



**SPECIFICATIONS FOR COMPLETION OF
CLEANUP PLAN AND INSTALLATION OF ENVIRONMENTAL CAP**

**BAST PROPERTY
SOUTH MAPLE WAY
BOROUGH OF AMBLER,
MONTGOMERY COUNTY, PENNSYLVANIA**

RT PROJECT #70461-11

PREPARED FOR:

**AMBLER CROSSINGS DEVELOPMENT PARTNERS, LP
201 SOUTH MAPLE AVENUE
SUITE 100
AMBLER, PA 19002**

SUBMITTED BY:

**RT ENVIRONMENTAL SERVICES, INC.
215 WEST CHURCH ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406**

SEPTEMBER 2015

RT Environmental Services, Inc.

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INFORMATION FOR BIDDERS

1.1 PREBID MEETING

A mandatory pre-bid meeting will be held on Wednesday September 16, 2015 at 7 AM prevailing time at 201 South Maple Avenue, Ambler, PA 19002.

1.2 ALTERNATES

See the attached Bid Form.

1.3. BID SUBMITTALS

All bidders must submit the Bid Response Sheet.

1.4 TRANSPORTATION AND DISPOSAL

Transportation and disposal services for the removal and disposal of magnesia materials and/or asbestos containing materials are included in the work of the CONTRACTOR.

1.5 BIDDER QUESTIONS

Questions from bidders concerning these bid specifications are to be received, in writing, at RT Environmental Services, Inc., 215 West Church Road, King of Prussia, PA 19406, Fax 610-265-0687 Attn: Gary Brown, no later than October 21, 2015 at 11:00 AM prevailing time.

1.6 BID DUE DATE

Bids are due at RT Environmental Services, Inc., 215 West Church Road, King of Prussia, PA 19406, Fax 610-265-0687 Attn: Gary Brown, no later than November 4, 2015, at 1:00 PM prevailing time.

Fixed Sum Contract

THIS AGREEMENT, Made as of the ____ day of _____, in the Year of 2015

Between the Owner: **Ambler Crossings Development Partners, L.P.**
201 South Maple Avenue, Suite 100
Ambler, PA 19002

And the Contractor: Tbd

For the Project: **Completion of Clean Up Plan and Installation of**
Environmental Cap - Ambler Crossings
New Falls Road & Wistar Rd.
Ambler , PA 19002

Engineer: **RT Environmental**

Civil Engineer: **Langan Engineering**

Geotechnical Engineer: **Earth Engineering Incorporated**

Township **Ambler Borough**

ARTICLE 1 Contract Documents

1.1. The Contract Documents consist of this Contract and the documents enumerated as follows:

Specifications For Completion of Clean-Up Plan and Installation of Environmental Cap prepared for Ambler Crossings Development Partners, L.P. and prepared by RT Environmental Services, Inc. dated September 2015 inclusive of all requirements, attachments and other references to the work.

Standard General Conditions of the Construction Contract - Exhibit "1"

Supplemental General Conditions of the Construction Contract – Exhibit "2"

1.2. By executing this Contract, Contractor acknowledges and warrants that it has carefully reviewed and examined the Contract Documents and acknowledges and declares that it has no knowledge of any discrepancies, omissions, ambiguities, or conflicts in the Contract Documents and Contractor covenants that if it becomes aware of any such discrepancies, omissions, ambiguities, or conflicts, it will promptly notify Owner of such fact. If Contractor performs any construction activity knowing it involves an error, inconsistency or omission in the Contract Documents without prior written notice to Owner and directions on how to proceed, Contractor shall assume appropriate responsibility for such performance and shall bear the costs for correction.

1.3. The Contractor acknowledges and agrees that the Proposal is being attached hereto and made a part of this Contract for the sole purpose of referencing and incorporating into this Contract the scope of services described in the Proposal. Any terms and conditions referenced or made a part of the Proposal are not incorporated into or made a part of this Contract and shall be expressly superseded by the terms and conditions of this Contract. Notwithstanding the dates of plans referenced in the Proposal, the Work shall conform to the plans listed in Exhibit "A".

ARTICLE 2 Scope of Work

2.1. Contractor shall furnish the services, and/or all materials, labor, construction equipment, tools and/or supplies in strict accordance with the Contract Documents (the "Work"), and shall carry out all obligations, duties and responsibilities imposed on Contractor as specified in the Contract Documents.

2.2. Prior to commencement of Work, the Contractor shall submit to Owner, in writing, the names of all subcontractors and suppliers that it plans to utilize to perform the Work. The Owner shall have the right to object to a subcontractor or supplier that Contractor plans to utilize, and the Owner agrees not to utilize a subcontractor or supplier to whom the Contractor has made timely and reasonable objection. The Contractor shall not change a subcontractor or supplier previously named without the written consent of the Owner.

ARTICLE 3 Time of Completion

3.1. The date of commencement of the project shall be on or around January 1, 2016.

3.2. The date of completion of the entire Work shall be no later than 180 days following Contractor's receipt of a "Notice to Proceed" from the Owner.

3.3. The Contractor hereby acknowledges and agrees that time shall be an essential part of this Contract, and Owner will suffer damages if the Contractor fails to achieve completion of the entire Work by the date specified under this Article 3. Contractor's failure to achieve completion of the building pad and entire Work by the date specified under this Article 3 shall be deemed a material breach of the Contract, and Contractor shall be liable for any damages suffered or incurred by Owner as a result of such breach.

ARTICLE 4 The Contract Sum

4.1. The Contractor agrees to fully and timely complete the Work for a stipulated sum (hereinafter "Contract Sum") of tbd, (\$tbd), subject to additions and deductions pursuant to authorized change orders and allowances.

Initialed by: Owner _____ Contractor _____

ARTICLE 5 Progress Payments

5.1. Prior to the commencement of the Work, Contractor shall submit to Owner a Schedule of Values allocated to various portions of the Work and supported with such data and information to substantiate its accuracy as the Owner may require. Owner's approval of the Schedule of Values shall be a condition precedent to the right of Contractor to receive any progress payment. The Schedule of Values shall be used as a basis for reviewing the Contractor's applications for payment.

5.2. Contractor shall submit to Owner an Application for Payment, utilizing AIA Documents G702 and G703 forms, by the first (1st) day of any month. The Applications for Payment shall indicate the percentage of completion of each item of Work identified in the approved Schedule of Values.

5.3. Contractor shall submit with each Application for Payment, a fully executed AIA Document G706 entitled "Contractor's Affidavit of Payment of Debts and Claims", AIA Document G706A "Contractor's Affidavit of Release of Liens and a partial release of claims and liens in the form provided by Owner.

5.4. Within forty-five (45) days of receipt of Contractor's application for payment and conditioned upon the approval of said application for payment by Owner, Civil Engineer and Township, the Owner will make payments to the Contractor provided that the work for which Contractor is requesting payment is completed in strict accordance with the Contract Documents and to the satisfaction of Owner and the Township releases the funds held in escrow or other financial security provided by Owner to Township relating to the Work for which Contractor is requesting payment. The Owner's and Township's review and approval of the Application for Payment and the Township's release of escrow funds or other financial security provided by Owner to Township relating to the Work for which Contractor is requesting payment shall be a condition precedent to Owner's obligation to make payment to Contractor.

5.5. Contractor shall submit with each application for payment and progress payment is conditioned on the submission of the following documentation: (1) a release of lien rights against the Project and claims against Owner with respect to monies previously paid to the Contractor, and monies to be paid pursuant to the application for payment (in the form provided by Owner) executed by it and its subcontractors and suppliers; and (2) such other documents in form, scope and substance as the Owner and/or Township may reasonably require or as the Contract Documents require for disbursements of funds. Owner's receipt of the aforementioned documentation is a condition precedent to Owner's obligation to make progress payments to Contractor.

5.6. To ensure satisfactory completion of Contractor's Work, Owner shall withhold retainage of five percent (5%) from each progress payment of the amount approved for payment to the Contractor until final inspection and acceptance of Work by the Owner. Progress payments to

Initialed by: Owner _____ Contractor _____

Contractor shall thereby reflect ninety-five percent (95%) of labor and material which have been incorporated into the Work during the period covering the application for payment.

5.7. Retainage shall be withheld and not released until: (1) Contractor's Work is accepted by Owner, Civil Engineer, Geotechnical Engineer, Township and Tenant's engineer; (2) Contractor's obligations under the Contract Documents are completed in full to the satisfaction of Owner, Civil Engineer, Geotechnical Engineer and Township; and (3) Township releases the remaining funds held in escrow and/or other financial security provided by Owner to Township relating to the Work. Acceptance of Contractor's Work by Owner, Civil Engineer, Geotechnical Engineer, Tenant's engineer and Township and the Township's complete and full release of the escrow funds and/or other financial security provided by Owner to Township relating to the Work shall be a condition precedent to the release of retainage to Contractor.

ARTICLE 6 Final Payment

6.1. Within forty-five (45) days of receipt of Contractor's final application for payment and conditioned upon the approval of said application for payment and acceptance of Contractor's Work by Owner, Civil Engineer and Township, the Owner will make final payment provided that the work for which Contractor is requesting payment is completed in strict accordance with the Contract Documents, Contractor has met all conditions precedent to receiving final payment as specified in the Contract Documents and Contractor's obligations under the Contract Documents are completed in full to the satisfaction of Owner, Civil Engineer, Geotechnical Engineer, Tenant's engineer and Township.

6.2. Notwithstanding the foregoing provision, the Township's complete and full release of the escrow funds and/or other financial security provided by Owner to Township relating to the Work shall be a condition precedent to Owner's obligation to release final payment to Contractor.

6.3. Acceptance of Final Payment shall constitute a waiver of all claims by the Contractor, but shall in no way relieve the Contractor of liability for the obligations assumed under this Contract, or for faulty, incomplete or defective work discovered after Final Payment.

ARTICLE 7 Contractor

7.1. The Work shall be in strict accordance to the provisions of the Contract Documents.

7.2. The Work shall be completed in a proper workmanlike manner, and shall comply with all applicable national, state and local building codes, regulations and laws.

7.3. The Work shall be performed by licensed and experienced individuals and trades.

Initialed by: Owner _____ Contractor _____

7.4. Contractor shall provide all temporary construction facilities (including but not limited to, field offices, change houses, sanitary facilities, safety barriers, construction fence, etc.) and remove such facilities from the premises upon completion of the Contractor's Work.

ARTICLE 8 Owner

8.1. The authorized representatives of the Owner are John Zaharchuk and John Cogan.

8.2. Owner shall communicate with subcontractors only through the Contractor.

8.3. The Owner will not assume any liability or responsibility, nor supervise, direct or have control over or charge of construction means, methods, techniques, sequences, procedures, or for safety precautions and programs in connection with the project, since these are solely the Contractor's responsibility.

8.4. All notices to Owner as required to be submitted under the Contract Documents shall be directed to Owner's authorized representatives identified herein.

ARTICLE 9 Insurance

9.1. The Owner will purchase and maintain property insurance to the full and insurable value of the Project, which may include coverage for fire, vandalism, malicious mischief or other perils.

9.2. The Contractor shall procure and maintain in full force and effect all insurance policies specified in the Contract Documents.

