

Meredith Public Library

Stormwater Drainage Improvements

Specifications Release Date: September 5, 2014

Developed by: Christopher P Williams PLLC Architects

0.1 Invitation to Bidders:

Project: Meredith Public Library
Stormwater Drainage Improvements

Project Site: Meredith Public Library
91 Main Street
Meredith, NH 03253

Owner: Town of Meredith, New Hampshire
41 Main Street
Meredith, NH 03253

- A. Sealed bids for the work shall be delivered to the Town of Meredith Town Hall located at 41 Main Street in Meredith, New Hampshire by noon on September 24, 2014. Bids will only be accepted until noon. Bids delivered after noon will not be accepted. Bids will be opened in public and bid results will be given to the contractors after the Architect and Owner's review.
- B. Two (2) sets of specs and drawings are provided to each contractor for bidding purposes. Unsuccessful bidders are asked to return specs and drawings to the Architect.
- C. Extra sets of specs and drawings are available to the successful bidder upon request. Drawings are \$1 per sheet and spec books are \$10 each. Partial sets will not be provided. The General Contractor shall be responsible to see that all subcontractors are aware of all facets of the contract documents for coordination purposes as well as to fully understand the project.
- D. The Owner reserves the right to accept or reject any and all bids and to waive any formalities or informalities in the bidding. The Owner is not bound to go with the low bidder. The Owner and Architect shall not be liable for any costs incurred by any participant in the preparation and submission of bids.

0.2 Instructions to Bidders:

- A. The bid form must be completely filled in. Bids which are incomplete, conditional or obscure, or which contain additions not called for may be rejected.
- B. Any erasures or modifications of the bid form must be initialized by the bidder.
- C. No interpretation of the meaning of the Contract Documents will be made to any bidder orally.
- D. All prices for alternates shall include all charges for overhead, profit, labor, materials, taxes, insurance and all other costs of any nature.
- E. The contractor is to submit a Statement of Qualifications with the bid outlining projects of a similar nature as well as client, trade, and financial references.
- F. The General Contractor and affected subcontractors shall visit the project site prior to submitting a proposal. The Contractor shall become generally familiar with the project, and with the impact of the new work on the existing conditions. Any areas of concern shall be brought to the attention of the Architect prior to submitting a proposal. No additional charge to the Owner will be approved which is attributable to the Contractor's failure to do this

F. Anticipated projected construction schedule will be as follows:

Construction Start: **Upon award of contract**

Project Completion: **No later than Friday, November 14, 2014**

G. Other conditions upon which bid proposal is based:

H. Substitutions proposed and potential cost impact (base bid to be as per plans and specifications):

I. Special conditions desired by the Contractor are as follows:

J.

Contractor's Signature

Date

ATTACHMENT I

Projected Costs for:

1.0	General Conditions	\$ _____
2.0	Sitework	\$ _____
2.1	Drives	
2.2	Rough Grading	
2.3	Drain Lines	
2.4	Finish Grading	
3.0	Concrete Work	\$ _____
4.0	Masonry	\$ _____
5.0	Metals	\$ _____
6.0	Carpentry	\$ _____
7.0	Thermal and Moisture Protection	\$ _____
8.0	Doors and Windows	\$ _____
9.0	Finishes	\$ _____
10.0	Specialties	\$ _____
11.0	Equipment	\$ _____
12.0	Furnishings	\$ _____
13.0	Special Construction	\$ _____
14.0	Conveying Systems	\$ _____
15.0	Mechanical	\$ _____
16.0	Electrical	\$ _____
	Total Bid Cost	\$ _____

1.0 GENERAL REQUIREMENTS

1.1 General

All of the Contract Documents, including General Conditions of the Contract and Modifications to the General Conditions. The Contractor shall be responsible for the entire scope of work as outlined herein and in all documents including related coordination with field conditions, related interfaces with other conditions and related work by other trades.

1.2 Summary of Work

- A. The project shall include the construction of Site Drainage Improvements as indicated in the contract drawings and contained within this set of specifications. The project is located at 91 Main Street in Meredith, NH, The Meredith Public Library.
- B. The work shall include construction of indicated site work in areas surrounding the existing building, including maintenance of all discovered underground wiring and/or plumbing services and other work of all trades required.
- C. A set of plans and specifications are to be kept on the job in good condition along with samples, shop drawings and other pertinent job documentation at all times.

1.3 Items supplied by Owner; installed by contractor:

1.4 Items not in Contract

- A. Well
- B. Septic system
- C. New underground utilities

1.5 Owner/Contractor Agreement, Stipulated Sum

AIA Document A107-2007, Abbreviated Standard Form of Agreement between Owner and Contractor for Construction Projects of Limited Scope, shall become a part of these specifications.

1.6 Insurance

- A. The Contractor shall provide a certificate of insurance outlining limits of liability for his Contractor Liability Policy. Said insurance will protect the Contractor from claims for which the Contractor may be legally liable. Coverage shall be as set forth in the General Conditions of the Contract for Construction, including, but not limited to, Workman's Compensation, bodily injury, death, property damage, motor vehicle and other employee benefit acts. Contractor's insurance agent to notify the Architect of any policy changes throughout the project. Contractor shall name the Owner, Architect and itself as coinsureds.
- B. Liability insurance shall include all major divisions of coverage and be on a comprehensive basis including:
 - 1. Workmen's Compensation: Statutory limits required by law.

