions are considered to be an expense of the A/E and shall not be included in the allowable reimbursement costs.
4. The City shall reimburse the Architect/Engineer for the actual costs plus 10% (cost X 1.10) of overnight or second day shipping of submittals and /or shop drawings when such method of shipping is directed by the City. The City should establish a budget amount for such reimbursements and include same in the Contract amount and as a line item in the CONTRACT breakdown of the Fee.

5. For travel and living expenses associated with the performance of the project scope of work reimbursements, the City will agree to actual cost plus 10% (ac x 1.10) and a budget amount with a maximum "Not to Exceed" cost. Guideline for reimbursements shall be set in accordance with the City's travel policy. SCN could budget an amount in the "lump sum" fee and not request reimbursements for travel and living expenses.

6. The A/E may be reimbursed for travel and living expenses of technical personnel while traveling in the discharge of duties in connection with extra services authorized by the City. The travel rates and the per diem rates for lodging and subsistence shall be agreed upon by both parties as part of the Contract documents. Records supporting such requests for reimbursement shall be subject to audit by the City.

7. Each item or account planned for reimbursement should have a "budget" amount established and included in the Contract with the condition that payment for these items will be subject to proper authorization and documentation. Further, the Contract Amount will be adjusted upward or downward by Change Order, as appropriate, based on the actual amounts approved for reimbursement.

34. A/E FEE PROPOSAL

The Architect/Engineer shall prepare a detailed fee proposal. The hourly rates and the man-hours proposed should relate to the rates and times required for a qualified and competent person in that skill level to perform the work. Supplemental information shall be attached as necessary to support the proposed drawings, hourly rates and man-hour estimates. Guides for the use of the form are as follows:

- A. Hourly rates should be the average for those persons in that skill level/discipline/classification.
NOTE: It is generally perceived that a person being compensated at a rate higher than the norm would be more efficient / productive / take less man-hours than a person being compensated at a rate below the norm.
- B. Indicate the drawing size and proposed/estimated number of sheets for each discipline. Attach a proposed or estimated list of drawings.
- C. Enter the Estimated (proposed) number of hours for each discipline/skill level and multiply times the Hourly Rate to yield the Estimate Cost. CADD line is for drafting hours to produce a CADD basic plan for each level, wing or area to use as a base sheet for the various disciplines. The man-hours to produce the individual sheets for each discipline, whether manually or CADD should be shown for the applicable discipline.
- D. Spec/Report Writer effort includes the mark up and edit of standard and/or master specification sections and writing any required special sections.
- E. Typist effort includes typing new specification sections and editing masters on the word processing program.

- F. Cost Estimate effort includes the takeoff of quantities and the application of prices to produce the Cost Estimate in the required format.
- G. Bid Assistance service includes the effort of the Professional to conduct the Prebid Conference, assist in opening Bids, and evaluate the bids / bidders for responsiveness and responsibility. It also includes the clerical level effort to receive document deposits, issue bid documents, receive/review returned bid documents and return deposits / issue refunds.
- H. Shop Drawing Review includes the professional/technical level effort to review shop drawings and other submittals to determine compliance and conformance with the requirements of the Contract Documents and the markup / approval of same. It also includes the clerical level effort to log submittals in and out, to copy markups from the reviewer's master review set to the copies being returned to the Contractor and others, and the distribution of same.
- I. Record Drawing Preparation includes the efforts of a Drafting level person to transfer data from the Contractor's "As Built" set of drawings and specs to the "Record Copy" reproduces. This work also includes the Professional / Technical Level effort to compare the "As Builts" to the "Record Copy" for correctness.
- J. Construction Observation and Administration includes the Professional / Technical level effort to perform the on site inspections / observations, job meetings, payment request evaluations and administrative functions required by the contract and the Clerical level effort to type minutes of meetings and similar functions.
- K. The Additional Services portion of the Worksheet is generally self-explanatory for the items listed. If those items are proposed to be provided by outside consultants / subcontractors (excludes architectural, structural, mechanical, & electrical disciplines which are considered the A/E), the subcontract negotiated amount may be marked up 10% by the A/E for A/E overhead and profit. In-house additional services should be computed using the estimated man-hours and marked up hourly rates similar to the Basic Services Fee Proposal.

35. PROPORTIONING OF THE A/E FEE AND PAYMENTS

A. Phases of the Work

Payments to the Architect or Engineer for Design Phase and Construction Phase Services shall be based on the negotiated fee amount as proportioned for each phase of the project. The amount approved for progress payments shall be based on the City's judgment of the proportion of the work on that phase or facet which has been completed versus the work required / value of that phase or facet. The A/E fee shall be proportioned for each phase or facet of the work and shown in the A/E Contract or in the M O U. The proportioning of the fee should account for and show the negotiated amount for the following phases or facets of work:

- 1. Predesign services (Additional Services such as studies and similar activities.)**
- 2. Design Phase services include**
 - a. Schematic phase
 - b. Preliminary phase

- c. Working drawing phase
- 3. Bidding Phase services**
- 4. Construction Phase services include**
 - a. Shop drawing/submittal reviews and admin
 - b. Site visits, inspections and admin
- 5. Project Closeout**
 - a. Maintenance & Operations Manuals
 - b. Record Drawings
- 6. Budgeted Reimbursable Amounts**
- 7. Additional services (itemize)**

In addition to the proportional amount due for Design Phase or Construction Phase Services, the A/E shall be entitled to payment for authorized additional services performed and for authorized reimbursable costs incurred during the period. Where the City contracts with the A/E for less than or more than the basic services indicated for the various phases, the proportioning of the fee may be adjusted accordingly and shown in the Memorandum of Understanding. Where a detailed breakdown of the A/E fee is not provided, the total negotiated A/E fee (excluding additional services and reimbursables) will be proportioned as follows:

- a. Design Phase Services = 75 % of Total Fee
- b. Construction Phase Services = 25 % of Total Fee

In consideration of the services required by the contract the proportioning of the A/E fee for progress payments during the various parts of the Design Phase and the Construction Phase will be as follows:

B. Design Phase Services

- 1. **Schematic Design Phase** - Value of the Schematic Phase is 17.5% of the Fee. This phase is complete when outstanding issues are resolved, the schematics are approved by the City, and the A/E is authorized to prepare Preliminaries.
- 2. **Preliminary Plans and Specifications (Design Development Phase)** - Value of the Preliminary Phase is 17.5% of the Fee. However, a proportional part may be billed monthly during the development of the documents. This phase is complete when outstanding issues are resolved, and the A/E is authorized by the City to prepare Working Drawings.
- 3. **Working Drawings and Specifications (Construction Documents Phase)** – Value of the working Drawings Phase is 40% of the Fee. However, a proportional part may be billed monthly during the development of these documents. This phase is complete when outstanding issues are resolved, all changes have been made to the documents so that they are ready for bidding, and the working drawings and specifications are approved by the City. Note: The City may withhold as retainage an amount not exceeding 5% of the dollar value of progress payments for the Fee until the Working Drawings, including all corrections required to resolve review comments, are finally completed and acceptable. The A/E shall submit and review with the City and regulatory departments for approval, at the following benchmarks of completion, 35%, 65%, 95% and 100% before proceeding to the next phase.

C. Construction Phase Services

1. **Bidding Phase** - Value of this phase is 5% (maximum) of the fee and is due upon award of the construction contract or rejection of bids (A/E is obligated to redesign at no additional fee. If the bids are over the Not-to-Exceed design cost, see Section 5). Reimbursement for reproduction expenses for bidding documents would also be payable.
2. **A/E Construction Period Services** - Value of this phase is 15% Fee amount.
3. **Project Closeout Phase** - The remaining 5% of the fee (or sum) as stipulated in the Contract for Construction Phase Services is allocated to closeout and Record Drawing preparation. It shall be payable when the A/E's services for the project are fully completed and "Record" drawings and specifications are delivered to City.