9.3. The Owner and Contractor waive all rights against each other and any of Contractor's subcontractors, sub-subcontractors, agents, and employees, each of the other, and against the Owner's consultants, separate contractors, and any of their subcontractors, sub-subcontractors, agents and employees for any damages or loss to the extent covered by insurance procured and maintained by Contractor or Owner. The policies shall provide such waivers of subrogation by endorsement or otherwise. This waiver of subrogation shall in no way nullify or waive the Contractor's obligation to indemnify Owner pursuant to Article 13 of the General Terms and Conditions, Exhibit "1" hereto.

ARTICLE 10 Miscellaneous

10.1. **Assignment:** Neither this Contract nor any claim against Owner arising directly or indirectly out of or in connection with this Contract shall be assignable by Contractor without Owner's consent in writing. Owner shall have the right to assign this Contract to any subsidiary or affiliate of Owner or any other entity, without the consent of Contractor.

Initialed by: Owner _____ Contractor _____

10.2. No Waiver: No waiver by either party of any breach of any of the covenants or conditions herein contained shall be construed a waiver of any succeeding breach of the same or of any other covenant or condition.

10.3. Entire Agreement: This Contract represents the entire agreement between Owner and Contractor and supersedes any prior written or oral representations. This Contract cannot be modified by oral agreements, and shall be modified only by a writing signed by both parties.

10.4. Severability: In the event that any term, provision or part of this Contract is held to be illegal, invalid or unenforceable under law, regulations, ruling, order or ordinance of any federal, state or local government to which this Contract is subject, such term or provision, or part thereof, shall be deemed severed from this Contract and the remaining terms and provisions shall remain unaffected thereby.

10.5. Governing Law: This Contract shall be governed by and construed in accordance with the laws of the Commonwealth of Pennsylvania without regard to that state's otherwise applicable conflict of laws principles.

10.6. Captions: Captions used in this Contract and the General Conditions are not part of this Contract and are for convenience of reference only and shall not affect the meaning or construction of any of its provisions.

10.7. Notices: All notices under this Contract shall be in writing and addressed to Owner or Contractor as the case may be, and directed to the individual specified on the face of this Contract.

10.8. Authorization: The Contractor warrants, represents and covenants that the execution and delivery of this Contract has been duly authorized by all requisite corporate action and that the persons executing this Contract are duly authorized to do so and to deliver such to Owner.

10.9. Signed in Counterpart: This Contract may be executed in one or more counterparts, each of which shall be deemed to be an original instrument, but all such counterparts shall constitute one and the same instrument.

10.10. Execution: This Contract shall be signed by both the Owner and Contractor. In the event that this Contract is not fully executed by Owner and Contractor, this Contract shall be deemed null and void.

Initialed by: Owner _____ Contractor _____

Standard General Conditions of the Construction Contract
Completion of Clean Up-Plan and Installation of Environmental Cap
Ambler Crossings, Ambler, PA
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OWNER

CONTRACTOR

Print Name: _____

Print Name: _____

Title: _____

Title: _____

EXHIBIT "1"

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

ARTICLE 1 PROSECUTION OF THE WORK.

1.1. Contractor shall furnish the services, and/or all materials, labor, construction equipment, tools and/or supplies in strict accordance with the Contract Documents, and shall carry out all obligations, duties and responsibilities imposed on Contractor as specified in the Contract Documents.

1.2. Contractor represents to Owner that it has the necessary expertise, skill and ability to perform the Work. Contractor agrees that, in carrying out all the Work required by the Contract Documents, Contractor will exercise the skill, expertise, and diligence normally exercised by similar licensed contractors in carrying out work of a similar nature and scope.

1.3. If Owner has permitted Contractor to begin any Work before this Contract has been issued and executed by Contractor, and that work is within the definition of "Work", Contractor agrees that said work shall be governed by, and shall be deemed to have been carried out in strict accordance with the Contract Documents.

1.4. The Contractor shall provide a full time, competent superintendent who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor. The superintendent shall be under the employment of the Contractor.

1.5. Contractor shall comply with all local, state and federal rules, regulations, orders, directives and statutes applicable to wage and employment practices and shall act in the best interest of Owner on matters which affect area labor practices and might lead to or set precedent, and Contractor shall supply such evidence of compliance as Owner may require. Contractor warrants and agrees that it has used and will continue to use due diligence to ensure that during the performance of this Contract, no officer, employee, agent or other representative of Contractor has made or will make any payment in violation of any applicable federal, state, or local law or regulation, and all amendments therein.

1.6. Contractor shall comply with all applicable codes, regulations, rules, ordinances and laws applicable to the Work (including but not limited to, all applicable health, safety and environmental laws, rules and regulations), and Contractor represents that the Contract Sum includes all costs to be incurred for such compliance. Contractor shall indemnify Owner for any and all damages, costs, expenses and losses incurred by Owner resulting from Contractor's or its subcontractor's failure to comply with such codes, regulations, rules, ordinances and laws. In the event that an order, action or suit is undertaken against Owner for violations of any code, rule, regulation, ordinance or law as a result of conditions allegedly created or controlled in whole or in part by Contractor or its subcontractors, or any person for whom the Contractor is responsible, Contractor shall indemnify and hold harmless Owner from all costs, expenses, damages, judgments (including attorneys' fees) assessed or incurred by Owner in connection with such order, action or suit.

1.7. By executing the Contract, Contractor represents that it has, acting as a skilled and experienced contractor, conducted a careful investigation and examination of the Project site to ascertain the nature and location of the site and other reasonably discoverable conditions that may affect its Work, including topographical features, water on or near the site, roads, the size and shape of the site and its ability to accommodate the various trades and any required storage, features affecting transportation, vegetation or physical barriers, rocks, rubble, or existing structures or impediments to construction, and the like. No plead of ignorance of conditions that exist or that may hereafter exist, or of the difficulties that will be encountered in the performance of the Work, as a result of failure to make necessary examinations and investigations, will be accepted as sufficient excuse for any failure or omission on the part of the Contractor to fulfill in every detail all the requirements of the Contract Documents, or will be accepted as a basis for any claim whatsoever for extra compensation or for an extension of time.

1.8. Contractor shall be responsible for verifying the location of all private and public utility lines and shall perform the Work in such manner so as to avoid damaging such lines. Contractor shall comply with the Pennsylvania Underground Utility Line Protection Law and shall indemnify Owner for any and all damages, costs, expenses and losses incurred by Owner resulting from Contractor's or its subcontractor's failure to comply with such law. With the exception of any utility line incorrectly or improperly identified on any of the Drawings listed in Exhibit "A", Contractor shall cause to repair or replace, at its own expense, any damage to a public utility line caused by Contractor or its subcontractor regardless if the public utility was mismarked, misidentified or unmarked by the public utility company, and Contractor shall not be entitled to additional time or compensation as a result of damage it or its subcontractor caused to a public utility line. Contractor shall be responsible to repair or replace, at its own expense, any damage to a private utility line caused by Contractor or its subcontractor, provided that such private utility line was accurately marked and identified in the Contract Documents or the field, and Contractor shall not be entitled to additional time or compensation as a result of damage it or its subcontractor caused to the private utility line that was accurately marked or identified in the Contract Documents or the field.

1.9. The soil investigation report prepared for this Project and furnished to the Contractor was furnished as general information only, and is not a warranty or representation by Owner of subsurface conditions.

1.10. By executing the Contract, the Contractor acknowledges that the Contract Documents are: (1) full and complete; (2) sufficient to have enabled it to determine the Contract Sum; (3) sufficient to enable the Contractor to construct the Work outlined therein in accord with applicable laws, statutes, ordinances, codes and regulations, and otherwise to fulfill all of its obligations under the Contract Documents; and (4) sufficient to enable the Contractor to complete the Work within the time contemplated under the Contract Documents.

1.11. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, the Contractor shall evaluate the jobsite safety thereof and shall be fully and solely responsible for the jobsite safety of such means, methods, techniques, sequences or procedures. If the Contractor determines that such

means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely written notice to Owner and shall not proceed with that portion of the Work without further written instructions from Owner.

1.12. Contractor, at its expense, shall take necessary precautions to protect its Work and the work of other contractors from damages caused by its operations. Contractor shall indemnify Owner for any and all damages to the work of other contractors caused by Contractor's or its subcontractor's operations.

1.13. The Contractor shall also take necessary precautions, at its own expense, to protect and avoid damaging existing facilities not slated for demolition and removal and the work performed by Tenant's contractors.

1.14. In the event any work on or for the Project is being performed by Tenant's contractor(s) at the same time as Contractor's Work, Contractor shall coordinate its work with Tenant's contractor's work so that the work being performed by both Contractor and Tenant's contractor shall be completed in a timely and efficient manner, and Contractor shall use its best efforts to avoid disturbance and hindrance of Tenant's contractor's work.

1.15. Contractor shall store all trash, debris, and rubbish relating to Contractor's Work at locations reasonably approved by Owner. Promptly upon the completion of Contractor's Work, Contractor shall remove all temporary structures, surplus materials, trash, debris and rubbish of whatever kind remaining on the property.

1.16. Contractor's Work shall be properly protected with lights and barricades and secured against accident, storm and any other hazard.

1.17. Contractor shall at all times use its best efforts and judgment as an experienced contractor to adopt and implement policies and practices designed to avoid work stoppages, slowdowns, disputes, or strikes where reasonably possible and practical under the circumstances and shall at all times maintain Project-wide labor harmony. Contractor shall provide written notice to Owner of any work stoppages, slowdowns, disputes, or strikes within two (2) calendar days of the occurrence of such event. Except as specifically provided in the Contract Documents, Contractor shall not be entitled to any adjustment in the Contract Sum and Contract Time as a result of work stoppages, slowdowns, disputes, or strikes by the work force of or provided by Contractor or its subcontractors.

1.18. If picketing, strikes, labor disputes, job slowdowns, or other labor related job actions occur at the Project which in any way arise from or relate to the use of union or non-union labor by Contractor, then Contractor shall, at its sole expense, take appropriate action to limit or eliminate the effect of such picketing, strikes, labor disputes, job slowdowns or other labor related job actions. Such action by Contractor shall include, but not be limited to, taking legal action to stop, or limit, picketing, strikes, labor disputes, job slowdowns, or other labor related job actions which are affecting progress of the work on the Project. The cost of taking such legal action, including without limitation legal fees, court costs, and injunction bonds, shall be borne entirely by the Contractor.

ARTICLE 2 PAYMENT

2.1. Owner shall make payment of all sums due and owing to Contractor after Contractor's timely submission of an application for payment to Owner. Owner will not pay for materials purchased and stored for use in the Work, but not yet incorporated into the Work, unless Owner has expressly agreed to such payments, in writing, and then only on the following conditions: (1) Contractor shows that payment is being requested only for a reasonable amount of material, necessary to support its prompt performance of the Work; (2) the material has been properly stored on the Project site or other property approved by Owner; (3) Contractor certifies that it has inspected the material and that it is not subject to any defect or non-conformity that could reasonably be discovered by careful inspection; (4) upon Owner's request, Contractor will execute documentation to confirm that good title to Owner will pass upon payment; and (5) Contractor certifies that the material are fully insured against theft, loss and damage.