2. General Liability (including premises, operations, independent contractors' protective, products and completed operations, and broad form property):

Damage using occurrence form only:

- a. Bodily Injury:
\$1,000,000 Each occurrence
\$1,000,000 Aggregate
- b. Property Damage:
\$1,000,000 Each occurrence
\$1,000,000 Aggregate
- c. Products and Completed Operations insurance shall be maintained for a minimum period of one year after final payment, and the contractor shall continue to provide evidence of such coverage to the Owner during that period.
- d. Property Damage Liability insurance shall include coverage for the following hazards: X (explosion), C (collapse), and U (underground).
- e. Contractual Liability (Hold Harmless Coverage):
 - Bodily Injury:
\$1,000,000 Each occurrence
 - Property Damage:
\$1,000,000 Each occurrence
\$1,000,000 Aggregate
- f. Personal Injury (with Employment Exclusion deleted, if applicable):
\$1,000,000 Aggregate
- g. If the General Liability policy includes a General Aggregate, such General Aggregate shall be not less than \$1,000,000. Policy shall be endorsed to have General Aggregate apply to this project only.
- h. Umbrella Excess Liability:
\$3,000,000 over Primary insurance
\$10,000 Retention
- i. Automobile Liability (owned, non-owned, hired):
 - Bodily Injury:
\$1,000,000 Each person
\$1,000,000 Each accident
 - Property Damage:
\$1,000,000 Each occurrence

- C. Owner's Insurance: Owner shall be responsible for maintaining Builders Risk "all-risk" Policy and Owners Protective Liability Policy through duration of project, as set forth in the General Conditions of the Contract for Construction.

1.7 Permits

The Contractor shall obtain all necessary permits from the municipality and other applicable agencies for the construction of the project. The cost for such permits shall be included in the Contractor's price.

1.8 Codes and Laws

- A. All work shall comply with ALL applicable Federal, State and Local laws, regulations and codes and authorities having jurisdiction.
- B. All work and temporary facilities shall be in strict compliance with the requirements of OSHA and the State of New Hampshire Safety Procedure requirements.

1.9 Inspection by Inspectors

The Contractor shall coordinate all necessary inspections by pertinent state and local Inspectors and other applicable officials, if necessary, shall notify both the Owner and Architect of inspections at least 48 hours in advance. Submit copies of permits, licenses, certification of inspection reports, releases, notices, judgments and communications from authorities having jurisdiction to both the Owner and the Architect. The Contractor shall allow for inspections by the funding source used by the Owner. The Owner or Architect may choose to have periodic inspections by plumbing and electrical inspectors.

1.10 Construction Timing

It is the Owner's goal to have construction begin in September 2014 (or upon award of contract) and to have work completed by Friday, November 14, 2014. The building will be occupied throughout that time during regular posted hours. The Contractor shall process all submittals as soon as possible so that most will be approved prior to initiation of work on site.

1.11 Owner's Representative

The Clerk-of-the-Works shall act as the Owner's Representative during the construction process. He shall be on-site on a regular basis and will review work progress and assist in coordination with the Owner's related subcontractors. The Contractor shall keep him informed of work status and anticipated schedules throughout the job.

The Contractor shall coordinate work with Owner in a manner providing minimal disturbance to the Owner's operations. Continual communication is required so that the Owner will be aware of anticipated work at all times so that necessary personnel and equipment adjustments may be made.

1.12 Communications

The Architect shall be a party to all communication between the Owner and Contractor, which affects changes or problems encountered on the job. In no case shall changes be made in the work without consulting with the Architect.

1.13 Allowances

The Contractor shall use the following prices in preparation of his bid. After acceptance of the job, the Owner will choose specific materials outlined below. If the actual cost is below the allowed amount, the Contractor will provide a credit. If the cost is higher, then the adjustment will be made to the Contractor. In either event, written documentation must be provided by the Contractor and a written Change Order prepared for the difference. Adjustment is to reflect actual cost with no markup.

- A. Not Used

1.14 Unit Prices

A. Summary:

The Section covers those items for which indefinite quantities can be expected and, therefore, pre-agreed prices per unit of work are established as means to determine adjustments to the Contract Price after actual quantities are determined.

B. Related Requirements

Examine Contract Documents for requirements that affect work of this Section.

C. Quantities and Cost Adjustments

1. Refer to individual Specification Sections for methods of measurement and payment for unit prices. As soon as the work involved in each unit cost item has been completed, submit documentation to establish the actual quantities provided. Submit to the Clerk of the Works for review and issuance of Change Order.
2. As soon as the work involved in each unit cost item has been completed, submit documentation to establish the actual quantities provided. Submit to the Architect for review and issuance of Change Order.
3. Change Order amount for each unit cost item will be based on actual quantities multiplied by the unit cost. This unit cost includes all mark-ups, applicable taxes, overhead, and profit as described below.

D. Unit Price Schedule

1. Should certain additional work be required, or should the quantities of certain classes of work be increased or decreased from those required by the Contract Documents, by authorization of the Owner, the below unit prices shall, at the option of the Owner, be the basis of payment to the Contractor or credit to the Owner, for such increase or decrease in the work. The Unit Prices shall represent the exact net amount per unit to be paid the Contractor (in the case of additions or increase) or to be refunded the Owner (in the case of decreased). No additional adjustment will be allowed for overhead, profit, insurance, or other direct or indirect expenses of the Contractor or Subcontractors. No additional adjustments will be allowed for over excavation, over blasting, or other work without the prior written approval of the Owner.