36. DETERMINING CHARGES FOR CHANGES IN THE SCOPE OF WORK

A. Changes to the Scope of Services

The City shall notify the A/E in writing when a change in scope or “extra services” are required. The City and A/E shall develop a defined scope for the services and the A/E shall prepare a fee proposal for such work. A lump sum fee will normally be negotiated and agreed on and a written change order issued before the extra work is performed (i.e., changes in the plans or specifications, models, studies, etc.). In such cases, the fee negotiations will be based on the defined scope change or work to be done, the estimated technical personnel time to accomplish the work times the rates listed in the Memorandum of Understanding, and any reimbursable expenses authorized. When the scope cannot be defined to allow a reasonable estimate of time required, the City may authorize the additional work at the hourly rates or unit costs listed in the Memorandum of Understanding. In such cases, the City shall establish maximum fee limits, as applicable. Work beyond the maximum fee limit shall require justification and the City's approval prior to proceeding with further additional work.

B. Hourly Rates for Changes in Work

The City and the A/E shall at the time of fee negotiations establish and record in the Memorandum of Understanding the nominal hourly rates for all technical personnel categories, disciplines and/or skill levels to be used to calculate A/E fees for extra services or changes in the work. The hourly rates listed shall include all markups and adjustments for taxes, insurances, benefits, overhead, profit, etc. Technical activities by principals, such as Project Manager, Architect, or Engineer, are categorized for payment at the rates indicated for the technical activity or function being performed.

C. Overtime for Changes in Work

No overtime requiring rates higher than regular rates shall be considered for payment for additional services. Consideration of the time for approved personnel when traveling in connection with the project (when such travel is required by the Contract and authorized in writing by the City) shall be construed to be time engaged on the project up to the

completion of an eight (8) hour workday.

D. Invoices for Changes in Work

Invoices or statements of expenses incurred by the A/E for reimbursables and for work authorized to be performed on an hourly rate or unit cost basis shall be rendered to the City monthly. Invoices shall be supported by a certified accounting of the time expended by date, by person, and the skill level of the work being done. (e.g. Drafting would be paid for at the “drafting” rate regardless of who does the work – principal, draftsman or trainee.) Statements shall show the cost during that period and indicate the status of the authorized work. The reporting of these costs shall be in such form and detail as required by the City. The A/E’s disbursement and job records shall be subject to audit by the City for work done on a reimbursable and/or hourly or unit cost basis. The City shall notify the A/E of any defect or deficiency in the invoice including supporting data within ten (10) days after receipt of same, and payment of approved invoices, or portions thereof, shall be made within 30 days after receipt of the invoice.

E. Audit of A/E's Records

Any Change Order authorizing work to be performed which does not stipulate a fixed sum amount for the work shall be subject to audit by the City for a period of three (3) years following close out of the Contract. Also, any authorization for payment of reimbursable expenses shall be subject to audit by the for a period of three (3) years following close out of the Contract.

SECTION 2: DESIGN DOCUMENT STANDARDS & REQUIREMENTS

37. GENERAL

A. Drawing Standards

Contractors, Subcontractors, Suppliers and Vendor bidders rely on bid documents to be consistent in format, presentation, terminology and terms and conditions. The following clarifies the requirement. Do not reference both manufactured products and performance criteria because conflicts in the performance criteria and the product performance create unnecessary conflicts. Sole source and proprietary specifications are not allowed without prior written authorization. Each page/sheet/sketch/drawing of any addenda shall show the A/E seal, the project title, the addendum number, the addendum date, and the page or sequence number, standards, and expectations applicable to drawings prepared for bidding and construction on City projects.

B. General Requirements

The Title sheet(s) shall clearly indicate the following information:

1. The Project Title:
 - a. The activity or function(s) to be performed in the facility;
 - b. The version (date) of the VUSBC on which the design is based;
 - c. Other major code used as a basis for design;
2. Use Group Classification(s);
 - a. Maximum VUSBC occupancy for each level and total for the building;
 - b. VUSBC Classification of Construction and Type;
 - c. Area for each floor and for entire building and volume of building;
 - d. Predominate Floor Design Live Loads;
3. Index of Drawings;
 - a. Location and Vicinity Maps;
 - b. Seals of the responsible Architect and Engineers, signed and dated.
4. Indicate the number of beds (dormitory or hospital), fixed seats (auditorium) or parking spaces (parking deck), and other information relating to capacity of the facility as applicable.
5. Provide a master listing of all applicable abbreviations and symbols used in the set of drawings or provide a listing of all common abbreviations and symbols at the beginning of the drawings and provide a listing of the discipline specific abbreviations and symbols at the beginning of each discipline.
6. Building Floor Plan drawings for all disciplines shall be oriented the same to avoid confusion and to facilitate overlaying of drawings.

7. Topographic and site drawings shall conform to the approved site plan and shall show building location by dimensions, present and approximate finished grades, roads & walks, temporary & permanent erosion and sediment control devices, and storm water management facilities.
8. Foundation and floor plans shall be drawn to a scale not less than 1/8" = 1'-0" with all necessary dimensions shown.
9. Roof plans are preferred at 1/8" = 1'-0" scale; however, roofs without mechanical equipment and metal / shingled pitched roofs may be drawn at a 1/16" = 1'-0" scale.
10. Foundation, floor and roof plans shall show all permanent equipment vents, utility or pipe penetrations, openings and such items affecting the construction.
11. Information plans to scale shall be furnished to the City to clearly show the location and arrangement of built-in equipment/casework and of the furniture, fixtures, equipment, etc., which influence the location of utilities, including electrical, plumbing, heating, etc., and the assignment of space within the project.
12. It is understood that the sub-contractor will be providing the fire sprinkler piping schematic for A/E approval.

The existence of a fire sprinkler system will be clearly outlined and performance specified in the Construction Documents (to include the Ceiling Plans). The final head layout provided by the Fire Protection subcontractor will be submitted once available and must be approved by the building Official and Fire Marshal.

13. Design live load capacity for all floors and the roof in pounds per square foot shall be noted on structural floor plans.
14. All elevations shall be drawn to scale at not less than 1/8" to 1'-0".
15. A minimum of one transverse and one longitudinal section through the building shall be shown along with as many additional sections as are needed for understanding the plans.
 - a. Include necessary dimensions on each.
 - b. Typical wall sections shall be drawn at not less than 3/4" = 1'-0" scale.
 - c. Typical window, door and special opening details shall be drawn at 1 1/2" = 1'-0" scale or larger.
 - d. Provide all necessary interior and exterior details, including special doors, windows, woodwork, paneling or other decorative work, toilets and washrooms, etc., with plans and elevations at a minimum scale of 1/4" to 1' and with construction details at a minimum of 3/4" to 1'.
 - e. Provide stair sections for each stair configuration including dimensions, sizes, framing members, components, and any special details required.

- f. Door schedules shall include door number, label or type, size, material, frame, lintel, remarks. Also provide elevation and detail references.
- g. Window schedules shall include make or type, size, material, lintel remarks. Also provide elevations and details, if required for complete description.
- h. Finish schedules shall include space or room number, space name, floor finish, wall type/finish, ceiling type/finish, ceiling height, base, wainscot, remarks, and other columns, if required.
 - 1) Mechanical equipment room plans shall be drawn at 1/4" = 1'-0" scale minimum.
 - 2) Provide one longitudinal section and one transverse section through the building (minimum) to show mechanical work with relation to the work by other disciplines.

C. Arrangement of Drawings

Drawings shall be arranged in the following order with the discipline identifying character shown:

- T - Title Sheet and Index
- C - Plot and/or Site plans
- C - Sanitary and Civil
- B - Boring logs
- L - Landscaping
- D - Demolition
- A - Architectural
- S - Structural
- FP- Fire Protection Information
- SP- Sprinkler Systems, Standpipes, and Accessories
- P - Plumbing
- M - Mechanical (heating, cooling, ventilation, etc.)
- E - Electrical
- R - Asbestos Abatement

D. Sizes of Drawing Sheets

Drawing sheet size, except in special cases approved by City, shall be 24" by 36" (preferred) or, alternatively, 30" by 42". Drawings shall be prepared so as to be suitable for making clear, legible half-size reproductions.