2.2. The following are conditions precedent to the right of Contractor to receive any progress payment from Owner: (i) Contractor has provided Owner with a certificate of insurance required herein; (ii) fully executed Contract; (iii) Contractor has provided Owner with a schedule of values, and schedule of values has been approved by Owner; (iv) Contractor has provided to Owner with a partial release of liens and claims signed by it and its subcontractors and suppliers in the form provided by Owner; and (v) Contractor has provided Owner with a written list of subcontractors and suppliers.

2.3. Neither progress payments, nor partial or entire use of the Work by Owner, shall constitute an acceptance or approval of any of Contractor's Work that is defective or otherwise is not in accordance with the Contract Documents, or constitute a waiver of any claim or right that Owner may then or thereafter have against Contractor.

2.4. Contractor warrants that title to all the Work covered by an application for payment will pass to Owner at the earlier of incorporation into the Project or the time of payment. Contractor also warrants that, upon submittal of an application for payment, all Work for which payments have been received from Owner will be free and clear of liens, claims, security interests or encumbrances in favor of Contractor or any other person or entity performing construction at the Project site or furnishing materials or equipment relating to the Work.

2.5. Contractor hereby agrees to make prompt payment to its subcontractors, suppliers and materialmen, and that such prompt payment is of the essence under this Contract. In the event Contractor or its subcontractors or materialmen, or any party acting through or under it or them, fail to pay any sum of money due to any party providing labor, material or equipment in the prosecution of the Work, including union dues, Owner, in addition to any other rights and remedies provided by this Contract or by law, is hereby authorized to retain out of any payment due or become due under this Contract any portion of said unpaid sum and to pay such sum directly to the party to whom such sum is due. Owner may, in its sole discretion as an alternative to other rights or remedies expressed herein, make any payment or portion thereof by joint check payable to Contractor and any of its subcontractors, suppliers and/or materialmen. This provision is not intended to and shall not create any rights against Owner by any third party.

2.6. Owner may withhold payments if any of the following occurs: (1) the Work is defective and the defects have not been remedied; (2) Contractor's fails to perform the Work in

strict accordance with the Contract Documents; (3) Contractor has failed to pay subcontractors or suppliers promptly, or has made false or inaccurate certifications that payments to subcontractors or suppliers are due or have been made; (4) any construction lien or mechanic's lien claim has been filed against Owner, the Project site or any portion thereof or interest therein, or any improvements on the Project site for Work previously paid by Owner and/or in breach of any written release signed by Contractor, and Contractor, upon notice, has failed to remove the lien, by bonding it off or otherwise, within the time allowed by this Contract; (5) Owner has reasonably determined that Contractor's progress has fallen behind the Project Schedule, and Contractor fails, within five (5) business days of Owner's written demand, to provide Owner with a realistic and acceptable plan to recover the delays or to accelerate the Work as directed; (6) reasonable evidence that the Work cannot be completed for the unpaid contract balance; and/or (7) damages incurred or suffered by Owner as a result of a material breach of any provision in the Contract Documents.

ARTICLE 3 FINAL PAYMENT

3.1. As a condition precedent to final payment, Contractor shall deliver (1) a final release of liens and claims signed by it and its subcontractors in the form provided by Owner; (2) all warranty and guarantee documents required by this Contract; (3) any instruction or operation manuals or instructions required by this Contract; and (4) all other documents delivery of which is required by provisions elsewhere in the Contract Documents. If any liens have been threatened or asserted against Owner or its property as a result of the Work previously paid by Owner and have not been removed by Contractor, Owner may cause Contractor to post a bond, or other form of security acceptable to Owner, covering liability and costs (including attorneys' fees) arising from the lien claim as a condition of receiving final payment.

3.2. Acceptance of final payment shall constitute a waiver of all of Contractor's claims and liens relating to or arising from the Work or this Contract.

ARTICLE 4 WARRANTIES

4.1. Contractor warrants that it shall perform the Work: (1) with due diligence and in a safe, workmanlike, and competent manner and in accordance with sound construction practices and standards; (2) in compliance with all applicable laws, codes, regulations or other standards applied by any governmental entity having jurisdiction over the Work; (3) in accordance with all applicable manufacturer's requirements; (4) in strict accordance with the Contract Documents; and (5) free from defects. Contractor's warranty shall extend for twelve (12) months from final inspection and acceptance by Owner, Civil Engineer, Geotechnical Engineer, Tenant's engineer and Township. If the Contract Documents require warranty terms that are of longer duration or require a higher standard of performance than is set forth in this Section, the more stringent or extensive warranty requirements shall apply. This warranty shall be in addition to, and shall not limit, any warranty of materials provided by any manufacturer or supplier of equipment or materials incorporated in the Work, and any other remedies Owner may have pursuant to applicable law. The warranty shall not be deemed to establish a period of limitation or prescription within which such other rights or remedies must be asserted.

4.2. If Contractor is supplying materials or equipment under this Contract, Contractor shall obtain standard commercial warranties from all material or equipment manufacturers. If

Owner so requests, Contractor shall also provide reasonable assistance in determining whether superior warranty terms are available from a vendor and in obtaining such terms for Owner. If warranty terms are available, but only at increased cost, and Owner elects to obtain such terms, Owner shall pay the additional cost, over and above the Contract Sum.

4.3. Within five (5) days after being notified in writing by Owner of any breach of Contractor's warranties, Contractor shall commence, and thereafter complete as promptly as reasonably possible, repair or replacement of the defective or non-conforming Work, at Contractor's sole expense. In addition, Contractor shall, at its sole expense, repair or replace any portions of the Work (or work of other contractors) damaged by the non-conforming Work or which becomes damaged in the course of repairing or replacing defective Work. For any Work so corrected, Contractor's obligation hereunder to correct defective Work shall be reinstated for the remainder of the original warranty period or six (6) months from the date on which the corrected Work is accepted, whichever is longer. Final payment by Owner or final acceptance of the Work shall not relieve Contractor from its responsibilities under this Section.

4.4. Alternatively, if in the sole discretion of Owner, the defective or non-conforming Work creates an immediate risk to person or property or is critical to Owner's operations, Owner may undertake the repair or replacement of the defective or non-conforming Work and backcharge Contractor for all reasonable costs associated with the repair or replacement of the defective or non-conforming Work. In no event, will any work undertaken pursuant to this Section limit, impair or void any warranties provided by Contractor.

4.5. The warranties set forth herein shall not affect or limit any of Owner's other rights or remedies provided by the Contract or applicable law and shall not be deemed to establish a period of limitation or prescription within which such other rights or remedies must be asserted.

ARTICLE 5 INDEPENDENT CONTRACTOR

5.1. Contractor and its subcontractors shall be independent contractor with respect to the Work, and neither Contractor nor its subcontractors, nor any person employed by any of them shall be deemed to be Owner's employees, servants, or agents in any respect. Nothing in this Contract shall be construed as creating a joint venture or partnership between Owner and Contractor. Contractor, as an independent contractor under this Contract, shall assume all of the rights, obligations and liabilities, applicable to it as such independent contractor hereunder and any provisions in this Contract which may appear to give Owner the right to direct Contractor as to details of doing the Work herein covered or to exercise a measure of control over the Work shall be deemed to mean that Contractor shall follow the desires of Owner in the results of the work only.

ARTICLE 6 SUBCONTRACTS

6.1. In the event that Contractor subcontracts any of the Work, Contractor shall be solely responsible for the engagement and management of its subcontractors in the performance of the Work in accordance with the terms of this Contract, for the performance of the Work by its subcontractors and for all acts or omissions of subcontractors. Contractor shall ensure that all Work furnished or performed by its subcontractors is in strict conformance with the Contract Documents. No contract or agreement with any permitted subcontractor shall bind, or purport to

bind, Owner, or give the subcontractor a right to seek compensation or damages from Owner. Contractor shall remain responsible for all Work performed by its subcontractors.

6.2. The Contractor shall require each subcontractor, to the extent of the Work to be performed by the subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the subcontractor's Work, which the Contractor, by these Documents, assumes toward Owner. Each subcontract agreement shall preserve and protect the rights of Owner under the Contract Documents with respect to the Work to be performed by the subcontractor so that subcontracting thereof will not prejudice such rights. The Contractor shall require each Subcontractor to enter into similar agreements with sub-subcontractors. The Contractor shall make available to each proposed subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the subcontractor will be bound. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed sub-subcontractors.

6.3. Contractor shall require each Subcontractor to procure and maintain insurance for the same types of insurance and same limits that Contractor is required to procure and maintain in Article 14 herein.

ARTICLE 7 NO THIRD PARTY BENEFICIARIES

7.1. Nothing in this Contract, express or implied, is intended or shall be construed to confer upon or give to any person, firm, corporation, or legal entity, other than the parties, any rights, remedies or other benefits under or by reason of this Contract.

ARTICLE 8 TAXES AND FEES

8.1. Unless otherwise required by law, Contractor has exclusive liability for sales, use, excise and other taxes, charges or contributions with respect to or imposed on any material or equipment supplied or Work performed by Contractor, including such taxes or contributions imposed on the wages, salaries or other payments to persons employed by Contractor or its subcontractors in the performance of this Contract. Contractor shall pay all such taxes, charges, or contributions before delinquency or discount date and shall indemnify and hold Owner harmless from any liability and expense by reason of Contractor's failure to pay such taxes, charges or contributions.

ARTICLE 9 SAFETY

9.1. Contractor shall comply with all applicable local, state and federal health and safety requirements, codes, rules, regulations and laws, including, but not limited to, the Occupational Health and Safety Act ("OSHA") of 1970 as amended. Contractor represents that the Contract Sum includes all costs to be incurred for such compliance. Contractor shall indemnify Owner for any and all damages, costs, expenses and losses (including attorneys' fees) incurred by the Owner for fines, penalties and corrective measures resulting from Contractor's failure to comply with such codes, regulations and laws.

9.2. The Contractor at all times shall be the controlling employer responsible for the safety programs and precautions applicable to its Work and the activities of others' work in areas

designated to be controlled by Contractor. The Contractor shall control the activities of its employees, its subcontractors, and any other persons or entities for whom the Contractor is responsible, and shall be obligated to ensure that its employees, its subcontractors, and any other persons or entities for whom the Contractor is responsible comply with all applicable local, state and federal health and safety rules, regulations and laws. The Contractor shall be liable for each hazardous or dangerous condition that the Contractor creates or controls, and shall be responsible for preventing its employees, subcontractors, and persons or entities for whom the Contractor is responsible from being exposed to any hazardous or dangerous condition. The Contractor shall continuously inspect its Work, materials and equipment to discover any hazardous and dangerous conditions and shall be solely responsible for discovering and correcting any hazardous or dangerous conditions.

9.3. Owner, at its sole discretion and without liability to Owner, may require Contractor to remove from the Project site any and all personnel of Contractor or its subcontractors who violate any applicable local, state and federal health and safety codes, rules, regulations and laws.

9.4. Owner retains the authority to stop any Work that Owner, in its sole discretion, deems unsafe until corrective measures acceptable to Owner have been implemented. Any action by Owner hereunder shall not be construed to extend direct control over or charge of the acts or omissions of the Contractor, subcontractors or their agents or employees. Owner's aforementioned authority to stop Work shall not be construed as a duty upon Owner to ensure that the Contractor's work is safe at all times. Contractor shall not be entitled to an extension of time or additional compensation as a result of Owner directing Contractor to stop Work hereunder and shall indemnify and hold harmless Owner for any damages or loss as a result of delay to the completion of the Project due to the stoppage of Work hereunder.