ITEM	ADD	DEDUCT
a. <u>Trench Earth Excavation, Removed From Site:</u> Utility trench earth excavation, including dewatering, removal from site, and legal disposal, measured in-place before excavation, per cu. yd.	\$ _____	\$ _____
b. <u>Trench Earth Excavation, Stockpiled On-Site:</u> : Utility trench earth excavation, including dewatering and stockpiling for use as backfill, measured in-place before excavation, per cu. yd.	\$ _____	\$ _____
c. <u>Sand:</u> Sand, including placing and compacting as specified, from off-site, measured after placing, per cu. yd.	\$ _____	\$ _____
d. <u>Gravel:</u> Gravel, including placing and compacting as specified, from off-site, measured after placing, per cu. yd.	\$ _____	\$ _____
e. <u>Crushed Gravel:</u> Crushed Gravel, including placing and compacting as specified, from off-site, measured after placing, per cu. yd.	\$ _____	\$ _____

- E. The above unit prices shall include all labor, materials, dewatering, shoring, removal, overhead, profit, insurance, etc. to cover the finished work of the several kinds called for. Changes shall be processed in accordance with the provisions of the Document 00700, GENERAL CONDITIONS governing Changes in the Work and Section 01028, CHANGE ORDER PROCEDURES.

1.15 Schedule of Values

Prior to submitting the first application for payment the Contractor shall submit to the Architect, the Clerk-of-the-Works and Owner a projected schedule of values outlining the dollar amounts applicable to each specification division 1-16 and an anticipated schedule of payments. For the duration of the job, these schedules are to be updated monthly and submitted with the Applications for Payment if changes occur. Change Orders shall be listed as separate additional divisions with a brief description of each on subsequent Applications for Payment. Change Orders shall be listed as separate items for the duration of the project.

1.16 Payments and Retainage

Contractor billing shall be monthly. Each application for payment will reflect a five percent (5%) retainage and be held for (6) six months after the project is completed. Work shall be inspected (6) six months after completion; at the point, the vendor may submit a final invoice for the retainage. Inspection will include any punch list items that may have been outstanding. All applications for payment shall be made on AIA Document G702, "Application and Certificate for Payment."

Application Procedure:

- Supply the Architect with AIA G702 and G703 at end of month.
- On-site inspection by Architect and Clerk-of-the-Works within five (5) working days.
- Architect shall process G702 and G703 within three (3) working days after meeting
- Payment form will be forwarded to the Clerk-of-the-Works for signature.
- Clerk-of-the-Works shall for payment form to the Owner.
- Owner shall process payment within ten (10) working days of receipt.

Waiver of Liens:

The attached appropriate Waiver of Liens statements will be supplied with each application for payment verifying that the Contractor has paid all invoices received to date for materials and subcontractors. Application and Certificate for Payment will not be processed without the completed appropriate waiver form. These are to be used as follows:

"Progress Waiver of Lien Material or Labor" is to be submitted with each application by the General Contractor up to the final application. The Owner and Architect reserve the right to require that the General Contractor secure Progress Waivers from subcontractors and suppliers.

"Progress Waiver of Lien Prior to Final Payment Material or Labor" is to be submitted with the **Final Application for Payment** but prior to receipt of Final Payment along with a copy of the same waiver from subcontractors and suppliers.

"Final Payment Waiver of Lien Material and Labor" is to be submitted by General Contractor for General Contractor and each subcontractor or supplier **upon receipt of final payment**.

1.17 Substitutions

No substitutions shall be made in specified materials unless they are previously approved by the Owner and Architect. Substitutions will only be considered where they are an improvement in performance, quality, or provide a major cost savings without compromise in quality. Savings to be passed on to the Owner through a change order. Availability of products and materials may be considered as for cause substitutions provided that the Contractor has allowed reasonable lead time for specified item.

1.18 Changes

All changes in the work shall be documented using AIA Document G701, "Change Order," and shall clearly define specific configuration and work along with cost implications and impact on project schedule.

Anticipated changes may be handled in a variety of ways that are outlined as follows:

- A. "Proposal Request" AIA G709: Wherein through written request the Architect requests a quotation for contemplated work for impact on contract sum and time. This is not a change order or authorization to proceed with the work.
- B. "Architect's Supplemental Instruction" AIA G710: A written order, instruction or interpretation, signed by the Architect making minor changes in the work not involving a change in the contract sum or time.
- C. "Construction Change Directive" AIA G714: A written order to the Contractor, signed by the Owner, Clerk-of-the-Works and Architect which amends the contract documents and authorizes the Contractor to proceed with a change which affects the contract sum or time for inclusion in a Subsequent Change Order.
- D. Meeting Reports: The Architect may request quotes for changes or give supplemental instructions at job meetings and record these in their meeting reports. In no case shall changes be made which reduce quality of the project or change project costs without Owner, Architect and Contractor approval, in which case a change order will be processed.

The Contractor shall keep a running list of changes with time and cost implications for the job, which shall be reviewed with the Owner and Architect at least monthly. The Owner and Architect may reject requests for extras for work performed without discussion of extras if specifics for such work are determinable within 1 month of authorization to do work in question. In no case shall extra work be executed until approved in writing.

Change Orders shall reflect added or credited costs for all labor, equipment, products, insurance, overhead, and profit as well as justification of change in contract time. Backup for costs to be verified by receipts and/or other related documentation. Change Orders may be based upon lump sum/fixed price estimates, unit prices for labor and materials based on actual quantities and verified by the clerk-of-the-works, or on a time and materials basis also to be verified by the clerk-of-the-works.

1.19 Alternates

A. General:

For each alternate, state the amount in the bid form to be added or subtracted from the Contract Sum for the work.