E. Drafting Media

Completed manually drawn working drawings will be in pencil or ink on polyester drafting film with a minimum base thickness of .004 inch matted both sides. The A/E must furnish his own drafting film. Completed computer generated working drawings shall be in ink on vellum or on drafting film (as selected by the A/E) suitable for reproduction. Record drawings showing the As-Built conditions shall be provided to the City on polyester drafting film with a minimum base thickness of 0.004 inch (4 mil) matted both sides.

F. Orientation

It is customary for a building plan to be oriented with the main entrance toward the bottom or right edge of the sheet, depending upon the building shape. All plans shall have a North Arrow for orientation. All discipline building plans shall be consistent in orientation insofar as practicable.

G. Lettering

Unnecessary letter embellishments, poor spacing, careless lettering, weak lines, and lettering which is crowded or too small result in illegible films and poor reproductions. The minimum height for hand lettering on all projects shall be 1/8". Mechanical (typed or CADD) lettering shall be 1/10" minimum and in all caps. Make minimum gap between lines equal to one-half the letter height. Lettering and line weight must be in accordance with the above.

H. Section and Detail Designation

The standard section symbol below will be shown both where the section or detail is cut and where the section or detail is drawn.

A3 A5

**SHEET NUMBER
WHERE SECTION,
ELEVATION OR
DETAIL IS TAKEN
SHEET NUMBER
WHERE SECTION,
ELEVATION OR**

A1, A2

**DETAIL IS DRAWN
ADDITIONAL SHEET REFERENCES
NUMBER INDICATES "SECTION";
LETTER INDICATES "ELEVATION" OR "DETAIL"**

STANDARD SECTION, ELEVATION OR DETAIL SYMBOL

NOTE: SYMBOL SHOULD ALWAYS APPEAR AS PART OF TITLE, PLACED UNDER THE VIEW

I. Scales

An indication of the scale of the object drawn shall be located directly under the title of each plan, elevation, section, detail, etc. (Example: Scale 1/8" = 1'-0"). Closely related groups of details having identical scales and tied together with a common title may receive a single indication of scale under their title. Each drawing shall, as a minimum, have a graphic scale shown for the predominant scale used on that sheet.

J. Drawing Numbers

Drawings shall be sequenced by discipline letter (as indicated in paragraph 802.2) and number, i.e., A-1, A-2, A-3.1, A-3.2, S-1, S-2, etc.

K. Relation of Drawings and Specifications

Drawings generally indicate the scope of work, locations, relationships, and dimensions while specifications generally indicate quality, performance and installation requirements. Drawings and specifications shall supplement each other and must not conflict. Terminology used in specifications and drawings should be the same.

L. Boring Log Presentation

Boring logs representing soil conditions encountered in the site investigation including pertinent logs from previous explorations in the project location shall be presented on the drawing(s). Logs shall show the ground elevation, the depths of borings, depths and classifications/descriptions of materials encountered, blow counts per ASTM D-1586, ground water elevation, and other pertinent information. Boring locations relative to the project shall be shown on a small scale location plan or on the Site Plan. Boring logs may be photocopied to stick-on transparencies and securely and neatly organized on the Boring log sheet if legible and suitable for microfilming.

M. Seals

Since working drawing submittals are, in the opinion of the A/E, complete and ready for bid, all drawings submitted for working drawing review shall bear the Virginia seal of the individual or individuals responsible for its design. Asbestos drawings and specifications shall have the name, signature and Virginia license number of the asbestos project designer shown on each asbestos drawing sheet and at the beginning of the asbestos specifications section.

N. Date

ALL DRAWINGS AND THE SPECIFICATIONS shall be dated with the **SAME DATE** which is established by the A/E as the date the documents are (or will be) complete, sealed and ready for bid. Documents printed for bidding shall bear the date described above with **NO REVISION NUMBERS OR DATES**.

O. CADD Drawings on Diskettes

The City may require the A/E to prepare the drawings on CADD and to provide the City with one copy of the completed drawings on Compact Disks "CD" CD-ROM in "DXF" or "AutoCAD Release 14" format **OR OTHER FORMAT SPECIFIED BY THE CITY THAT IS 100 PERCENT COMPATIBLE WITH THE CITY'S HARDWARE AND SOFTWARE**. The A/E shall provide the City with any special fonts or symbol libraries.

P. Limits of the Work

The drawings shall describe and show the Work to be provided by the Contractor. Existing features, structures, or improvements to remain shall be so noted. Existing features, structures, or improvements to be demolished and/or removed shall be noted or identified.

38. SPECIFICATION STANDARDS

A. General

Specifications shall clearly define the quality, performance, and installation standards for the Work and the conditions under which the Work is to be executed. They shall be in sufficient detail to describe without ambiguity, the materials, equipment and supplies, and the methods of installation and construction. Required tests and guarantees shall be indicated in the specifications.

B. Project Manual/Specifications Arrangement

Specifications shall be on 8 1/2" by 11" sheets with bid sets preferably printed on both sides of the sheet. Type print size shall be suitable for microfilming and shall not be smaller than 12-pitch type size. The table of contents pages shall be dated with the same date as the drawings and shall be sealed and signed. The Project Manual shall include:

1. Notice of Invitation to Bid
2. Instructions to Bidders.
3. Bid Form
4. Supplemental General Conditions, if applicable.
5. Contract Between City and Contractor
6. Workers Compensation Insurance Certificate
7. Standard Performance Bond
8. Standard Labor and Material Payment Bond
9. Schedule of Values and Certificate for Payment
10. Affidavit of Payment of Claims
11. Certificate of Completion by Architect/Engineer and Certificate of Partial or Substantial Completion by Architect/Engineer
12. Final Report of Structural Special Inspections
13. Certificate of Completion by Contractor
14. Certificate of Partial or Substantial Completion by Contractor
15. List of Drawings
16. Submittal Register Format
17. Structural and Special Inspections List
18. Division 1 - General Requirements, Special Conditions, etc.
19. Technical Specifications (Divisions 2 - 16 Applicable Sections)
 - a. Technical Specification Sections shall be numbered with appropriate five digit section numbers corresponding to the CSI Masterformat Broadscope numbering system.
 - b. Technical Sections should, where possible, be subdivided into the Part I - General, Part II - Products, Part III - Execution format.
20. Appendices containing Soils Report, Asbestos Report, Lead-based Paint Report and/or other information pertinent to the project but not a part of the Work should be noted as "INFORMATION ONLY" for use by the Contractor as he deems appropriate.

39. STANDARD REQUIREMENTS FOR BIDDING CONSTRUCTION

Standard Requirements for Bidding Construction is a standard document required to be incorporated in the documents for all building related construction, renovation, addition, and/or repair projects for which plans and specifications are prepared.

The A/E shall be familiar with the requirements and provisions of the General Conditions and the Instructions to Bidders and shall coordinate the requirements in the Specifications.

“Supplemental General Conditions” modify, amend or delete specific portions of the General Conditions. Where it is necessary to modify or amend a section of the General Conditions, the changes shall be set forth and labeled “Supplemental General Conditions.”

The “Special Conditions” set forth specific requirements which are peculiar to the specific project. These include such items as hours of work restrictions, Contractor office and storage area restrictions, coordination requirements for utility interruptions, hazardous material data sheet submittals, and so forth. The Special Conditions shall be included in Division 1 of the Technical Specifications.

The General Conditions may be included in the Project Manual by reference. However, the Notice of Invitation to Bid and the Instructions to Bidders must state where the General Conditions are available for inspection and from whom the prospective bidders may request and receive a copy of the General Conditions. The entity tasked with issuing the documents for bidding shall be listed as the source for obtaining a copy of the General Conditions if not included in the bid documents.