ARTICLE 10 INSPECTION, TESTING AND ACCEPTANCE

10.1. When any system or component of the Work is completed and required to be tested pursuant to the Contract Documents, Contractor shall so notify Owner, and Owner, Civil Engineer and/or Geotechnical Engineer, at their option, may witness any tests to be performed. If any of the Work fails to meet any specified tests, Contractor shall remedy any defect and repeat such tests until the specified tests are successfully completed. When all Work is completed and tested as required, Contractor shall so notify Owner, and Owner, Civil Engineer and/or Geotechnical Engineer shall have the right to a final inspection of the Work and to review any and all test records and reports maintained by Contractor. Owner shall promptly either notify Contractor of its acceptance of the Work or issue to Contractor a listing of additional tests required in order for the Work to conform to the Contract Documents.

10.2. Owner shall have the right, at Owner's expense, to perform (or cause to be performed) tests on and/or inspections of any part of the Work at any time. Contractor agrees to have any item of the Work to which Owner objects inspected or tested by Civil Engineer and/or Geotechnical Engineer, at Owner's election, to provide access to Owner, Civil Engineer and/or Geotechnical Engineer to inspect or test any such item ("Owner's Test"). If Owner's Test reveals that the item of the Work is defective (i.e., not in accordance with the Contract Documents), and provided that Owner has provided objective evidence of such defective item, Contractor shall, within a commercially reasonable period of time, cause such defect item to be corrected, and in such circumstances Contractor shall reimburse Owner for the cost of Owner's Test within ten (10)

business days after notice to Contractor, together with an invoice or other documentation substantiating such costs, from Owner. Notwithstanding the foregoing, any Owner Test and any failure to reject or object to any of the Work shall not constitute, nor be deemed to be evidence of, any approval by Owner of the Work, nor be deemed to be a waiver by Owner of, or a release of Contractor from, Contractor's obligation hereunder to construct and complete the Work in accordance with the Contract Documents, nor diminish or otherwise affect Owner's right to rely upon the statements made in any certification given to Owner with respect to the Work.

10.3. Contractor agrees to provide Township with free and unhampered access at all times during normal working hours for the purpose of inspecting the Work.

ARTICLE 11 MATERIALS AND EQUIPMENT

11.1. Materials furnished by the Contractor shall be new, free of defects and conform with the Contract Documents. Contractor shall not make any substitutions of materials or manufacturers specified in the Contract Documents without prior written consent by Owner.

11.2. If the Contractor is assigned a designated storage area for its material, equipment and tools, it shall not store any item outside of designated area. Contractor shall, at its own expense, take necessary precautions to protect its materials, supplies, tools and equipment from damage, theft, loss and injury.

11.3. The Contractor shall be responsible for the delivery, receipt, unloading, storage and protection of all materials and equipment. Contractor shall bear the risk of loss, damage or theft of materials and equipment to be incorporated in the Work until final inspection and acceptance by Owner.

ARTICLE 12 BONDS

12.1. If requested by Owner, in writing, Contractor shall furnish performance and payment bonds covering the faithful performance of this Contract. Such bonds shall be in a form and amount and with a surety satisfactory to Owner. The cost of such bonds, without mark-up, shall be paid by Owner.

ARTICLE 13 INDEMNITY

13.1. Contractor agrees to defend, indemnify, and hold harmless Owner, Civil Engineer, Geotechnical Engineer, Tenant and Township, and each of their parents, their subsidiaries and affiliates, as well as the employees, agents, officers, directors, invitees, partners and assigns, and successors in interest of any of them from and against any and all claims, liabilities, expenses (including reasonable attorneys' fees), losses, damages, demands, fines and causes of action caused by or arising out of Contractor's failure to comply with applicable rules, codes, ordinances, laws and regulations.

13.2. Contractor agrees to defend, indemnify, and hold harmless Owner, Civil Engineer, Geotechnical Engineer, Tenant and Township, and each of their parents, their subsidiaries and affiliates, as well as the employees, agents, officers, directors, invitees, partners and assigns, and successors in interest of any of them (hereinafter collectively referred as "Indemnitees") from and against any and all claims, liabilities, expenses (including reasonable attorneys' fees), losses,

damages, demands, fines and causes of action caused by or arising out of the Work provided that such claim, damage, liability, cause of action, demand, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, including loss of use resulting therefrom, but only to the extent caused in whole or in part by the negligent acts or omissions of Contractor, its suppliers, subcontractors, agents, servants or employees, regardless of whether or not such claim, damage, liability, cause of action, demand, loss or expense is caused in part by the negligence or fault of any one of the Indemnitees; provided, however, that Contractor's obligations hereunder shall not apply to any claim, liability, expense, loss, damage, demand, or cause of action established to be the result of the sole negligence of an Indemnitee.

13.3. Contractor's defense, hold harmless and indemnity requirements, as set forth herein, shall not be limited by any applicable workers' compensation law or similar statute.

13.4. The Contractor's obligation of indemnity set forth herein shall survive termination or cancellation of this Contract.

ARTICLE 14 INSURANCE

14.1. Contractor and its subcontractors shall procure and maintain with reputable insurers with AM Best Company's of not less than "A:VII" policies of insurance written on an occurrence basis or on claims made basis (in which event insurance shall be maintained during the term of this Contract and for a period of two years following expiration or earlier termination of this Contract), with limits not less than those indicated for the respective items as follows:

Workers' Compensation and Occupational Disease Insurance at the statutory limits.

Employer's Liability Insurance with limits not less than: \$500,000 bodily injury by accident; \$100,000 bodily injury by disease (policy limit); and \$100,000 bodily injury by disease (each employee).

Commercial Liability Insurance with limits not less than: \$1,000,000 per occurrence combined single limit for bodily injury (including death) and property damage liability; \$2,000,000 general aggregate; \$2,000,000 products and completed operations; and \$1,000,000 personal and advertising.

Automobile Liability Insurance with limits not less than: \$1,000,000 bodily injury, personal injury & property damage combined each occurrence and general aggregate.

Umbrella (Excess) Liability Insurance with limits not less than \$5,000,000.

14.2. The foregoing descriptions of the insurance policies are not intended to be complete, or to alter or amend any provision of the actual policies. To the extent that the descriptions contained herein reduce coverage which might actually be afforded under the actual policies, the provisions of the actual policies shall govern.

14.3. In the event Contractor and its subcontractors have or obtain insurance coverage in amounts in excess of those listed above, such additional limits shall benefit Owner. It is to be understood that Owner does not in any way represent that the insurance or the limits of insurance specified in these paragraphs are sufficient or adequate to protect Contractor's and its subcontractors' interests or liabilities, but are merely minimums.

14.4. Contractor shall provide to Owner certificates of insurance of Contractor and its subcontractors acceptable to Owner prior to commencement of performance hereunder. All certificates of insurance shall (i) provide that coverage shall not be suspended, voided, canceled, non-renewed, reduced in scope or limits except after thirty (30) days' prior written notice has been given to Owner; and (ii) apply separately to each insured and additional insured against whom a claim is made or suit is brought, except with respect to the limits of the insurer's liability.

14.5. The coverages referred to above shall be primary and noncontributory over any other valid and collectable insurance. The certificate of insurance provided by Contractor and its subcontractors shall specifically set forth this primary endorsement.

14.6. The Commercial General Liability, Automobile Liability and Umbrella policies of Contractor and its subcontractors shall be endorsed to add, or shall have an existing blanket endorsement so as to add Owner, Civil Engineer, Geotechnical Engineer and Tenant (hereinafter collectively referred as "Additional Insureds") as an additional insured and shall provide that the coverage afforded to the Additional Insureds as an additional insured will be primary and noncontributory to any other coverage available to it. Upon request by Owner, Contractor shall promptly provide a copy of the additional insured endorsement and the insurance policies required to be maintained by Contractor under this Contract.

14.7. The insurance requirement set forth herein shall not in any way limit Contractor's liability arising out of this Contract, or otherwise, and shall survive the termination/cancellation of this Contract.

14.8. Contractor shall provide notice to Owner of any losses which may reduce the limits of liability for any insurance provided for Owner's benefit. Contractor will be required to replace any policy limits which are reduced due to any occurrences covered by such policies. Regardless of Contractor's notice to Owner of such losses, Contractor will be required to maintain and continue in force all policy limits required herein for the term of the Contract.

ARTICLE 15 USE OF PREMISES

15.1. All Work shall be performed in such a manner as to cause minimum interference with Owner's and/or Tenant's operations and the operations of other contractors on the premises. Contractor shall take all necessary and proper precautions to protect the premises and all persons and property thereon from damages or injuries. Contractor shall at all times keep the premises clean and free from accumulation of water, waste materials and rubbish. Upon completion of the Work, Contractor shall remove all tools, equipment, materials and rubbish and shall restore existing premises such as roads, other paved surfaces, fencing, curbing and the like to their original conditions, unless expressly stated otherwise in the Contract Documents.

15.2. Contractor shall minimize interference with roads, streets, walks, driveways and adjacent properties and improvement and shall not obstruct or block roads, streets, walks, driveways and adjacent properties without the express written permission from individuals having the appropriate jurisdiction.

15.3. Contractor shall be responsible to keep and maintain roads, streets, walks, driveways and adjacent properties free from dirt, dust, mud and debris originating from the Project site. Where the Contractor fails to comply with this provision, Owner shall have the right to clean or remove any dirt, dust, mud and debris from any roads, streets, walks, driveways and/or adjacent properties and backcharge Contractor for any costs incurred by Owner for such work. Contractor shall indemnify Owner for any and all damages, fines or penalties resulting from Contractor's failure to keep roads, streets, walks, driveways and adjacent properties free from dirt, dust, mud and debris, but only to the extent caused by Contractor's or its subcontractor's negligence.

15.4. After delivery of the building pad, Contractor shall keep all portions of the property substantially free from and unobstructed by equipment, materials or supplies related to Contractor's Work and will use its commercially reasonable efforts to keep obstructions to a minimum.

ARTICLE 16 CHANGES

16.1. Owner and Contractor may agree to make changes in the Work by adding work or deleting certain portions of the Work. Changes in the Work may only be accomplished by authorized change order. Owner shall exclusively control the preparation and issuance of change orders. As a condition precedent to Owner preparing and issuing a change order, Contractor shall submit a written proposal that includes a clear and precise breakdown of labor and materials for all trades involved in performing the changed scope of work and analysis of impact to the Project Schedule, if any, as a result of the change.

16.2. All change orders shall be in writing and signed by an authorized representative of Owner and Contractor. The change order shall describe the change in the Work and state the adjustment in Contract Sum and Contract Time, if any. Upon execution of the change order, the Contractor shall promptly proceed with the change in the Work.

16.3. The Contractor's agreement to a change order shall constitute a final settlement of all of the Contractor's rights, claims, and remedies relating to the change in the Work which is the subject matter thereof, including, without limitation, all direct and indirect costs, and all adjustments to the Contract Sum and Contract Time.