Each alternate is defined using abbreviated language, recognizing that the contract documents define the requirements. Each proposal shall include the entire cost of the work including overhead, profit and other costs.

Selection of alternates to be included in the work will be by the Owner.

B. Description of Alternates:

Alternate No. 1: Not Used

1.20 Clarification of Drawings and Specifications

- A. In the event that a conflict exists between the written specifications or the construction drawings, the Contractor shall contact the Architect for clarification.
- B. In all cases, the Contractor shall provide the better quality or greater quality of work, unless otherwise directed by written addendum to the Contract, at no additional cost to the Owner.

- C. The intent of the contract documents is to provide for complete installations and operable systems as intended. Any items not specifically identified, which are required to achieve a complete system, shall not alleviate the Contractor's responsibility for achieving the same.

1.21 Coordination:

- A. The Contractor shall be responsible for coordination of all work required by the Contract Documents including work of all trades and subcontractors to insure that work flows smoothly and that various items of work are scheduled and installed to allow proper interface of work.
- B. The Contractor and all subcontractors shall refer to all the Drawings, including those showing primarily the work of the mechanical, electrical and other specialized trades, and to all of the Sections of the Specifications, and shall perform all work reasonably inferable there from as being necessary to produce the indicated results.
- C. The Contractor shall be responsible to see that all his subcontractors are familiar with all contract documents, have properly coordinated their work with all related trades to insure that the work is done properly and in sequence, and inform the Contractor of any unsatisfactory conditions.
- D. The Contractor shall notify the Architect and appropriate authorities when coming across an unknown utility line. Contractor shall be responsible for damage caused to existing utilities, whether or not such utilities are indicated on the drawings, including resultant damages or injuries.
- E. The Contractor shall carefully coordinate all work with the Owner to minimize disturbance to building users who will be utilizing areas inside and outside the building immediately adjacent to the work area.

1.22 Cutting and Patching:

- A. The Contractor shall perform all cutting and patching on the job to make sure its parts fit together properly, remove and replace defective work, remove and replace work not conforming to Contract Documents; remove samples installed for testing, and uncover portions of the work to provide for installation of all timed work.
- B. All disturbed areas are to be patched to match surrounding surfaces. The Architect shall be the sole judge as to whether patching is satisfactorily done. Do not cut and patch structural components in any way that would affect structural integrity or value without adequate precautions to insure temporary and permanent structural stability for the components and its intended load.
- C. Permission to patch any items of work does not imply a waiver of the Architect's right to require complete removal and replacement if patching does not satisfactorily restore quality and appearance of work.
- D. All work shall comply with requirements of specified products, functions, tolerances and finishes. In the event that specifics are not available, utilize published industry guides to establish standards. Contractor to take proper precautions to insure that cutting and patching work minimizes damage to surrounding materials by utilizing methods which will prevent damage to existing conditions and other work. When refinishing surfaces, refinish entire surface as necessary to provide an even finish to match adjacent finishes; for continuous surfaces, refinish to nearest intersection; for assembly, refinish entire unit.

- 1.23 Protection of existing finishes to Remain: The Contractor shall adequately protect all existing finishes, fixtures, architectural features, and equipment not covered in the contract to preserve condition at the start of the job. Any item or surface that is damaged will be repaired or replaced at the Contractor's expense to the satisfaction of the Owner.

1.24 Pre-Construction Meeting

- A. Prior to beginning work on-site, a preconstruction meeting will be held with the Contractor, Owner, and Architect. The Contractor shall submit the following:
 - 1. List of contractor's and subcontractor's key personnel who will work on the job, including emergency phone numbers
 - 2. Copies of permits and communication with relevant authorities
 - 3. Contractor's Certificate of Insurance
 - 4. Subcontractor's insurance
 - 5. Contractor's Proposed Schedule of Work
 - 6. A schedule of submittal submissions with anticipated time frame for each
- B. Other items that may be discussed include job procedures, unit prices, list of allowances, alternates, subcontractor's insurance, and means of protection of the public.
- B. The general condition of the building, including the conditions of the finished surfaces and materials, shall be inspected, photographed, and recorded by the General Contractor prior to beginning any work. Any change to these conditions, which occurs after making this record, will be attributed to construction operations, and it shall be the responsibility of the General Contractor to restore any part of the project to the condition shown in the record.

1.25 Responsibilities of the General Contractor With Regard To Existing Conditions:

A. General

- 1. Information contained in the Contract Documents with regard to existing conditions of construction is provided for the convenience of the General Contractor in executing the work. Every attempt has been made to provide complete and accurate representations of such existing conditions. This interpretation has been taken from record sets of "as-built" drawings and has been further supplemented by/based on field measurement and observations. The Architect cannot guarantee the accuracy or completeness of such information and assumes no liability thereof.
- 2. The information contained in the Contract Documents with regard to existing conditions of construction in no way releases the General Contractor from the responsibility for verifying completely all field conditions relating to and affecting the execution of the work, as described in these contract documents.
- 3. It is the responsibility of the General Contractor to field-verify and document all existing dimensions, elevations and benchmarks, materials, and methods of construction that may affect or be affected by new work, and to coordinate such field verification with the contract documents and the execution of the work. Discrepancies and/or conflicts involving anticipated existing conditions shall be brought to the Architect's attention immediately.
- 4. Field-verification of existing conditions related to specific portions of the work shall be undertaken in advance to allow for the timely identification of existing conditions that may affect the scheduled installation of new work as designed and detailed, and to avoid undue and unreasonable delays to the project should such conditions be discovered.