40. TYPES OF SPECIFICATIONS

The three (3) types of specifications used on City projects are:

A. Non-proprietary and Performance Specifications

This is the preferred method of specifying materials, equipment and systems. A nonproprietary specification shall be written either as (a) a generic performance specification (preferred); or as (b) a specification naming a minimum of three manufacturers with model or series numbers.

- 1) A generic performance specification must be written to describe the required characteristics, performance standards, capacities, quality, size or dimensions, etc. of the item or system. A minimum of three manufacturers must be able to meet all requirements shown in the specification. The specification shall not be contrived to exclude any of the three manufacturers or to benefit any one manufacturer over any of the other manufacturers or brand name products.
- 2) A non-proprietary manufacturer/model number type specification must list three manufacturers with their respective model numbers. Each of the listed manufacturers/model numbers must have been determined by the A/E to meet the specifications and be acceptable to the City with regard to the products performance or suitability for the project. If a named manufacturer prepackages or pre-assembles its item or system, the model number shall be specified. If the named manufacturer(s) custom builds the item or system, naming of model numbers is not required. The manufacturer/model specification must describe the required characteristics, performance standards, and capacities which will be used to determine equal products. Do not specify extraneous characteristics that do not relate to the products performance or suitability for the project. If only two acceptable manufacturers can be found and documented by model number but other equal products are acceptable if found by the bidder, the A/E may request

permission from the City to list only those two manufacturers but consider equals if proposed by the Contractor.

B. Proprietary Specifications

A specification is proprietary if it specifies a product /requirements which only one manufacturer can meet but the product is available from multiple vendors or sources. Although a proprietary specification should be avoided because it restricts competition, circumstances such as space limitations, mandatory performance standards, and/or compatibility with an existing system may require its use.

Two typical situations that may require proprietary specifications are:

1. When only two manufacturers or suppliers provide an acceptable product or system, when there are no equals and when no substitutions are allowed; or
2. When there is only one manufacturer but two or more vendors or suppliers can purchase the material and compete to provide the product or system to contractors or bidder.

C. Sole Source Specifications

A specification is sole source when it names only one manufacturer or product to the exclusion of others, or when it is contrived so that only one manufacturer, product, or supplier can satisfy the specification and with the Director of Purchasing's written approval. Because it eliminates all competition, it can be used only in the most exceptional circumstances and under the strictest conditions. A product, piece of equipment or service which is available only thru an area franchised vendor is also considered to be a Sole Source item.

41. USE OF STANDARD OR GUIDE SPECIFICATIONS

The use of standardized specifications or guide specs as a basis or resource for editing has many advantages for the A/E, the Reviewer and the Contractor. Performance guide specifications prepared by Masterspec, Spectext, the U. S. Navy and the Corps of Engineers are acceptable for editing. These guide specifications are available from the AIA, the CSI, the National Institute of Building Sciences in Washington, D. C., and other sources for use with various PCs and word processing programs. The A/E shall edit the guide specifications to include only the materials, requirements, and procedures applicable to the project.

42. RESTRICTIVE SPECIFICATIONS AND PERFORMANCE REQUIREMENTS

The A/E shall not require samples, shop drawings, or similar materials to be submitted for approval prior to receipt of bids. The specifications must contain sufficient information to describe to the contractor and bidders the performance and quality standards that will be used to evaluate the submittals.

Number of years of experience, or time in business, shall not be specified as a basis for award of contract. This applies not only to contractors, but also suppliers of equipment.

Complex and/or sensitive systems such as locking systems, detention equipment and security control systems for prisons often require manufacturers with a proven history of reliable, operable equipment in special situations with minimal malfunctions, as well as subcontractors who are experienced installers of that manufacturer's products. In such instances, the City and A/E should develop the necessary documents to prequalify the manufacturers and/or subcontractors prior to bidding. The names of those prequalified shall be listed in the bid documents for use by all general contract bidders.

43. PHRASEOLOGY

Specifications must clearly indicate the requirements for the project. Words or phrases which are vague or may be interpreted more than one way often lead to problems during bidding or construction and result in change order claims/requests. The following instructions are intended to reduce common errors and conflicts evolving from interpretations of the specifications.

- A. Under "Requirements," do not say "the Work consists of ...". Drawings should show the entire scope of the Work. If necessary to list certain parts, say "Generally, the Work includes...".
- B. In lieu of reference to the accompanying drawings, use the words "as shown," "as indicated," "as detailed" or "as approved by ...," "as directed by ...," "as permitted by...".
- C. Do not use "etc." This term is too indefinite for bidding and inspection purposes.
- D. Minimize the use of cross references and in no case use paragraph numbers for this purpose. If necessary to refer to a particular paragraph, do so by its section number and title (e.g. Section 03300, Cast-in-Place Concrete).
- E. Do not set up a paragraph in the various sections entitled "Work not Included." Describe the work that is included under the respective sections.
- F. Specifications should clearly delineate air conditioning ducts, heating ducts and piping systems which are required to be insulated. The phrase "insulating all ducts except in conditioned spaces" has resulted in differences of opinion and claim situations. All duct systems should be appropriately designated as supply, exhaust, outside air intake, transfer, relief, or return and further clarified by stating insulating requirements.
- G. Do not confuse any and all; "Correct any defects" should read "correct all defects" Do not confuse either or both; e.g., "Paint sheet metal on either side" should read "Paint sheet metal on both sides". "Either" implies a choice.
- H. Do not confuse "or" and "and"; e.g., "The equipment shall not have defects in workmanship and material." The use of "and" in this sentence indicates both requirements must be met; e.g., "Additives that decrease strength or durability are

not permitted.” The use of “or” implies either condition would disqualify the additive.

- I. Do not use “and/or”. The courts have considered this phrase to be intentionally ambiguous and, therefore, claims are often rendered in favor of the Contractor.
- J. Use statements that are definite and contain no ambiguous words and phrases. “Remove” implies to take away from its current location. If “remove” is used, the A/E must also indicate whether to dispose of, salvage or re-install the material “removed”.
- K. “Reinstall” implies put existing back in indicated place. If “reinstall” is used, the A/E must also indicate that the Contractor must carefully remove the item, properly store it, and then “reinstall” the item at the appropriate time.
- L. “Replace” implies removal of old material and furnish and install new material. The preferred wording would be to “remove ...” and “provide ...”.
- M. “Provide” is defined as “furnish and install”. When material or equipment is “furnished” by the City directly or under other contracts for installation by the Contractor, the term, “install” should be used; however, the Contractor may be required to “provide” foundations, fastenings, etc., for the installation. If the word “install” is used alone, the Bidder or Contractor has a right to assume, on the basis of the definition cited, that the City will “furnish” the materials in question.

44. SPECIFICATIONS ON DISKETTE OR CD-ROM

The City may require the A/E to provide the City with one copy of the final completed Divisions 1 thru 16 specifications including addenda on diskette or CD-ROM in Microsoft Word (Version 7.0 or later). The City shall specify the software preference in its notice to the A/E.

45. HARDWARE SPECIFICATIONS AND SCHEDULES

Hardware specifications and schedules may be written to specify the applicable Builders Hardware Manufacturer's Association (BHMA) / American National Standards Institute (ANSI) standards and designations or the specifications and schedules may be written by specifying three manufacturers and model numbers for each item. In either case the specifications must give sufficient information of the type, size, function, finish, etc., for the vendor to know what is required and for the A/E to evaluate the submittals.

46. COST ESTIMATE STANDARDS

A detailed cost estimate consistent with the level of design is required from the A/E with each submittal. A Building Cost Summary form shall be completed indicating the estimated cost of each system included in the project. In addition to a printed copy of the Building Cost summary form and estimate backup/details, provide an electronic copy of the completed Building Cost Summary with each estimate. The system quantity, system unit cost and unit cost per building square foot shall be shown on the form. Backup

estimating information, including quotes of estimated cost for major items of equipment or built-in systems, shall accompany the Building Cost Summary form. An independent cost estimate is required with the preliminary submittal. On large projects, where construction cost versus budget is in doubt, the City may also obtain an independent cost estimate based on the final plans and specifications.