16.4. Contractor shall not perform any changes in the Work or extra work without a change order signed by an authorized representative of Owner. Adjustments in Contract Sum or Contract Time shall be accomplished only by change order signed by an authorized representative of Owner. Contractor hereby agrees that if it proceeds to perform any changes in the Work or alleged extra work without a change order signed by an authorized representative of Owner, it shall waive any claim for additional compensation and/or time for such work.

ARTICLE 17 CLAIMS

17.1. If any dispute arises between Owner and Contractor regarding the Work and Contractor wishes to make a claim for an adjustment in Contract Sum or Contract Time, Contractor shall give written notice of the claim prior to commencement of the disputed work or within three (3) days of after it first learns of the circumstances giving rise to the claim, whichever is earlier. Written notice of the claim within the time period specified herein shall be a condition precedent to mediation and litigation. Contractor's failure to give written notice of the claim within the time period specified herein shall constitute an agreement by Contractor that it will receive no extra compensation or time for performing the disputed work.

17.2. In the event a dispute arises between Owner and Contractor regarding the scope of work under the Contract Documents, Contractor shall not delay, hinder or interfere with the progress of the overall work on the Project and shall proceed with performing the disputed scope of work immediately upon delivery of a written directive from Owner. Such written directive shall not constitute an agreement by Owner that Contractor is entitled to receive extra compensation or time in performing the disputed work. The written directive shall be considered delivered on the date and time that said written directive is transmitted via facsimile to Contractor's home office or field office or hand delivered to Contractor's field office or site superintendent.

ARTICLE 18 LIENS

18.1. In the event that Contractor's subcontractors and suppliers or any persons acting through and under it files a mechanic's lien for Work previously paid by Owner, Contractor shall promptly take all action necessary to remove or satisfy the lien immediately upon receiving notice from Owner. The Contractor shall reimburse and indemnify Owner against any expenses, damages and losses (including attorneys' fees) resulting from or incurred in attempting to discharge or satisfy such lien or claim. If any payment then due to the Contractor by Owner is not sufficient to reimburse and indemnify Owner, the Contractor agrees to pay the amount of said difference to Owner upon demand.

ARTICLE 19 TIME

19.1. Prior to commencement of Work, Contractor shall submit to Owner a project schedule for the Work (the "Project Schedule"). The Project Schedule shall not exceed the time limits set forth in the Contract Documents and shall be updated at appropriate intervals as required by the conditions of the Work.

19.2. Contractor shall perform the Work in a prompt, efficient, safe and diligent manner. To ensure timely completion, unless otherwise directed by Owner in writing, Contractor shall take all necessary action including, without limitation, increasing the number of personnel and labor on the Project and implementing overtime and double shifts. In that event, Contractor shall not be entitled to any adjustment in the Contract Sum or Contract Time.

19.3. Should the Contractor fail to comply with the Project Schedule or, in the Owner's opinion, otherwise fail, refuse, or neglect to supply a sufficient amount of labor or equipment in the prosecution of the Work, Owner, without prejudice to any other remedies or rights specified in the Contract Documents or under the law, shall have the right to direct Contractor, at its own

expense, to furnish such additional labor and/or equipment as may, in the Owner's opinion, be required to comply with the Project Schedule or otherwise diligently prosecute the work.

19.4. If Contractor is delayed at any time in the commencement or progress of the Work by an act or neglect of Owner, "force majeure" event or unusual adverse weather days, Contract may be entitled to a reasonable extension commensurate with the delay. The term "force majeure" as used herein shall mean acts of God, acts of public enemy, insurrections, riots, strikes, lockouts, labor disputes, fires, explosions, floods, breakdowns or damage to plants, equipment or facilities, embargoes, orders, or acts of civil or military authority, or other causes of a similar nature which are beyond the reasonable control of Contractor. The term "adverse weather day" shall mean a day on which Work was scheduled to be performed but the weather conditions were such that meaningful Work was not feasible and that as a result, the completion of Work was delayed. The term "unusual adverse weather days" shall mean each adverse weather day beyond the number of adverse weather days that the Contractor generally encounters during a month. In support of Contractor's requests for extension of time due to unusual adverse weather conditions, Contractor shall supply Owner with U.S. Weather Bureau Climatological Reports for the months involved.

19.5. The Contractor's request for an extension of time must set forth in detail the source and nature of each alleged cause of delay in the completion of the work, the date upon which each such cause of delay began, ended, or will end, and the number of days' delay attributable to each of such causes. The granting of an application for an extension of time for causes of delay other than those herein referred to shall be entirely within the discretion of the Owner.

19.6. The Contractor shall not be entitled to receive a separate extension of time for each one of several causes of delay operating concurrently, but, if at all, only for the actual period of delay in completion of the work, regardless of the number of causes contributing to produce such delay. If one of several causes of delay operating concurrently results from any act, fault, or omission of the Contractor or of its subcontractor, if any, and would of itself (regardless of the concurrent causes) have delayed the work, no extension of time will be allowed for the period of delay resulting from such act, fault or omission.

19.7. Contractor acknowledges and agrees that its sole remedy for delay caused by a force majeure event or unusual adverse weather is an extension of time and shall not have or assert any claim for monetary damages or prosecute any suit, action, cause of action, claim or demand against the Owner for such damages arising from such delay.

ARTICLE 20 TERMINATION, CANCELLATION AND SUSPENSION

20.1. Owner shall have the right to terminate this Contract for cause if: (1) Contractor fails to prosecute the Work diligently, in accordance with the Project Schedule or to make such progress in the Work as Owner reasonably believes is necessary to complete the Work within the time required by this Contract; or (2) Contractor fails to perform the Work in accordance with the Contract Documents or (3) Contractor fails to perform the Work in a good and workmanlike manner, or fails to correct defects in the Work promptly upon notice by Owner; or (4) Owner reasonably determines that Contractor has abandoned the Work, or has failed to pay any subcontractors, suppliers, or laborers when payment is due as specified in the Contract; or (5) Contractor becomes insolvent, makes a general assignment for the benefit of creditors, files a voluntary petition under any chapter of the Bankruptcy Code, has an involuntary petition filed

against it, has a receiver appointed, or files for dissolution or otherwise is dissolved; or (6) Contractor fails to pay its debts in a timely manner, or (7) Owner has reasonably determined that Contractor does not have the financial ability to carry out its obligations under this Contract and Contractor fails to give Owner prompt and reasonable assurances of its ability to perform; (8) Contractor repeatedly violates any applicable laws, codes, regulations or other standards applied by any governmental entity having jurisdiction over the Work; or (9) Contractor is otherwise in material breach of any provision of the Contract Documents.

20.2. Except as provided in this Section, Owner will provide Contractor with written notice of its intent to terminate this Contract for cause pursuant to Section 20.1, five (5) days before actually putting the termination into effect. If Contractor has begun its curative action and has made progress satisfactory to Owner, in its sole opinion and discretion, within the five (5) day period, Owner may so notify Contractor and the termination will not take effect. Otherwise, the termination shall take effect after five (5) days without further notice or opportunity to cure. If Owner terminates this Contract for cause, no further payment shall be due to Contractor and Owner will have the right to take over the Work, to take and use all supplies paid by Owner in connection with the Work, and to finish the Work by whatever method it deems expedient, including accepting assignment of any or all outstanding purchase orders or subcontracts. Owner may terminate this Contract without prior notice or an opportunity for Contractor to cure the default, if the default involves risk of personal injury or property damage.

20.3. Owner may, upon five (5) days' written notice to Contractor, terminate this Contract for its convenience in whole or in part at any time without cause for such termination. After issuance of said written notice, Contractor shall terminate the Work as instructed by Owner. If Owner terminates this Contract for convenience, Contractor shall receive, as its sole and exclusive remedy, payment for the Work performed up to and including the date of the termination and all reasonable documented wind-up costs, including, without limitation, the costs of canceling open purchase orders and demobilizing from the project site. Contractor shall use reasonable efforts to mitigate wind-up costs. Contractor shall not be entitled to recover any amounts for unabsorbed overhead, anticipated profits on the unperformed portion of the Work, or lost opportunity. After receiving a notice of termination for convenience, Contractor shall place no further orders for material or equipment, issue no further subcontracts, and shall stop Work on the date given in the notice. Contractor shall consult with Owner regarding the disposition of existing orders and subcontracts, and use its best efforts to terminate them on terms favorable to Owner. Contractor shall likewise consult with Owner to decide what actions should be taken to protect Work in place and equipment or materials that have been delivered and not yet installed, and to render the project site safe.

20.4. Owner reserves the right to suspend the Work of Contractor at any time in Owner's sole discretion. Owner shall give Contractor written notice of such suspension of Work. Owner agrees to pay Contractor for Work performed and obligations incurred up to and including the suspension date and for costs that Contractor directly incurs in suspending the Work, provided that Owner has authorized such payments in advance. In no event shall Owner be liable for any costs, claims, damages or liabilities whatsoever of Contractor or its subcontractors including, without limitation, consequential, special or indirect damages, loss of anticipated profit or reimbursement, relating to unperformed Work.

ARTICLE 21 DISPUTE RESOLUTION

21.1. If Contractor disagrees with any action or decision by Owner, or any claim or dispute otherwise arises involving this Contract, Contractor shall proceed with the Work, without interruption or delay, shall follow Owner's directions, and may bring a claim as provided in this Section. Contractor's failure to proceed with the Work as directed during the pendency of any claim or dispute shall constitute a material breach of this Contract.

21.2. The parties agree that any dispute that cannot be resolved amicably shall first be submitted to mediation before a mutually acceptable mediator, prior to either party's resorting to legal action. If the mediation has not concluded within 60 days of the initial demand for mediation, either party may then pursue litigation in accordance with this Section, without further recourse to mediation. If the parties are unable to agree upon a mediator within thirty (30) days after either notifies the other in writing of its intent to mediate, the mediator shall be appointed by the American Arbitration Association located in closest proximity to the project. Each party will bear its out-of-pocket costs of the mediation; all other costs of the mediation, e.g., mediator fees and related charges, will be shared equally. If the parties are unable to agree upon a site, the mediation will be held at a location selected by the mediator.

21.3. BOTH PARTIES EXPRESSLY WAIVE THE RIGHT TO JURY TRIAL IN ANY LEGAL PROCEEDING IN ANY WAY ARISING OUT OF OR RELATED TO THIS CONTRACT.

END OF GENERAL TERMS AND CONDITIONS

EXHIBIT 2 SUPPLEMENTAL GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

1. The OWNER is Ambler Crossings Development Partners, LP, 201 South Maple Avenue, Ambler, PA 19002.
2. The ENGINEER is Gary R. Brown, P.E., RT Environmental Services, Inc., 215 W. Church Rd., King of Prussia, Pennsylvania 19406; (610) 265-1510 Ext. 34; Fax (610) 265-0687.
3. The GEOTECHNICAL CONSULTANT is Earth Engineering, Inc., 115 West Germantown Pike, Suite 200, East Norriton, PA 19401.
3. "Technical Data" which consists of existing information concerning this site is listed in the Attachments included herein.
4. "Hazardous environmental conditions" known to be present at the site include:
 - The Property is described as an inactive waste disposal site regulated by National Emissions Standard for Hazardous Air Pollutants (NESHAP) 40 CFR 61.151.
 - Asbestos containing soil, historic fill impacted with arsenic.