Timely identifications of such conditions shall provide a minimum period of ten (10) working days during which time the Architect will evaluate the conditions and make recommendations for accommodating new work.
- 5. It is the responsibility of the General Contractor to assist the Architect in making their evaluations and recommendations by providing in a timely manner, at no additional cost to the Owner, accurate and complete drawings, sketches, or photographs sufficient to clearly describe discrepancies, conflicts, and concealed or otherwise unanticipated existing conditions affecting new construction.

6. The Architect has endeavored to identify, as completely as possible in the drawings and specifications, existing items of equipment and construction that are required to be removed or otherwise demolished so as to allow the execution of new work. This information is provided for the convenience of the General Contractor and is in no way intended to mean that demolition is limited only to those items specifically identified. It is the General Contractor's responsibility to execute demolition work as required to allow the execution of new work.

B. Existing Life Safety and Emergency Systems

1. Existing life safety and emergency systems may not be shown on the drawings in their entirety.
2. The General Contractor is responsible for field-verification of location and extent of these systems (including but not limited to fire sprinkler systems, emergency lighting systems as they may need to be protected during the work.

1.26 Project Meetings

Periodic Project Meetings will be held on-site throughout the duration of the project to allow the Owner and Architect the opportunity to review status and quality of work as well as to provide an open forum to discuss various aspects of the job. The Architect shall also review Applications for Payment at these meetings. The Architect shall keep minutes of these meetings, which will be distributed to the Owner and General Contractor. Distribution to subcontractors shall be the responsibility of the General Contractor.

1.27 Submittals

Submittals shall consist of product literature and shop drawings required. The Contractor shall submit four (4) copies of each submittal. Prior to submission to the Architect, the Contractor shall thoroughly review for conformance with the plans, specifications and field conditions and mark up accordingly. The Contractor is to schedule submittals in a timely manner so as not to delay the construction process. The Architect shall have ten (10) working days to review submittal packages. Rejection of shop drawings shall not be a reasonable cause for hold up in the construction schedule.

Checking is only for conformance with the design concept of the project and compliance with the information given in the contract documents. The Contractor is responsible for dimensions and quantities to be documented and correlated at the job site as well as information that pertains solely to fabrication processes or to the techniques of construction and for coordination of the work of all trades. Approval does not in any way change requirements of AIA general conditions and the contract documents unless specifically authorized and spelled out through the Architect's Change Order.

The Contractor shall utilize the Submittal Transmittal contained within the specification documents in sending submittals to the Architect which require that the Contractor certify that the system or product as submitted is in accordance with the Contract Documents, that all field dimensions have been verified or corrected, and that any deviations existing between these drawings and the Contract Documents are listed.

Shop drawings shall show the layout and configuration of the following items for conformance with the design concept and compliance with the information given in the Contract Documents. Shop drawings requiring review by the Architect's consultant shall be processed by the Architects and their consultants. The Architect shall review information supplied and submit marked up copies to both the Owner and Contractor. If the drawings are not approved they shall be resubmitted until approved.

Submittals and Shop Drawings Required and Other Items Identified in the Specifications:

- A. Catch basins
- B. Catch basin covers

1.28 Samples:

Samples shall be submitted to the Architect for review and approval with the Owners for the following items and other items identified in the specifications:

- A. Cast paving stones
- B. Granite paving stones

1.29 Testing Laboratory Services

The Owner reserves the right, at his sole discretion, to select and pay for the services of an independent testing laboratory to perform services and testing as may be in the Owner's best interest. The Contractor shall cooperate with the laboratory to facilitate the execution of its services. The Owner's employment of the laboratory shall in no way relieve the Contractor's obligations to perform the work required by the Contract. The Contractor shall cooperate with laboratory personnel, notify the laboratory of schedule for associated work and provide the laboratory full access to the work. The Contractor shall also monitor each inspection, sampling and test, and provide written acknowledgment of results or within 24 hours notify the Architect and Owner in writing of reasons for not acknowledging laboratory results.

1.30 Temporary Facilities – Maintenance, Termination and Removal:

- A. Telephone: The Contractor shall utilize a cellular phone, as soon as possible. Associated cost shall be assumed by the Owner provided it is used only for project-related calls. The Contractor shall inform both the Owner and Architect of telephone numbers at initial meeting for all of the contractor's key personnel on or off the site.
- B. Power: The Contractor shall make arrangements for temporary power connection at the existing building. Power usage shall be paid by the Owner.
- C. Toilet Facilities: The Contractor shall provide and maintain a clean portable toilet for construction staff which shall be maintained by a licensed operator and kept clean and pumped on a regular basis for the duration of the project.
- D. Job Storage: The Contractor shall maintain a storage area adequate to meet his storage needs. Storage facilities to be field-located, exact location to be coordinated with the Owner near the rear of the parking area.
- E. Protection of People and Property: Provide and maintain sufficient barricades as necessary to protect the public, workers on site and the Owner's property.
- F. Security of Existing Building: Existing building shall be kept secure against unauthorized entry throughout the duration of the project by locks. The contractor will not have access to the building when the Library is closed.
- G. Temporary Signage: The Contractor may install a temporary sign with the name of the project, the name of the Prime Contractor and the name of the Architect. The sign will not include names of subcontractors or consultants. Sign not to exceed 36" x 48" and must be painted by a professional sign maker. No additional signs will be allowed.
- H. Cleanliness:
 - a. The job sites shall be maintained and kept clean and free from trash and debris on a daily basis. The Contractor shall provide dumpsters or other containers as required which shall be emptied on a regular basis to avoid overflow. All construction debris to be legally disposed off-site.
 - b. Construction materials will be neatly stacked and stored in areas agreed by the Owner. All stored materials to be carefully maintained. In no case shall materials be stored on lawns, landscaped areas, or under trees without prior approval by the Owner.