47. SCHEMATIC DESIGN/PROJECT CRITERIA

A. Basis of Design Narrative

The Schematic Design shall include a Basis of Design Narrative which provides the following information:

1. Capacity and type of occupancy - Functions to be housed in the building - Proposed building location on the site
2. Exterior Circulation - How this project will work with other area facilities
3. Areas and/or capacity required for various activities proposed for building
4. Indicate the type of construction proposed: fire resistive, protected or unprotected noncombustible, etc. and VUSBC Type #
5. Outline description of basic materials
6. Future construction or expansion to be accommodated, if any
7. Style and character of building desired
8. Structural Design Live Loads, Wind Loads, and Seismic Criteria used
9. Type of foundation system selected
10. A description of the types of HVAC systems being evaluated, estimated heating and cooling loads, fuels evaluated and fuel selected to be used
11. Total square foot area per floor and per building
12. Total cubic foot volume
13. Number of beds, seats or parking spaces, where applicable
14. Total estimated construction cost based on the schematic documents
15. Total proposed project budget

B. Schematic Drawings

The following drawings shall be included as a minimum:

1. Floor plans consisting of single line drawings of each floor layout showing space names, nominal room sizes, and circulation paths
2. Roof plan
3. Longitudinal building section with floor to floor and floor to ceiling dimensions
4. Transverse building section
5. Exterior elevation views
6. Structural plan of a typical supported floor framing scheme and a typical section showing the proposed components of the floor system
7. Orientation and approximate location of proposed roads, walks and parking on a site plan
8. Any other information that would be of value to the City and the Architect/ Engineer reviewing the project.

C. Verification of Existing Conditions

The A/E shall visit the site and ascertain pertinent local conditions which must be addressed in the design.

48. PRELIMINARY DESIGN (DESIGN DEVELOPMENT PHASE)

A. General Requirements

Based on the previous approvals and direction, the A/E shall prepare the Preliminary Design consisting of drawings and other documents to fix and describe the size and character of the entire Project as to exterior appearance; foundation, structural, mechanical, and electrical system; materials; and such other essentials as may be appropriate. The A/E shall have visited the site and ascertained pertinent local conditions required to be addressed in the submittal. If any change from the information submitted at the schematic stage relating to the mix or amount of space occurs, submit new information, or a listing of the Assignable Rooms and Spaces which was used as the basis for development of the Preliminary Design.

B. Preliminary Cost Estimate

The A/E shall submit to the City an estimate of the construction cost of the proposed design without regard to available funds. The estimate shall relate only to the estimated bid amount for the construction shown and shall not include fees or unknown contingencies. The cost estimate summary shall include any built-in equipment, even if such equipment is bid separately. Any proposed additive bid items must be justified and indicated by a separately stated estimate amount. The cost estimate must indicate the derivation of the pricing for the estimate. The A/E shall also submit a take-off of the building areas of new construction and of renovated space. Utilities, site work, civil and other special projects such as boiler installation; a utility system; load system; a water plant; a wastewater plant; a refrigeration or chiller installation; etc. must be estimated on a quantitative basis for the major components and a lump sum estimate for the remainder. Preliminary submissions shall be deemed to be incomplete if the above are not included.

C. Review Process

The A/E shall prepare and submit to the City, in quantities specified, black line or blue line prints of all drawings together with copies of cost estimates, reports and other data as set forth below. After the City reviews the submittal, one set of review comments and/or marked copies of the documents will be provided to the A/E by the City for response and/or resolution. The submittal documents along with the review comments and the agreed upon resolutions of the comments shall be the basis of the approval for the A/E to prepare the working drawings.

D. Preliminary Submittal Requirements

The following information, data and drawings shall be acceptable for a Preliminary submittal:

1. Basis of Design Narrative describing the project scope, the functional and operational criteria to be met, the justification for the decisions or choices made, and any proposed deviations from the standards.
2. Building Systems and Equipment Checklist.

3. Project Cost Estimate by the A/E. Cost Estimate shall be assembled by Building System with level of detail commensurate with the level of design and material sizing at this stage.
4. An Independent Cost Estimate may be obtained by the City. The A/E shall provide the necessary information to the Independent Cost Estimator to support the details of design. Cost Estimate shall be a detailed estimate assembled by Building System.
5. Soils Report to include boring logs, geotechnical analysis and foundation design recommendations.
6. Calculations from each discipline involved. Show design criteria, loadings, assumptions, evaluations and comparisons of alternative systems, cost factors and other considerations which support the systems selected and shown on the drawings. Provide Design Data required for Fire Safety review.
7. Preliminary Drawings as described below.

49. GENERAL REQUIREMENTS FOR PRELIMINARY DRAWINGS

Preliminary drawings shall show the following information unless such information is not applicable to the project:

A. Title Sheet(s)

1. Project Identification.
2. Location and vicinity maps.
3. Tabulation of floor areas (new and renovated), total area, volume.
4. Tabulation of units: Number of parking spaces, auditorium seats, bedrooms etc.
5. Listing of applicable codes with dates.
6. Building Purpose/Occupancy.
7. Use Group(s) per VUSBC.
8. VUSBC Construction Type
9. Occupancy Load(s) per VUSBC.
10. Index of drawings.

B. Site Plans

(Site/improvement plan & composite utility plan minimum for new construction and additions; should be based on approved comprehensive Master Plan.)

1. Scale and north arrow.
2. New and existing contours affected by work.
3. Floor and contour elevations.
4. Applicable boundaries with survey computations.
5. Dimensioned relationship of new work to boundaries and existing structures.
6. Location of test borings.
7. General parking and handicap parking.
8. Handicapped-accessible routes.
9. Pedestrian traffic routes.
10. Demolitions: structures, walks, utilities, trees, etc.
11. Proposed landscaping (planting materials)

12. Existing and new utilities: storm sewers, sanitary sewers, water supply, gas, steam distribution pipes and tunnels, electric and telephone poles and lines, hydrant locations and data on fire flow test.
13. Site improvements such as fencing, lighting, etc.
14. Typical paving section for proposed types/thicknesses.
15. Identify/show special earthwork recommended and construction considerations noted in soils report.

C. Demolition drawings

1. For interior demolition

- a. provide information on work to be removed;
- b. note results of asbestos survey; and
- c. note results of lead based paint survey.

2. For total building demolition

- a. provide a floor plan showing building size;
- b. describe existing material /construction to be removed;
- c. show an elevation (drawn or photographic) of building;
- d. note results of asbestos survey; and
- e. note results of lead based paint survey.

D. Architectural drawings

1. Floor Plans (for each floor)

- a. Plans of each floor at 1/8" = 1'-0" preferred (1/16" = 1'-0" must be justified and have written approval of BCOM)
- b. Overall dimensions.
- c. Space names and/or numbers
- d. If the work is an addition, show the relationship of new to existing spaces.
- e. Distinguish new from existing construction.
- f. Show demolition on the architectural plans or separate plans.
- g. Indicate asbestos locations regardless of who removes it or how it is removed.
- h. Indicate all openings, entrances, delivery areas.
- i. Indicate handicap access and Areas of Rescue Assistance.
- j. Show scale and north arrow.

2. Roof Plan

- a. All proposed and existing drains.
- b. Roof slope: 1/4" per 1'-0" to drain minimum for all areas (unless waived for reroofing).
- c. Indicate slope (high to low) with direction arrows
- d. All new and existing equipment.
- e. All significant roof penetrations and structures.
- f. Identification of materials on existing roofs.
- g. Typical roofing section identifying materials.
- h. Access to roof.