CONTRACTOR shall execute his work in such a manner so as not to release asbestos, arsenic, into environmental media at the project site. Such requirement is a specific hazardous environmental condition known to exist at the work site, which is identified in these CONTRACT documents and included within the scope of work for the project.

5. Insurance coverage shall be as indicated below. Insurance certificates evidencing such coverage, and naming the OWNER and ENGINEER (see below) and the following additional parties:

List of Certificate Holders (Mortgagee/Additional Named Insureds/Lender's Loss Payees)

1. Commonwealth Financing Authority
Commonwealth Keystone Building
400 North Street
Fourth Floor – M East
Harrisburg, PA 17120
2. Pennsylvania Department of Community and Economic Development
Commonwealth Keystone Building
400 North Street; 4th Floor
Harrisburg, PA 17120-0225
3. Borough of Ambler
122 East Butler Avenue
Ambler, PA 19002-4476
4. Ambler BH Development Partners, LP

201 South Maple Avenue
Ambler, PA 19002

5. Maple Ave Park Partners, L.L.P.
110 Spruce Lane
Ambler, PA 19002
6. Redevelopment Authority of the County of Montgomery
104 West Main Street
Suite 2
Norristown, PA 19401
7. Bureau of Revenue, Cash Flow and Debt
Office of the Budget
Commonwealth of Pennsylvania
7th Floor Bell Tower
303 Walnut Street
Harrisburg, PA 17101
8. Maple Way Partners, LP
224 South Maple Street
Ambler, PA 19002

as additional insured parties, each party shall be provided within five business days of the "Notice of Award" with Insurance Certificates identifying the following minimum coverages:

General Liability	\$5,000,000
Pollution Liability	\$3,000,000
Auto Liability	\$1,000,000
Workmen's' Compensation	Statutory

CONTRACTOR shall also name Ambler Crossings Development Partners, LP (OWNER) and RT Environmental Services, Inc., (RT) (ENGINEER) as additional insured on all policies.

6. CONTRACTOR is advised that the project makes use of Commonwealth of Pennsylvania, Industrial Site Reuse Program (ISRP) funds and Redevelopment Assistance Capital Program (RACP) funds. ISRP funds are administered by the Department of Community Economic Development (DCED) and the Commonwealth Financial Authority. RACP funds are administered by the Redevelopment Authority of the County of Montgomery (RACM) and the Office of the Budget (OB) for the Commonwealth of Pennsylvania.
7. Ambler Crossings Development Partners, LP reserves the right to approve or reject contracts between the project's sponsor and CONTRACTOR, for work that will be paid for with Industrial Site Reuse Program funds (ISRP) and Redevelopment Assistance Capital Program (RACP) funds. CONTRACTOR shall immediately inform RT Environmental Services of any previous disapproval of CONTRACTOR or any SUBCONTRACTOR on any project involving ISRP or RACP funds. ISRP and RACP are included in **Attachment 13**.

8. CONTRACTOR cannot make or authorize any substantial change in an approved project without first obtaining written approval.
9. CONTRACTOR shall maintain full and accurate records with respect to the project. In addition to the ENGINEER and OWNER, the Department of Community and Economic Development, and the Department of Environmental Protection, shall have free access to such records and to inspect all project work and other relative data in records. CONTRACTOR must furnish upon request of RT Environmental Services all data, reports, contracts, documents, and other information relevant to the project, as may be requested.
10. Pennsylvania Prevailing Wage Act (43 P.S. 165-4) is applicable to this project, and CONTRACTOR shall pay prevailing wage rates to all those employed under this purchase order.
11. The Nondiscrimination Clause, provided in **Attachment 11**, forms part of these Specifications.
12. Performance and Payment Bonding as per Article 5.01 of the Standard General Conditions of the Construction Contract may be required, at the OWNER's option. CONTRACTOR shall, within 10 days of Notice of Award, furnish Bond if so requested by the OWNER. Bonding shall be bid as an optional item on the BID FORM. Pricing for the Performance and Payment Bond must be provided on the BID FORM.
13. Liquidated Damages shall be in the amount of \$2,000 per day if the Work is Not Substantially completed within 180 days, or such other period of time as approved by the OWNER and the ENGINEER, subject to extension due to events of force majeure.
14. Payments shall be made promptly after the OWNER'S receipt of disbursements from the Commonwealth Financing Authority, the Office of the Budget and the Redevelopment Authority of the County of Montgomery. However, CONTRACTOR shall assume payments under the CONTRACT shall be made by the OWNER within 90 days following OWNER'S receipt of an acceptable invoice from CONTRACTOR.

DIVISION 1 - GENERAL REQUIREMENTS

SECTION 01010

SUMMARY OF WORK

PART I. GENERAL

1.1 SECTION INCLUDES

- A. Contract Description.
- B. Work by Contractor.
- C. Owner supplied Products.
- D. Contractor use of site and premises.

2.1 CONTRACT DESCRIPTION

- A. Contract Type: Lump Sum

3.1 WORK BY CONTRACTOR

- A. Work under this contract shall include:
 - 1. Securing the site.
 - 2. Installation of the Northern Parking Lot (see **Attachment 14**). The completion of this portion of the work will require the existing parking lot to be vacated and be unavailable for parking by the tenants of the Ambler Boiler House. As a result, such work associated with the installation of the Northern Parking Lot shall be required to be completed within fourteen consecutive days (two week period) or such other timeframe as approved by the OWNER and the ENGINEER. The work involves the complete installation of the parking lot including all required storm water systems and any other utility work.
 - 3. All Land Development site work (see **Attachment 5**)
 - 4. Installation of "Clean" utility corridors and all subsurface utilities.
 - 5. Removal and proper disposal of any excess site soils by volume, whether or not containing asbestos, arsenic, and/or magnesia as documented herein. Prior to the removal of ANY soil from the site, CONTRACTOR shall be responsible to demonstrate to the OWNER and the ENGINEER that the material was unable to be managed and or otherwise permanently placed elsewhere on the site as part of the overall soil management program for the project. Removal of any soil from the site should be regarded as a last option for soil management in connection with this project.
 - 6. Installation of building foundations and/or basements, the required helical piers,

the pool foundation, the pool and the associated patio areas as documented herein (see **Attachment 6**)

7. Installation of the concrete first floor in Buildings 1 and 2 as described on the drawings and the installation of the slab on grade for Building 3.
8. Installation of the CMU elevator and stair towers as described on the drawings.
9. Installation of cap throughout the site; including asphalt, concrete and/or soil as documented herein (see **Attachments 3, 5, 6**).

B. Special considerations of the project include:

1. Asbestos containing material, some of which is >50% asbestos, is present in site soils (on or as a whole) at the surface and at depth as described in the PA DEP Cleanup Plan. Property is described as an inactive waste disposal site regulated by National Emissions Standard for Hazardous Air Pollutants (NESHAP) 40 CFR 61.151. The CONTRACTOR is responsible to submit the 45-day notice as required to be submitted documenting the activities to be completed which disturb site soils containing asbestos and provide a schedule of work. This notice shall be submitted a minimum of 45 days prior to site mobilization. If the work will begin on a date other than the one contained in the original notice, notice of the new start date must be provided at least 10 working days before work begins and in no event shall work begin earlier than the date specified in the original notification.
2. All work under this contract must meet the requirements of the Nondiscrimination Clause provided as Attachment 11. In addition, the Pennsylvania Prevailing Wage Act (43 P.S. 165-4) is applicable to this project, and the CONTRACTOR shall pay CURRENT prevailing wage rates for all those employed under this contract. CONTRACTOR shall further agree to submit all required certified payroll information to the Commonwealth of Pennsylvania and to the County of Montgomery's Department of Labor on a weekly basis.

4.1 OWNER SUPPLIED PRODUCTS

Not used.

5.1 CONTRACTOR USE OF SITE AND PREMISES

- A. Limit use of site and premises to allow:
 1. CONTRACTOR personnel.
 2. OWNER and their Designates.
- B. The detailed scope of work is as follows:

SCOPE OF WORK AND GENERAL COORDINATION REQUIREMENTS

Work shall be completed by PA ASBESTOS LICENSED CONTRACTOR and 40 HOUR HAZWOPER TRAINED WORKERS. The CONTRACTOR may request approval for a

“downgrade” of health and safety requirements once all ACMs are covered in particular work areas.

i) SITE PREPARATION

Site Preparation activities shall include the following:

- Securing of the Site;
- Establishing work zones;
- Setup of air monitoring stations;
- Removal of debris piles and former foundation structures where applicable; and
- Site clearing and grubbing.

Prior to performing any work on Site, the perimeter shall be secured by installation of temporary fencing. No trespassing and asbestos work signs, as required by Environmental Protection Agency (EPA) regulations, shall be posted on the perimeter fence line.

Initially the entire Site shall be considered a work area which contains asbestos and/or asbestos impacted soils and therefore shall be designated as an exclusion zone. Definitions of the various work zones are described in more detail in **Attachment 4**, Section 1.6. The contamination reduction zone shall be established at the exit/entrance to the Site with the clean/support zones outside the fenced perimeter of the Site. The contamination reduction zone shall include facilities for decontamination of both personnel and equipment. The support zone shall initially be located outside of the perimeter fencing at the main entrance to the Site. The main entrance to the Site is shown on the Land Development Plans included as **Appendix 5**.

A wind sock shall be installed by the CONTRACTOR in a location that is visible from as much of the Site as practical. The wind sock shall be used to determine upwind and downwind locations for the daily air monitoring program. Air monitoring stations shall also be constructed around the perimeter of the Site. Perimeter air monitoring shall be conducted by the ENGINEER during the Site development activities in which asbestos and impacted soils are handled or relocated on site to monitor Site perimeter air quality. The air monitoring program is discussed in detail in **Attachment 4**. The CONTRACTOR is responsible for personnel monitoring in accordance with the air monitoring program.

Potable water shall be provided by the CONTRACTOR to the contamination reduction zone for the decontamination of personnel and equipment as well as dust control in the exclusion zone during the performance of Site development activities. The nearest hydrant shall be used to supply the potable water required during Site development activities. If an emergency supply of water is needed for dust suppression, then a water tanker shall be brought to the Site by the CONTRACTOR to supply potable water.

Grubbing of the vegetation shall be performed by the CONTRACTOR as required for the performance of Site redevelopment activities. Brush and trees (if any) shall be cut down, chipped, and disposed off-Site. Large stumps shall be removed and all soil on these stumps shall be removed using a fire hose to wash off the soil. Wash water waste shall be handled as described in Section 5.1B(vii).