- I. Water Control: Provide methods to control surface water to prevent damage to project, site, and adjoining property. Dispose of drainage water in a manner to prevent flooding, erosion or other damage.
 - J. Pollution Control: Prevent contamination of soil, water, or atmosphere by the discharge of noxious substances from the work area off-site or into the existing building.
 - K. Dust Control: Provide positive methods and apply dust control materials to minimize raising dust from construction operations.
 - L. Construction Aids: Provide all construction aids and equipment required to facilitate the execution of the work: scaffolds, staging, ladders, stairs, railing, hoists, cranes, chutes, and other such equipment. All aids to comply with OSHA requirements.
 - M. Shoring and Bracing: If necessary, the Contractor shall design, engineer and provide all necessary shoring and bracing to protect the building from collapse during demolition and renovation work, and for the protection of people and property.
- 1.31 Tree and Shrub Protection: Protect existing trees and plants from damage as a result of the contractor's operations.
- A. Prior to start of the work, tree and shrub protection shall be installed as follows:
 - 1. 4' high orange plastic or snow fencing to be installed at areas indicated by the Architect.
 - 2. Fencing shall be installed at a minimum of 5 feet beyond the drip line of individual trees to be protected and at the perimeter of the work area unless otherwise approved by the Architect.
 - 3. Provide hay bales at the roots of any trees that are threatened by activity on site. Coordinate location with the Architect on-site.
 - B. Temporary protection shall be removed after all work that may injure or damage trees and plants is complete or as approved by the Architect.
- 1.32 Material and Product Installation
- A. All materials and products are to be handled and installed in strict accordance with the manufacturers' specific recommendations and procedures and in compliance with recommended industry standards of related product associations.
 - B. In all cases work shall be conducted in a responsible and workmanlike manner to ensure the quality of the project.
 - C. The Contractor shall make sure all Subcontractors are responsible for inspection of substrates and approval of other directly related work prior to installing their specific specialty. Subcontractors shall report in writing any problems and shall not proceed with work until corrections have been made. Subcontractors proceeding with work shall be interpreted as approval of related work.
 - D. Wherever possible, installation and maintenance instructions will be followed unless specifically called out differently in the Contract Documents, in which case the Contractor shall verify the difference with the Architect prior to installing the product. Where these are not specifically available, industry standards as published by various industry groups and standard practice shall be used.

1.33 As-Built Drawings

- A. As-built drawings reflecting changes from Contract Documents shall be prepared by the Contractor indicating changes made on the job during the construction process by weekly marking up a clean set of plans to be kept by the Contractor for this purpose.
- B. The Contractor shall be responsible to see that subcontractors update their sections weekly.
- C. Contractor to provide as-built drawings prior to final payment as indicated below.

1.34 Project Close-out

- A. After all other work has been completed, the Contractor shall remove all paint, spots, stains, and marks. The Contractor shall also clean the site of all construction debris and return the site to a clean and natural condition or to proposed site conditions.
- B. Maintenance manuals and instructions: All manufactured materials and articles and equipment shall be installed, applied, used, and cleaned according to manufacturer's printed directions unless specified herein to the contrary, in which case the Architect shall be notified prior to proceeding with the work. One copy of such printed directions, product literature, warranties, manuals, tags, pictures and other items which give information on any equipment are to be kept clean and dry, and after use by mechanics are to be placed in a binder to be kept with the Architect's Contract Documents at the job to be delivered to the Architect for final turnover to the Owner prior to the final payment. They are to be bound in a 3-ring binder.
- C. When the Contractor feels he has substantially completed the job, the Owner, Contractor and the Architect shall go through the project together and prepare a punch list of miscellaneous items to be completed prior to final payment. At the time of substantial completion, the Architect will issue a copy of Certificate of Substantial Completion, which shall initiate the contractor's one-year warranty period.
- D. The Contractor shall provide a schedule for completion of any minor outstanding work.
- E. The Contractor shall settle all claims and resolve all disputes with subcontractors and suppliers.
- F. The Contractor shall remove temporary facilities.
- G. The Contractor shall provide a termination of his Builders Risk Insurance Policy/Owners Protective Liability Policy.
- H. The Contractor shall meet with the Owner or his designee to review operation and maintenance requirements for various building components.
- I. The Contractor shall provide original copies of marked-up as-built plans to the Architect.

1.35 Guarantee and Warranties

- A. Guarantee: The Contractor, his subcontractors and suppliers, shall guarantee all materials and work for a period of one year after the owner's acceptance of the work at the time of substantial completion.
- B. All guarantees and warranties for materials, products and assemblies installed in the building shall be in the name of the Owner and passed on to the Owner through the Architect and shall be based on the time of substantial completion for the project.

END OF SECTION

2.0 SITEWORK AND DEMOLITION

2.1 General

All of the Contract Documents, including General Conditions of the Contract, Modifications to the General Conditions, and all items outlined in Division 1 apply to the work of this section. The Contractor shall be responsible for the entire scope of work as outlined herein and in all documents including related coordination with field conditions, related interfaces with other conditions and related work by other trades.