3. Exterior Elevations (Scale 1/16" = 1'-0" minimum).

- a. All openings: windows (including operable notation), doors, louvers, vents.
 - b. Percentage of glass vs. gross wall area.
 - c. Floor elevations (above sea level).
 - d. Identification of all major finishes.
 - e. All stairs, ramps, and railings.
 - f. Rooftop equipment and structures.
 - g. Expansion and control joints.
 - h. Grade at the face of the building wall.
 - i. Subsurface construction (dotted in).
 - j. Existing and new work clearly distinguished.
- 4. Small Scale Sections (Scale: 1/16" = 1'-0" minimum)**
- a. One longitudinal and one transverse section minimum.
 - b. Show all floor levels on sections.
 - c. Indicate ceilings in proper relation to floors.
 - d. Method and extent of insulating exterior envelope.
- 5. Detail Sections (Scale: 3/4" = 1'-0" minimum)**
- a. One section for each type of wall construction.
 - b. Identify all major materials and components.
 - c. Identify insulation and note "R" value.
- 6. Finish Schedule**
- a. May be included in the Basis of Design narrative or on drawing. Indicate proposed finishes for all spaces. Note those existing finishes to remain.
 - b. Give ceiling heights of interior spaces.
- 7. Furnishing/Equipment Plans**
- a. Show all major equipment to approximate scale.
 - b. Show all built- in furnishings to scale.
 - c. Show on these plans or on separate furniture information plans, furniture/furnishings outlines that the space was designed to accommodate.
- 8. Structural Drawings**
- a. Show Live Loads, Wind Loads, and Seismic Criteria used for structural design.
 - b. Show design bearing / support capacity (soil bearing, pile capacity, caisson capacity) for foundation system.
 - c. Foundation Plan indicating type & tentative sizes.
 - d. Foundation details of improved bearing strata and other special requirements.
 - e. Floor Framing Plans of each level indicating type of system and tentative member sizes/depths and column spacing.
 - f. Roof Framing Plan.
 - g. Typical Section(s) of framing identifying materials, thicknesses, depths.
 - h. Typical Section of floor system.
 - i. Details of connections to existing buildings, if applicable.
 - j. Identify elements of proposed lateral force resisting system.
 - k. Fire Protection (FP) Information.

- l. Fire Detection and Alarm Systems.
- m. Fire Suppression Systems – Sprinklers.
- n. Fire Suppression Systems – Clean Agent.
- o. Sprayed-on Fire Proofing Design & Specification.
- p. Fire Pumps.
- q. Smoke Control.

9. Plumbing Drawings

- a. Plans of each floor noting fixture locations and types. Indicate routing of main distribution lines with tentative sizes.
- b. Show general or schematic arrangement of all piping systems.
- c. Show location of water, sanitary sewer, storm sewer and sprinkler services to the building.
- d. Show tentative fixture schedule.
- e. Show location, sizes and types of Hot Water Heaters/ Heat Exchangers, Storage Tanks, and flues if required.
- f. Show gas piping layout and connected load, if applicable.

10. Mechanical (HVAC) Drawings

- a. Plans of each floor showing single line duct layouts, tentative air (supply, return, exhaust) quantities, equipment locations, and layouts and general routing of heating/cooling piping.
- b. Show equipment schedules with tentative sizes, capacities, ID #, features, etc.
- c. Indicate locations and sizes of fans, pumps, compressors, conveyors, etc.
- d. Schematic layout and elevation of equipment room and/or central system showing configuration, tie-ins, etc. as necessary to describe system.
- e. Central heating or cooling plants, distribution piping, equipment.

11. Electrical Drawings

(Power and lighting plans may be combined if product clearly conveys required information.)

- a. Lighting plans for each floor showing approximate fixture location, type, and lighting level required (in foot-candles).
- b. Power distribution plans showing location of incoming service, generators, and panelboards.
- c. Show interface points for communications, fire alarm, EMCS and other pertinent systems.
- d. Floor proposed locations for receptacles, telephone outlets and switches.

E. Working Drawings Phase (Construction Data Documents Phase)

1. General Requirements for Capital Projects

The A/E shall visit the site as necessary to ascertain pertinent local and site conditions. Based on the preliminary plans (Design Development Documents) including the review and the value engineering comments and resolution thereof, the A/E shall prepare the working drawings and specifications. The working drawings shall set forth in detail the requirements for the construction of the entire project and include the applicable bidding

information. The A/E shall assist in the preparation of the bidding forms, the Special Conditions of the Contract, and the Contract Between City and Contractor.

Specifications and drawings for any type of built-in equipment must be submitted with the working drawings for the building, whether or not such equipment is to be procured under another contract, in order that such work can be coordinated and bid on at the same time. If any change from the information submitted at the preliminary stage relating to the mix or mount of space for institutions of higher education is made, the City shall submit new information in accordance with the format shown on the sample form entitled Project Space Profile. The A/E shall include on the working drawings and in the specifications all necessary information to describe the components for the fire-resistive rated construction assemblies and fire protection systems needed to provide the necessary fire integrity of the structure for compliance with all applicable governing Codes

2. Cost Estimate

The A/E shall submit a detailed Cost Estimate, in conformance with the requirements of the Scope of Work, and advise the City of any adjustments to previous statements of estimated construction cost. The A/E shall submit a signed Building Cost Summary Sheet with the estimated cost of work covered by the working drawings and specifications and square footage of the proposed building data completed. If this data varies significantly from that shown on the Preliminary Cost Estimate, the A/E will attach an explanation to the working drawing Cost Estimate. For large projects, the City may choose to have an independent cost estimate made using copies of the working drawings and specifications. This may be beneficial in determining if the project is likely to be within budget and in determining sufficient clarity and detail of the documents for bidding.

3. Permits and Utilities

The A/E shall assist the City in filing the required documents for approval of governmental authorities having jurisdiction over the project. If the Contractor will be required to interface with, coordinate with, or obtain inspection or approvals from any local authority or utility, the requirements and the name and address of such entity shall be shown in the documents.

4. Calculations

Calculations must be organized, indexed, numbered and submitted for each discipline involved. Design calculations should indicate assumptions, considerations and factors involved in the design and support the design shown on the plans and specifications. Provide one copy of the completed design calculations of each discipline to provide one copy to the City's facilities office.

5. Submittal Documents

Working drawings shall be complete, coordinated, and ready for approval to bid. The working drawings including the specifications shall bear a uniform date. The drawings shall consist of Architectural and Engineering drawings in such detail as to show clearly the work to be performed. These drawings shall be planned to produce a set of plans with all disciplines coordinated to describe the work required. Architectural and engineering

details shall be included on the drawings with cross references on both the plan and the detail sheets designating specifically the location to which the particular detail applies. Do not include details which do not apply to the particular project.

Working drawings shall show or provide the following information: Title Sheet(s)

- a) Project Identification.
- b) Location and vicinity maps noted to show project location.
- c) Tabulation of floor areas (new and renovated), total area, volume.
- d) Tabulation of units: Number of parking spaces, auditorium seats, bedrooms etc.
- e) Listing of applicable codes with dates.
- f) Building Purpose/Occupancy.
- g) Use Group(s) per VUSBC.
- h) Type of construction and VUSBC Type #
- i) Occupancy Load(s) per VUSBC.
- j) Design Floor Live Loads.
- k) Index of drawings.

Site Plans (site/improvement plan & composite utility plan minimum requirements for new construction and additions):

- a) Based on approved comprehensive Master Plan.
- b) Scale and north arrow.
- c) New and existing contours affected by work.
- d) Floor and contour elevations.
- e) Applicable boundaries with survey computations.
- f) Dimensioned relationship of new work to boundaries and existing structures.
- g) Location of test borings.
- h) General parking and handicap parking.
- i) Handicap accessible routes.
- j) Pedestrian traffic routes.
- k) Demolitions: structures, walks, utilities, trees, etc.
- l) Proposed landscaping (planting materials).
- m) Existing and new utilities: storm sewers, sanitary sewers, water supply, gas, steam distribution pipes and tunnels, electric and telephone poles and lines, and hydrant locations with data on fire flow test.
- n) Site improvements such as fencing, lighting, etc.
- o) Typical paving section of each type and thickness required.
- p) Identify/show special earthwork recommended and construction considerations noted in soils report.

a. Demolition drawings

1) For total building demolition, provide:

- a) Plan of building with length & width dimensions,
- b) Elevations (drawn or photographic) and cross section of building to be demolished,

- c) Details of termination of demolition, underpinning, etc.
- 2) For interior / selective demolition, provide:**
 - a) Floor plans showing existing partition, etc., and showing or describing existing material /construction to be removed
 - b) Information or estimates for bidding for work to be removed.

b. Architectural drawings

1) Floor Plans (for each floor)

- a) Plans of each floor at 1/8" = 1'-0" preferred (but not less than 1/16" = 1'-0").
- b) Show room/space numbers.
- c) Overall dimensions.
- d) If the work is an addition, show the relationship of new to existing spaces.
- e) Distinguish new from existing construction.
- f) Show demolition on the architectural plans or separate plans.
- g) Indicate asbestos locations regardless of who removes it or how it is removed.
- h) Indicate all openings, entrances, delivery areas.
- i) Indicate handicap access.
- j) Show scale and north arrow.