The following is the sequence of which work to be conducted on the Site:

1. Site preparation activities to include, securing site perimeter boundaries, establishing work zones and air monitoring stations.
2. Installation of the Northern Parking Lot (see **Attachment 14**). The completion of this portion of the work will require the existing parking lot to be vacated and be unavailable for parking by the tenants of the Ambler Boiler House. As a result, such work associated with the installation of the Northern Parking Lot shall be required to be completed within fourteen consecutive days (two week period) or such other timeframe as approved by the OWNER and the ENGINEER. The work involves the complete installation of the parking lot including all required storm water systems and any other utility work.
3. Site grading shall be conducted prior to the installation of the foundations for the buildings and asphalt paving as per Section 5.1 B(i). The soil with the highest percentage of asbestos (i.e. the courtyard area) and magnesia content, see Figures 4 – 6 of the PA DEP Cleanup Plan in **Attachment 3**, shall be consolidated and placed as backfill against the new basement foundations adjacent to the courtyard area as designed in the Plans. Site grading activities should be executed to maximize the amount of asbestos and magnesia containing materials that are retained on-site as fill

and to minimize the amount of asbestos and magnesia containing materials that are required to be transported off-site. Based on calculations relating to cut and fill, this will be a net fill project so all asbestos and magnesia containing materials should be able to be managed on site.

4. Demolition of existing building foundations as per Section 5.1B(ii). Note that the CONTRACTOR shall be responsible for providing adequate dust control (water suppression, misting system and/or equivalent) during all crushing activities.
5. Installation of the subsurface utility lines shall be required to serve the final residential development of the Site. These utility lines consist of, but not limited to, sanitary sewer lines, storm water lines, municipal water service lines, communication lines, and natural gas lines. In order to eliminate the risk of exposure to asbestos and impacted soils at the Site during the initial utility installation and to facilitate any future utility line maintenance, asbestos-free utility corridors shall be established. Section 5.1B(v) provides the required details for this work.
6. Construction of new building foundations is described in Section 5.1B (iv).
7. Construction of concrete first floor for Buildings 1 and 2, slab on grade concrete and associated foundations for Building 3 and the installation of the CMU elevator and stair towers for Buildings 1 and 2.
8. Placement of clean fill, minimum two (2) foot, concrete and/or asphalt as appropriate, to cap soil surfaces. All clean fill imported to the Site shall adhere to the PADEP Management of Fill Policy (Document No. 258-2182-773). Sampling of clean fill source may be required by the CONTRACTOR as detailed in Section 5.1B(vi). Regulated fill or waste materials shall not be approved for use as cap materials.

(ii) SITE GRADING

The presence of asbestos present in and mixed in the soil at the Site requires that the entire Site be classified as an exclusion zone. The effort to perform all Site redevelopment activities under the requirements of an asbestos exclusion zone increases the level of effort required, decreases productivity, and increases the risk of potential worker exposure to airborne

asbestos. In order to minimize the horizontal extent of the exclusion zone, pre-grading of the Site shall be performed. Pre-grading shall involve excavation of soils from cut areas and relocation of the soil to the fill areas (i.e. adjacent to the new building basements and the storm water detention basin area). A copy of the Land Development Plans is included as **Appendix 5**.

Grading of the Site shall initially be performed adjacent to the paved roadways. Unpaved areas of the Site at which final grade is to be lower than existing grade (Cut Areas) excavated to the anticipated sub-grade elevation based on the final proposed surface cover over the area. The excavated soil shall be placed in areas in which the final grade is to be higher than the existing grade (Fill Areas) or as fill adjacent to the new building basements and the storm water detention basin area. The excavation and handling of asbestos and magnesia impacted soils shall be performed in accordance with protocols described in Section 5.1B (ix). During the course of construction, the GEOTECHNICAL CONSULTANT may provide additional direction to the CONTRACTOR regarding the use of certain admixtures (Portland cement or hydrated lime) to the magnesia containing soil to decrease its moisture content as required to make it more suitable for an on-site fill material.

After the excavation of the soil to the pre-grade elevation is completed, all residual soil shall be cleaned from the adjacent or nearby paved surfaces by rinsing the roadways with potable water using a spray nozzle. Mechanical removal of the soil shall be used if required to effectively remove all soil and other non-asphalt materials from the paved surfaces. Water used to clean the paved surfaces may be allowed to infiltrate to surface soils.

1. Additionally, the Site grading activities may include focused soil removal work for magnesia and impacted soils to facilitate the development activities. Any excavated materials planned for offsite disposal at permitted facilities shall be managed in accordance with all federal, state, and local requirements. However, it is anticipated that all impacted soils will be managed on site to the extent possible.
2. Prior to the removal of ANY soil from the site, CONTRACTOR shall be responsible to demonstrate to the OWNER and the ENGINEER that the material was unable to be managed and or otherwise permanently placed elsewhere on the site as part of the overall soil management program for the project. Removal of any soil from the site should be regarded as a last option for soil management in connection with this project.

(iii) DEMOLISHED BUILDING FOUNDATIONS

Demolition debris from the remaining walls and floor slabs of the former buildings, in addition to excavated asbestos and impacted soils, shall be used as fill in the basements of designated buildings on Site, under proposed asphalt pavement areas on Site, adjacent to the new building foundations and adjacent to the storm water detention area. In order to minimize the void space, imported clean fill shall be mixed with concrete/stone debris as necessary. Testing of these materials to be crushed has been completed and results showed this material not to contain asbestos. Note that the CONTRACTOR shall be responsible for providing adequate dust control (water suppression, misting system and/or equivalent) during all crushing activities. Nonetheless, air monitoring, in accordance with **Attachment 4**, shall be performed by the ENGINEER to monitor dust generation and possible asbestos fiber release during the handling of the demolished building debris. If additional fill is required to achieve pre-grade elevations, the concrete and stone debris shall be covered with Clean Site soil obtained from the cut areas. The fill placed in the basements and adjacent to the new basement walls shall ultimately be capped in accordance with the approved PA DEP Cleanup Plan in **Attachment 3**.

(iv) SUBSURFACE UTILITY CORRIDORS

The installation of subsurface utility lines shall be required to serve the final residential development of the Site. These utility lines consist of, but not limited to, sanitary sewer lines, stormwater lines, municipal water service lines, communication lines and natural gas lines. The proposed locations of utility lines are included in the Land Development Plans, shown in **Appendix 5**.

In order to preclude the risk of exposure to asbestos and impacted soils at the Site during the initial utility installation and any future utility line maintenance, asbestos-free utility corridors shall be established. Any existing Site soils within the alignment of the proposed utility corridors shall be excavated to at least two (2) feet below the anticipated depth of the deepest utility line. The width of the excavation shall be at least two (2) feet horizontally on each side beyond the anticipated width required within which all utility lines will be laid in each corridor. Excavated soils shall be consolidated in designated fill areas of the Site and/or stockpiled, loaded, transported and properly disposed of at a permitted facility using procedures described in Section 5.1B(ix). The walls and bottom of the utility excavation shall then be lined with a

geotextile filter fabric (MIRAFI S1000 non-woven, needle-punched geotextile or equivalent) and the excavation shall be filled with imported clean fill and/or cap materials.

In areas where the utility corridors are routed within the basements of the former buildings, the perimeter of the utility corridor shall be backfilled with approved demolition debris or soil removed from the cut areas of the Site. The walls and bottom of the utility corridor shall then be lined with a geotextile filter fabric (MIRAFI S1000 non-woven, needle-punched geotextile or equivalent) and the utility corridor shall be backfilled with clean imported backfill to grade elevations.

(v) NEW BUILDING FOUNDATIONS

The new building foundations may be supported by pilings. In order to preclude the risk of exposure to asbestos and impacted soils at the Site, when installing the foundations and pilings (if applicable), excavation of the asbestos and impacted soils shall be performed to at least six (6) inches below the bottom elevation of the foundation structures and three (3) feet horizontally beyond the footprint of the buildings. Excavated soils shall be consolidated at designated fill areas of the Site and/or stockpiled, loaded, transported and properly disposed of at a permitted facility using procedures described in Section 5.1B(ix).). Prior to the removal of ANY soil from the site, CONTRACTOR shall be responsible to demonstrate to the OWNER and the ENGINEER that the material was unable to be managed and or otherwise permanently placed elsewhere on the site as part of the overall soil management program for the project. Removal of any soil from the site should be regarded as a last option for soil management in connection with this project.

After removal of the asbestos and impacted soils to the desired excavation limits, the bottom of the excavation shall be backfilled with 6-inches of imported stone. The side walls of the foundation excavation shall be lined with polyethylene sheeting or geotextile fabric (MIRAFI S1000 non-woven, needle-punched geotextile or equivalent) to prevent exposure of the soils to the air and to construction workers. The foundation work may then be performed using standard construction health and safety protocols, so long as sheeting/fabric remains undamaged.

In areas where the footprints of the proposed new buildings are within the footprint of the basements of the demolished buildings, the existing basement shall be backfilled with approved

demolition debris or soil removed from cut areas of the Site to the required grade elevations. The basement shall then be backfilled with 6-inches of imported stone. The side walls of the foundation excavation shall be lined with polyethylene sheeting or geotextile fabric (MIRAFI S1000 non-woven, needle-punched geotextile or equivalent) to prevent exposure of the soil to air. The foundation work may then be performed using standard construction health and safety protocols, so long as sheeting/fabric remains undamaged.

In order to maintain the individual areas as non-asbestos work areas, it is imperative not to expose any soil which potentially contains asbestos. Therefore, pilings (if applicable) shall be driven and/or vibrated into place so that asbestos and impacted soils are not brought up to the clean stone surface. If it is necessary to excavate or auger a pilot hole in any manner, the work zone shall be classified as an exclusion zone in accordance with **Attachment 4**, Section 1.6.

Basement Plans, Building Plans and Pool Plans are included as **Attachment 6**.

(vi) CLEAN FILL & CAPPING

All clean fill imported to the Site shall adhere to the PADEP Management of Fill Policy (Document No. 258-2182-773). Samples, if necessary, shall be collected and analyzed by the CONTRACTOR for VOCs, SVOCs, Priority Pollutant Metals, PCBs, pesticides/herbicides, and asbestos for each 3,000 cubic yards of imported clean fill in accordance with the policy. Regulated fill and waste materials shall not be placed as capping material.

Additional capping measures to be installed include asphalt roads, parking areas, concrete sidewalks, and foundations, See Section 5.1B(x). Clean Fill soil cap construction shall be a minimum of two (2) feet in thickness. See **Attachments, 3, 5, 6** for location and type of caps to be installed.

(vii) STORMWATER CONTROL

Water generated at the Site which must be controlled to minimize the release of asbestos fibers includes water used for dust suppression and storm water runoff from areas of the Site where asbestos and impacted soils are excavated and/or exposed. The application of water to minimize the generation of dust shall be controlled to minimize the generation of runoff to as

reasonable degree as is possible while still effectively minimizing the generation of dust and/or fiber releases. Wherever possible, water used for dust suppression and water from precipitation events shall be allowed to infiltrate into the existing ground. However, large rainfall events or dust suppression under certain conditions could produce surface runoff. Runoff control features such as temporary diversion ditches and collection sumps or ponds may be utilized to control surface water runoff during Site redevelopment activities. Proposed water and sediment controls are shown in the Land Development Plans, **Appendix 5**.

A Stormwater and Erosion Control Plan (SWECP) has been developed in accordance with Federal, State, and local regulations. Any potentially asbestos impacted sediment removed from the E&S controls as part of operations & maintenance during construction shall be reused on site to the degree feasible or shall otherwise be properly disposed of off-site at a permitted facility. As necessary, any ponded water shall be discharged through standard dirt bag filtration devices to prevent sediment from leaving the Site. Additionally, perimeter E & S controls shall be maintained throughout the project and shall be properly disposed of off-site at a permitted facility prior to the completion of the project.