2.2 Selective Demolition:

A. General:

1. The Contractor shall provide for selective demolition at the existing building as required to conduct the work. The work shall be done in a safe manner that will serve to protect all portions of the building to be salvaged.
2. All items to be reused shall be carefully removed and stored so as not to be damaged or to damage other building components.
3. The Contractor shall utilize protective coverings as necessary to protect floors and other existing building components to the largest degree practical.
4. The Contractor shall at all times maintain adequate shoring and bracing to protect the building and its occupants. The Contractor shall be responsible for designing, engineering and placement of all shoring and bracing required to protect the building and its occupants. The Owner and Architect assume no responsibility and make no claims as to the actual condition or structural adequacy of the existing building or areas to be demolished. The Contractor shall investigate and assure himself of the condition of areas to be selectively demolished and take proper precautions to ensure safety of persons and property.
5. The use of explosives is prohibited.

B. *Occupancy:* Owner will continually occupy areas of the building immediately adjacent to areas of selective demolition. Conduct selective demolition work in manner that will minimize need for disruption of Owner's normal uses. Provide minimum of 72 hours advance notice to Owner of demolition activities that will severely impact Owner's use. To greatest extent possible, schedule loud operations at times when Library is closed to public.

C. *Environmental Controls:*

1. Use water sprinkling and other suitable methods to limit dust and dirt rising and scattering in air to lowest practical level.
2. Do not use water when it may create hazardous or objectionable conditions such as flooding, damage to portions to remain, or pollution.
3. Comply with governing regulations pertaining to environmental protection.
4. If hazardous materials are encountered during demolition operations, comply with applicable regulations, laws and ordinances concerning removal, handling and protection against exposure or environmental pollution.

D. Temporary Enclosures

1. Where selective demolition occurs immediately adjacent to occupied portions of the building. Coordinate the closure of all nearby windows with Owner.
2. Provide weatherproof closures for exterior openings resulting from demolition work.

- E. For concrete cutting, the services of a professional concrete cutting company shall be secured. All concrete openings shall be saw cut.
- F. Debris will not be allowed to build up on site to any extent in order to ensure safety and protection of the building and its occupants. Periodic removal of debris shall occur to ensure cleanliness of site and safety. Burning of debris on site shall not be allowed. All debris to be legally disposed off site.
- G. Historic artifacts, antiques, and other articles of historic significance remain the property of the Owner. Notify Owner's representative if such items are encountered and obtain acceptance regarding method of removal and salvage for Owner.

2.3 Erosion and Sediment Control

A. Summary

This section specifies equipment and materials for an erosion and sediment control program for minimizing erosion and siltation during the construction phase of the project. The Contractor is to provide measures to control surface water to prevent damage to the project, site, and adjoining property. Dispose of drainage water in a manner to prevent flooding, erosion, or other damage. The erosion and sediment control provisions detailed on the drawings or specified herein are the minimum requirements for an erosion control program. The contractor shall provide additional erosion and sediment control materials and methods as required to effect the erosion and siltation control principles specified herein. All erosion and sediment control to be in accordance with the requirements of NHDES and all permits issued.

B. Erosion Control Principles

1. Stripping of vegetation shall not be permitted.
2. Whenever feasible, existing vegetation shall be retained and protected.
3. Extent of area that is exposed and free of vegetation and duration of its exposure shall be kept within practical limits.
4. Drainage provisions shall accommodate increased runoff resulting from modifications of soil and surface conditions during and after development or disturbance. Such provisions shall be in addition to existing requirements.
5. Sediment shall be retained on-site.
6. Erosion control devices shall be installed as early as possible in the construction sequence prior to start of clearing and grubbing operations and excavation work.
7. Cut and fill slopes and stockpiled materials shall be protected to prevent erosion.

C. Products

1. Silt fence shall be approved geotextile fabric by Mirafil or equal. Silt fence shall be supported by wood posts, driven a minimum of 1 foot into the ground. Posts shall be spaced 10-ft. o.c. maximum.
2. Hay bales for construction of erosion control devices shall be new, firm, wire- or nylon-bound mulch feed-grade.

D. Execution

1. Silt Fence: Silt fence shall be constructed and installed as indicated on the drawings, prior to start of clearing and grubbing operations.
2. Hay Bale Dike: Bales shall be placed in a row with ends tightly abutting the adjacent bales. Each bale shall be embedded in the soil a minimum of 4 inches. Bales shall be securely anchored in place by stakes or re-bars driven through the bales. The first stake in each bale shall be angled.
3. Hay Bale Catch Basin Filter: Catch basin filters shall be placed at all inlets to drainage structures as structures are installed. Outlet protection work shall be constructed before runoff is allowed to enter the drainage system. Construction and location of catch basin filters shall be as indicated on the drawings.
4. Culverts and drainage ditches shall be kept clean and clear of obstructions during construction period.
5. Erosion control devices shall be maintained until all disturbed earth has been paved, finished, or vegetated, at which time they shall be removed. After removal, areas disturbed by these devices shall be regraded and finished or seeded.

2.4 Layout and Grades

- A. Lines and grades will be established by the Contractor in conformity with the drawings. The final layout shall be worked out on-site by the Contractor and approved by the Architect.
- B. Lines and grades shall be maintained by means of suitable stakes, batter boards or other means placed to properly perform the contract installations. Suitable protection of adjacent site finishes to remain.
- C. The Contractor shall maintain all established bounds and benchmarks and replace as directed any which may be disturbed or destroyed.

2.5 Clearing and Grubbing: Special care is to be exercised to ensure that shrubs, ledges, large rocks and other landscape items surrounding the immediate construction area are not disturbed or scarred. Contractor shall endeavor to minimize damage to existing bituminous parking surface.