2) Reflected Ceiling Plans

- a) Ceiling tile / grid layout
- b) Light fixture locations
- c) Sprinkler head locations
- d) HVAC diffuser and grille locations
- e) Coffers, drop soffits, changes in height or materials

3) Roof Plan

- a) All proposed and existing drains.
- b) Roof slope: 1/4" per 1'-0" to drains minimum (unless waived for reroofing).
- c) All new and existing equipment.
- d) All significant roof penetrations and structures.
- e) Identification of materials on existing roofs.
- f) Typical roofing section identifying materials.
- g) Access to roof.
- h) Indicate direction of slope (high to low) with arrows

4) Exterior Elevations

- a) Scale (1/16" = 1'-0" minimum).
- b) All openings: windows, doors, louvers, vents.
- c) Percentage of glass vs. gross wall area.
- d) Floor elevations (above sea level).
- e) Identification of all major finishes.
- f) All stairs, ramps, and railings.
- g) Rooftop equipment and structures.
- h) Expansion and control joints.

- i) Grade at the face of the building wall.
- j) Subsurface construction (dotted in).
- k) Existing and new work clearly distinguished.
- 5) Building Cross Sections (Scale: 1/16" = 1'-0" minimum)**
 - a) One longitudinal and one transverse section minimum.
 - b) Show all floor levels / elevations on sections.
 - c) Indicate ceilings in proper relation to floors.
 - d) Method and extent of insulating exterior envelope.
- 6) Detail Sections (Scale: 3/4" = 1'-0" minimum)**
 - a) One section minimum for each type of wall construction.
 - b) Identify all major materials and components.
 - c) Identify insulation and note "R" value.
 - d) One section with dimensions and details for each stair configuration.
- 7) Finish Schedule**
 - a) Indicate proposed finishes for all spaces. Note those existing finishes to remain.
 - b) Give ceiling heights of interior spaces.
 - c) Show (or specify) all finishes, textures, colors, etc., required to be provided by the Contractor.
- 8) Furnishing/Equipment Plans**
 - a) Show outline of all major equipment to approximate scale.
 - b) Show outline of all built-in furnishings to scale.
 - c) Provide elevations, sections and details as necessary to describe built-in equipment, casework and furnishings included in the work of this contractor.

c. Structural Drawings

- 1) Unless indicated otherwise below, the structural drawings shall provide complete details of all structural components so that no additional structural design will be required for the preparation of shop drawings except for standard connection details and fabrication calculations.
- 2) Show design live loads, wind loads, and seismic criteria used for design of structural systems per VUSBC. Engineered Design and details of Engineered systems such as Cast-In-Place Post-Tensioned Concrete, Precast Concrete Components, Steel Joists and Joist Girders, Pre-Engineered Metal Structures, and Shop / Prefabricated Wood Components may be required to be provided by the contractor. In this case, the structural drawings shall include complete loading information as well as all other performance or size constraints for the components,
- 3) Structural drawings shall include plans at the same scale as the architectural plans. Details and sections shall be at a scale of not less than 3/4" to 1'.
- 4) The plans, details and specifications shall completely define the structural system and any special conditions for the project.
- 5) Foundation Plan indicating type & sizes.

- 6) Foundation details of improved bearing strata and other special requirements.
- 7) Floor Framing Plans of each level indicating type of system and member sizes/depths and column spacing.
- 8) Roof Framing Plan.
- 9) Typical Section(s) of floor and roof systems identifying materials, thicknesses, depths.
- 10) Details of connections to existing buildings, if applicable.

d. Special Structural Requirements

- 1) Cast-In-Place Reinforced Concrete,
- 2) Cast-In-Place Post-Tensioned Concrete,
- 3) Precast Concrete Components,
- 4) Structural Steel,
- 5) Steel Joists,
- 6) Pre-Engineered Metal Structures, and
- 7) Prefabricated Wood Components systems.
- 8) Fire Protection (FP) Information.
- 9) Fire Detection and Alarm Systems
- 10) Fire Suppression Systems – Sprinklers
- 11) Fire Suppression Systems – Clean Agent
- 12) Sprayed-on Fire Proofing Design & Specification
- 13) Fire Pumps
- 14) Smoke Control
- 15) Plumbing Drawings.
 - a) For renovation projects, provide (here or on cross-referenced demolition plans) plans showing demolition in sufficient detail that the work may be bid from the drawings.
 - b) Plans of each floor noting fixture (including laboratory and compressed air outlet) locations and types of each.
 - c) Plumbing fixture schedules showing designations, connection sizes, and mounting heights of handicapped fixtures. (Note that flush valve handles shall be located on the wide side of the handicapped enclosure.)
 - d) Plans showing layouts and sizes of sanitary DWV piping, cold condensate drainage systems, floor drains, acid waste systems, neutralizing tanks, etc.
 - e) Plans showing roof drains and areas served by each in square feet, piping and sizes. Show downspout boots and connections to foundation drains.
 - f) Plans showing domestic hot and cold water systems, including piping sizes, domestic water heaters with expansion and storage tanks, backflow preventers, water hammer arrestors, water meters, relief devices, and valves including pressure reducing, isolation and balancing.

- g) Plans showing layouts and sizes of compressed air piping, air compressors, air dryers, drains, etc.
- h) Plans showing deionized water systems.
- i) Riser diagrams for sanitary drain, waste and vent; domestic hot and cold water; deionized water; and compressed air where the system is extensive. Risers shall be designated and keyed to the plans. Show room numbers where the outlets/inlets occur, and show drain fixture units at the base of each riser. Show sizes of water hammer arrestors.
- j) Details of hookups at water heaters, air compressors, etc., and roof drain installation.
- k) Schedules of water heaters, air compressors, air dryers, and drains.

e. Mechanical (HVAC) Drawings

- 1) For renovation projects, show demolition in sufficient detail that it may be bid from the drawings.
- 2) Plans of each floor and roof showing double line-duct layouts, mechanical equipment location and layouts.
- 3) Plans shall show ceiling-mounted lighting fixtures.
- 4) Plans of each floor showing chilled water, heating hot water, steam and condensate piping and piping sizes. Show provisions for expansion. (This may be shown on ductwork plans where congestion is not a problem.)
- 5) Provide layouts of mechanical equipment and fan rooms to a scale not less than twice that of the floor plans. Show equipment, ducts, piping, etc. to coordinate the installation in tight areas. Show access and service space requirements such as that required for tube, coil, and fan removal.
- 6) Provide schedules for all mechanical equipment, steam traps, air devices, etc. showing sizes, capacities, HP, CFM, electrical characteristics, locations, features, etc.
- 7) Provide drawings showing control schematics, automation points, etc.
- 8) Provide schematic diagrams of chilled and heating water, steam, and condensate piping.
- 9) Central heating and cooling plants, distribution piping, equipment, anchors, expansion joints, etc. shall be shown as necessary to clearly describe the work.
- 10) Provide sections as required to clearly show the work in three (3) dimensions.
- 11) Show the building loads (in BTU or pounds of steam per hour) to include transmission plus infiltration, outside air, domestic hot water, and kitchen, laundry and hospital hot water and outside air loads that are supplemental to those mentioned where applicable.
- 12) Indicate the sensible and total air conditioning load of the building in tons. Also show the outside air portion of the cooling load in tons.
- 13) Provide details as necessary to show fittings for ducts.

f. Electrical Drawings

(Power and lighting plans may be combined if the combined drawing clearly conveys required information.)

- 1) Lighting plans for each floor showing approximate fixture location, type, and lighting level required (in foot candles).
- 2) Power distribution plans showing location of incoming service, generators, and panel boards.
- 3) Show interface points for communications, fire alarm, EMCS and other pertinent systems.
- 4) Floor proposed locations for receptacles, telephone outlets and switches.
- 5) Electrical plans shall list in kilowatts, electrical load total, three-phase load, motor load, and size of largest motor in horsepower.
- 6) Show required lighting levels in foot candles for the various areas.
- 7) Provide control diagrams, panel board schedules and riser diagrams.
- 8) Provide Lighting Fixture Schedule on the drawings

g. Control Systems

- 1) Provide a written sequence of operation for each mechanical and electrical control system stating explicitly how systems are to function.
- 2) Give all pertinent data regarding safety, alarms, indicators, and control parameters.
- 3) The sequence of operations may be shown on the control diagrams in lieu of in the specification.
- 4) Provide control system diagrams.
- 5) Indicate point(s) of connection of new to existing system.
- 6) Indicate or describe location of operator interface (PC) unit.

h. Specifications

All specification sections shall be written / edited to apply specifically to the project and shall not include materials, standards, requirements or data not pertaining to the project.

i. Rock Excavation

Provide estimated quantities of rock excavation on the Bid Form. The A/E shall prepare and submit Working Drawings and Specifications for the City to submit to the various review agencies for approval as pertinent to the project. With this submission, the A/E shall furnish the City with an estimate of the time for constructing the project and include such in the appropriate paragraph of the Bid Form.

50. BID FORMS AND PROCEDURES

A. Unit Price Bids

Unit Price Bids without estimated quantities shall not be requested on the Bid form. Unit prices may be used only where the required quantity cannot be reasonably determined by the bidders from the documents. (e.g. total length of piles required, total length of caissons, amount of rock excavation, etc.) In such case, an estimated quantity of the unit of construction is provided by the City (and its A/E) on the bid form; the quantity as provided on the bid form and the unit price inserted by the bidder are multiplied together

to give a lump sum amount; and the lump sum amount is added with the other base bid amounts to determine the total base bid amount. Use wording to allow an adjustment to the Contract Price based on the actual quantities provided and approved in the Work.

B. Prequalification of Contractors or Subcontractors

Prospective bidders may be prequalified for bidding on projects. (Prequalification criteria, procedures, and appeal process requirements are detailed in the City of Danville Procurement Code).

C. Design Coordination

The A/E shall coordinate with and obtain approval of the utility designs from the local utilities agencies for connection and service. The A/E shall coordinate with local Fire Service entity for locations of on-site hydrants and Fire Department Connections. The A/E shall coordinate with and shall obtain approval of the entrance design and any required turn lanes or transitions from the City Engineer of the City of Danville, VA for entrances to the project site. If asbestos projects are authorized to proceed with working drawings, two copies are required, and an additional two if revision and resubmission is necessary. Final approval of the working drawings / bid documents is based on the understanding that the A/E has complied, or certifies that it will comply, with the foregoing and with all review comments concerning these requirements prior to printing the documents for release to bidders.

D. Resubmittals

Submittals which are incomplete, which require extensive revisions, and/or which do not conform to the requirements shall be properly completed and resubmitted for a new review. The A/E may be required to make such resubmittals without compensation or reimbursement.

E. Revised Submittals

All changes, revisions, and additions shall be highlighted in yellow on at least two (2) revised submittal set of preliminaries or working drawings.

F. Print and Release of Bid Documents

All review comments shall be resolved and the documents shall be revised and corrected before the documents are released for printing. Using multi-page addenda to address/resolve working drawing review comments IS NOT ACCEPTABLE.

G. Approvals

Approval of the submittal at any stage is dependent on the City and the A/E satisfactorily resolving the issues raised during the reviews. Approval of Preliminaries on any project for which a Value Engineering Study is required will be dependent on the successful resolution of the Value Engineering recommendations and the City review comments.

51. QUALITY CONTROL / QUALITY ASSURANCE

The A/E shall be responsible for the professional and technical accuracy and coordination of all designs, drawings, specifications, cost estimates, and other work or materials

furnished. The A/E shall perform a Quality Assurance review of the working drawings prior to submitting the working drawings. The first sheet of the plans and specifications submitted to the City for Working Drawing Review shall contain the following statement signed by the responsible A/E: “A Quality Control/Quality Assurance check has been made on this project’s documents and corrections have been made. The undersigned states that these plans and specifications submitted for review are complete and ready for bidding.” Signed: (Type Name & Title). This statement shall not appear on the sets of documents issued to bidders.

52. STRUCTURAL AND SPECIAL INSPECTIONS

The A/E, as part of its Basic Service of preparing bid documents, shall include in the project specification the requirements for the materials, for the submittals, and for the tests and inspections to be performed. Identify those tests and inspections are to be performed by the City’s Independent Testing Service. The A/E shall include a summary of required Structural and Special Inspections in Division 1 of the Specifications. The A/E, as part of its construction period Basic Services, shall review and approve the shop drawings, material submittals and other data required to assure compliance with the requirements of the bid documents. The City’s Independent Test Lab shall inspect foundations, log and inspect pile and caisson installations, inspect and test concrete, and inspect and test bolted and welded connections as required by the specifications. The A/E, in accordance with their contract, shall visit the site with representatives of each discipline having work in progress to assure conformance with the design shown in the documents. The City’s Special Inspection Firm shall furnish copies of all reports for the A/E approval. The A/E shall coordinate with the Special Inspection Firm and local Building Official to assure that project is in full compliance with the VUSBC and other regulatory agencies.

53. “COMMISSIONING” OF HVAC SYSTEMS

“Commissioning” for HVAC systems, as described in ASHRAE Guideline (Current Code) for Commissioning of HVAC Systems, begins with the development of the project criteria, continues through the design of the HVAC systems including preparation of the plans and specifications describing the HVAC system components and requirements, continues through the review of shop drawings and submittals, continues through the inspection of the installations of the systems and observation of applicable tests and concludes with the final testing, balancing, start-up, initial operation, and acceptance of the HVAC system including controls. The A/E must begin at the project inception to develop an orderly process to document and set forth the various elements of the process so that the commissioning criteria and requirements are integrated with the design and the specification of the HVAC system and so that procedures are defined for the required testing, balancing and operational checks. The A/E shall specify Contractor requirements related to prefunctional performance testing including, but not limited to, pressure tests, flushing, cleaning, testing, balancing, adjusting and start-up of equipment and the calibration and testing of automatic controls. The specifications shall require that every mode of every part or zone of the HVAC system is operated under full and part load and through all normal operational modes. The specifications set forth, the procedures, and

requirements for the performance testing, system acceptance and training of City personnel is required.

54. LIMITATION OF LIABILITY

To the fullest extent permitted by law, and notwithstanding any other provisions of this Agreement, the total liability, in the aggregate, of Architect and Architect's officers, directors, partners, employees, agents and Architect's Consultants, and any of them, to Owner and anyone claiming by, through or under Owner, for any and all claims, losses, costs of damages whatsoever arising out of, resulting from or in any way related to the Project or the Agreement from any causes, including but not limited to the negligence, professional errors or omissions, strict liability or breach of contract or warranty express or implied of Architect or Architect's officers, directors, partners, employees, agents of Architect's Consultants or any of them, shall not exceed the total insurance proceeds paid on behalf of or to Architect by Architect's insurers in settlement or satisfaction of Owner's Claims under the terms and conditions of Architect's insurance policies applicable thereto.

55. STANDARD OF CARE

The standard of care for this project shall be the reasonable and prudent Virginia industry standard of care for Architects.