2.6 Trenching and Vertical Excavations

- A. The general contractor and related subcontractors shall take all necessary precautions to ensure the safety of workers on site and to prevent collapse of excavations.
- B. Precautions may include shoring and bracing and may require the expertise of a professional engineer retained by the Contractor.

2.7 Excavation

A. General:

1. Prior to any excavation, the Contractor shall coordinate with the Owner to insure that there are no known underground utilities in the area of proposed excavations.
2. Contractor shall notify public and private utility companies in advance of construction so that existing utilities may be accurately located. Prior to doing any digging on the site, the Contractor must contact "Dig Safe" at (800) 225-4977 to insure all underground services are properly located.

3. The Contractor shall notify the Architect and appropriate authorities when coming across an unknown utility line. The Contractor shall be responsible for damage caused to existing utilities, whether or not such utilities are indicated on the drawings, including resultant damage or injuries.
 4. The Contractor shall take proper precautions to insure that any interruption of building utilities required will be carefully coordinated with the Owner to minimize impact on building use.
- B. Rough Site: Rough excavation shall include excavation as required to approximate final grading and shall include removal of all organic matter from the surface in areas to be filled and ensure that no organic material will be below fill or pavement. All bulky scarred rock material from the rough excavation, which cannot be readily buried on site, shall be removed from the immediate site and disposed of legally. Contractor to endeavor to keep excavated area as small as possible to minimize damage to surrounding site.
- C. Ledge: In the event that ledge or other unforeseen site conditions are encountered which necessitates additional work which could not be reasonably anticipated, the Contractor shall bill the Owner for work required for stone removal work as a change order. No blasting shall be permitted.

2.8 Backfill

- A. All backfill material within 4' of foundation walls, below slabs, around drains and other utilities, and below the roadways, shall be of gravel-type base (meeting the requirements of the New Hampshire Department of Transportation Item 304.2) and shall not contain clay-like material, organic material or rocks over 6" in diameter.
 - B. All fill areas indicated on drawings to receive compacted backfill shall be of bankrun gravel as outlined above or structural backfill (1^{1/2}" crushed gravel) New Hampshire Department of Transportation Item 304.3. Compacted backfill shall be placed in 6" lifts and compacted to 95 percent using a recognized mechanical soil vibrator specifically designed for such use.
- 2.9 Below Paved Areas: (Where disturbed by adjacent demolition) provide a 12" layer of aggregate base course graded, granular, non-frost susceptible, free draining stone/coarse sand backfill free of loam and clay which conforms to the New Hampshire Department of Transportation's Standard Specifications for Road and Bridges, Item 304.3 Base Courses.

2.10 Drainage

- A. Subsurface Drains. Perimeter drains shall be of 6" rigid, perforated PVC installed to tie into existing catch basin. Pipe is to be laid with holes down at 4 and 8 o'clock so that they may be self-cleaning. Perforated drain pipe is to be laid level with the invert aligned to both catch basins. Solid pipe to outfall shall have a minimum slope of 1/4" per foot. The pipes shall typically be surrounded by 8" of 3/4" to 1" washed stone which shall be covered with a layer of geotechnical filter fabric prior to backfilling.
- B. Drip Bed: Where shown on drawings, provide 4" deep drip bed of 3/4" peastone (New Hampshire Department of Transportation Course Aggregate #67) as shown on plans at building eaveline at entire building perimeter. Width to be 24" beyond face of building.
- C. Catch Basins: Drop-inlets and shall be 900 Catch Bsin Series by NDS or approved equal with slotted cast iron grates rated for 8,000 lbs. Provide all components necessary for layout shown in drawings, including riser extensions and adaptors.

- A. At areas of disturbed lawn finish grading to consist of a minimum of 6" of screened loam placed on all disturbed areas and adjacent to the building.
- B. The material is to be hand raked to remove stones and to smooth the surface. Areas to receive seeding shall be rolled smooth prior to seeding.
- C. Other

2.13 Planting:

- A. Seeding: Shall be quality perennial grasses suitable for mixed sun and shade and tolerating moderate traffic with 4 pounds of seed per 1000 square feet. Rake seed into top 1/8" of soil and roll lightly. After seeding lightly, mulch or provide jute anti-erosion netting. After grass starts coming up, mulch is to be removed. Lawn is to be limed, fertilized and watered as necessary to ensure survival and optimal conditions for establishing a strong lawn. Contractor shall seed all disturbed areas on site not to receive other finished surface.

2.14 Underground Utilities: Protect existing utilities in place.

2.15 Asphalt Concrete Paving

- A. All work shall be in compliance with New Hampshire Department of Transportation's Standard Specifications for Road and Bridge Construction, Division 400, Pavements. The contractor and material producer shall provide certification that materials comply with requirements.
- B. Installer shall review and approve sub base conditions prior to installing 1 1/2" asphalt concrete binder course of bituminous (NHDOT, Item 403.11, Type B) pavement, and a 1" bituminous pavement top course (NHDOT, Item 403.11, Type E).
- C. Apply only at ambient air temperatures above 50° F and when weather forecasted conditions are within state standards.
- D. Roll material as required to properly blend existing surfaces and new surfaces as well as to achieve optimal material density.

2.16 Site Stonework

- A. Cobblestone Edging
 - 1. Create an edging at pavers at all new edges of existing or new paving as shown on drawings. Coordinate exact configuration and detailing with the Owner and Architect on site.

2.17 Walkways:

- A. Asphalt Paving: Patch or replace paved walks with new paving.

END OF SECTION