(viii) DUST CONTROL

CONTRACTOR shall be responsible for providing adequate method of dust control (water suppression, misting system and/or equivalent) during activities which may disturb asbestos material present on the site as indicated throughout this Specification, including but not limited to excavation work, demolition work, all crushing activities etc. CONTRACTOR shall submit, for the ENGINEER's approval, the means and methods for controlling dust prior to implementation of any work which will disturb asbestos containing materials.

Dust suppression during idle time may be achieved by one or more of the following methods:

- Compacting of soil areas that have been disturbed prior to the end of the work day;
- Covering the disturbed areas with geotextile fabric, the edges of which shall be weighted down to prevent uplifting and subsequent potential wind and water dispersion;
- Misting of disturbed areas prior to the end of the workday; and/or,
- Misting of disturbed areas, as necessary, 24 hours per day. High pressure spray systems (misting systems) shall be used by the CONTRACTOR to minimize the potential for dust generation. The high pressure spray system to be utilized shall be a NESCO Dust Boy or equivalent. The high pressure spray uses a powerful mist to

suppress dust while conserving water (preventing over wetting of materials). The high pressure spray shall operate at 200 psi and be capable of spraying up to 20 gpm of water (if needed). The water source for the high pressure spray system shall be public water provided at a nearby hydrant. This shall assure an adequate supply of water during all construction activities to minimize the potential for dust generation. High pressure spray systems shall be placed in close proximity to the work areas, on the up-wind side of the work areas. The location of the high pressure spray system shall be adjusted during the construction activities such that disturbed materials shall be contacted by the spray.

Additional and/or alternative methods of dust control may be proposed by the CONTRACTOR and shall be evaluated by the ENGINEER and implemented as appropriate.

(ix) ASBESTOS AND IMPACTED SOILS RELOCATION

The execution of the overall work scope is intended to maximize the use of the existing asbestos and magnesia impacted soils as on-site fill material and minimize and potentially eliminate the requirement for any off-site transportation of this material. Prior to the removal of ANY soil from the site, CONTRACTOR shall be responsible to demonstrate to the OWNER and the ENGINEER that the material was unable to be managed and or otherwise permanently placed elsewhere on the site as part of the overall soil management program for the project. Removal of any soil from the site should be regarded as a last option for soil management in connection with this project.

Asbestos and impacted soils shall be deposited in areas designated as cut areas during excavation of utility corridors and during excavation for the construction of foundations for proposed buildings. Since much of the subsurface material at the Site contains significant percentages of asbestos, appropriate health and safety procedures shall be followed in the areas at which ground intrusive activities are being performed. In order to limit potential worker exposure to asbestos fibers, an exclusion zone shall be established around the active area of excavation of asbestos and impacted soils as described in **Attachment 4**, Section 1.6. The limits of the exclusion zone shall be established by the Site Health and Safety Officer (HSO).

Soil may be excavated using standard soil excavation equipment (i.e. backhoe, front end loader, track hoe). Appropriate care shall be exercised during excavation activities so as to minimize

soil agitation to the greatest extent practicable. Buckets on excavation equipment shall not be overfilled such that soil is falling from the bucket when the bucket is swinging to the location of placement or loading. Whether placing soil in a haulage vehicle, directly into the designated fill area, or on the ground surface adjacent to the excavation, the soil shall be carefully released from the excavation equipment. The length of drop shall be as short as possible to minimize agitation of the soil and the potential release of dust and/or asbestos fibers.

Misting systems shall be employed to further reduce potential dust emissions during the excavation activities, as appropriate.

The development of the Site shall require loading and transportation of asbestos and impacted soils from the cut areas to the fill areas. Transportation shall be performed in a manner that minimizes agitation of the soil and the generation of dust and potential release of asbestos fibers. If dump trucks are used, the trucks shall be equipped with suitable tarps that shall be placed over the beds of the haulage units prior to truck movement to transport the asbestos and impacted soils. If equipment such as a front end loader and/or backhoe is used to transport asbestos and impacted soils, the soil shall be completely contained within the bucket and the bucket shall not be overfilled such that soil can spill out during transport. Speed of onsite haulage vehicles shall be controlled to avoid bounce on construction haul roads causing release of soil and dust from the transportation vehicles.

When placing material in the consolidation areas, the material shall be carefully placed. The method of placement shall minimize the length of drop and the agitation of soil so as to minimize the potential for the generation of dust and release of asbestos fibers.

During all activities associated with the relocation of asbestos and impacted soils, engineering controls shall be implemented to minimize the generation of visible emissions. The preferred and primary engineering control shall be the application of water/mist to all excavated soil. All waste areas to be disturbed (i.e., excavated, graded, etc.) shall be thoroughly pre-wetted with water/mist prior to disturbance. Water/mist application rates shall be monitored to avoid excessive wetting of the material being disturbed. As required during material handling operations, water misting systems shall be utilized in the area of work to assist in control of visible emissions. Misting systems shall be capable of producing and applying a fine airborne aqueous mist evenly and consistently over the area of material handling without excessive

wetting of the materials involved. If wind or other conditions render misting systems or other emission suppression technique ineffective, then work shall cease until selected emission control technique(s) are capable of effectively controlling visible emissions and/or alternate emissions controls are identified.

Other emission control methods include:

- Minimizing the handling of impacted material to the greatest degree possible;
- Roads accessed for construction may be developed as "clean" areas and maintained as "clean" (i.e., haul roads) with emission control measures such as applying water to the roadways implemented;
- A slow, controlled rate of excavation shall be maintained; and;
- The speed limit for all vehicles on the Site shall posted at 10 mph.

If conditions occur for which the above emission control techniques are not effective, additional engineering controls shall be identified, evaluated, and implemented as appropriate.

(x) ENGINEERING CONTROLS

The fill areas shall be backfilled with asbestos and/or impacted soils to final pre-grade elevations. Cut areas shall be excavated to final pre-grade elevations. The final cover shall be dependent on the final use of the area as designated in the final grading plan (see **Attachment 5**). The final cover shall consist of either an impervious layer such as concrete or asphalt in building roads and sidewalks, parking areas, or at least a two (2) feet of clean imported soil with a vegetative cover established in open green spaces. Planting areas for large trees shall have a minimum of four (4) feet of clean imported soil. The cap shall be constructed to preclude direct contact with the contaminated soil and potential inhalation of asbestos fibers by the future users of the Site.

During placement of imported clean fill material, care shall be exercised so that the imported material is not mixed with Site asbestos and impacted soils or cross-contaminated by trucks or equipment previously used to handle Site asbestos and impacted soils. Prior to use for the placement of imported fill material, all equipment which had been used to relocate or in any way handle asbestos and impacted soils are at the Site shall be decontaminated at the equipment

decontamination facility. Cleaning of equipment shall be approved by the HSO prior to returning equipment to be used for the placement of clean imported fill material.

END OF SECTION

SECTION 01019

CONTRACT CONSIDERATIONS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Responsibilities
- B. Schedule of values.
- C. Application for payment.
- D. Change procedures.
- E. Defect assessment.

1.2 RELATED SECTIONS

- A. Section 01600 - Material and Equipment

1.3 RESPONSIBILITIES

A. OWNER Responsibilities:

1. Consult with CONTRACTOR for consideration and selection of Products and suppliers.
2. Select Products and transmit decision to CONTRACTOR.
3. Prepare Change Orders as required.

B. CONTRACTOR Responsibilities:

1. Assist OWNER in selection of Products and suppliers.
2. Obtain proposals from suppliers and installers and offer recommendations.
3. On notification of selection by OWNER, execute purchase agreement with designated supplier.
4. Arrange for and process shop drawings, product data, and samples. Arrange for delivery.
5. Promptly inspect Products upon delivery for completeness, damage, and defects. Submit claims for transportation damage.

1.4 SCHEDULE OF VALUES

- A. Submit a printed schedule on CONTRACTOR'S standard form or electronic media printout.
- B. Submit Schedule of Values in duplicate within one day after date of OWNER-CONTRACTOR Agreement.
- C. Format: Identify each line item with number and title of the major specification Section.

- D. Include in each line item, the amount of Allowances specified in this section.
- E. Include within each line item, a direct proportional amount of CONTRACTOR'S overhead and profit.
- F. Include 10% retention on all applications for payment.
- G. Revise schedule to list approved Change Orders, with each Application For Payment.

1.5 APPLICATIONS FOR PAYMENT

- A. Submit three copies of each application on CONTRACTOR'S electronic media driven form.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
- C. Applications shall be made at 45 day intervals, coinciding with Ambler Crossings Development Partners, LP Grant Reimbursement Dates.
- D. Provide copies of all current Certified Payroll Reports with each application for payment.
- E. Provide partial lien releases with each subsequent application for payment.

1.6 CHANGE PROCEDURES

- A. The OWNER shall advise of minor changes in the Work not involving an adjustment to Contract Sum/Price or Contract Time as authorized by issuing supplemental instructions.
- B. The OWNER may issue a Notice of Change which includes a detailed description of a proposed change with supplementary or revised Drawings and specifications. CONTRACTOR shall prepare and submit an estimate within one day.
- C. The CONTRACTOR may also propose a change order by submitting a request for change to the OWNER, describing the proposed change and its full effect on the Work. Include a statement describing the reason for the change, and the effect on the Contract Sum/Price and Contract Time with full documentation. Change orders shall be submitted for review and approval of ENGINEER and be signed by the ENGINEER and CONTRACTOR before OWNER will evaluate.
- D. Stipulated Sum/Price Change Order: Based on Notice of Change and CONTRACTOR's fixed maximum price quotation or CONTRACTOR'S request for a Change Order as approved by OWNER.
- E. Unit Price Change Order: For contract unit prices and quantities, the Change Order shall be executed on a fixed unit price basis. For unit costs or quantities of units of work which are not pre-determined, execute Work under a Construction Change Directive. Changes in Contract Sum/Price or Contract Time will be computed as specified for Time and Material Change Order.
- F. Construction Change Directive: OWNER may issue a directive, signed by the OWNER,

instructing the CONTRACTOR to proceed with a change in the Work, for subsequent inclusion in a Change Order. Document shall describe changes in the Work, and designate method of determining any change in Contract Sum/Price or Contract Time. Promptly execute the change.

- G. Time and Material Change Order: Submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract. ENGINEER shall determine the change allowable in Contract Sum/Price and Contract Time as provided in the Contract Documents.
- H. Maintain detailed records of work done on Time and Material basis. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.
- I. Change Order Forms: CONTRACTOR's standard Change Order form.
- J. Execution of Change Orders: OWNER will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.

1.7 DEFECT ASSESSMENT

- A. Replace the Work, or portions of the Work, not conforming to specified requirements.
- B. If, in the opinion of the OWNER, it is not practical to remove and replace the Work, the OWNER will direct an appropriate remedy or adjust payment.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01039

COORDINATION AND MEETINGS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Coordination and project conditions.
- B. Preconstruction meeting.
- C. Site mobilization meeting.

1.2 COORDINATION AND PROJECT CONDITIONS

- A. Coordinate scheduling, submittals, and Work to ensure efficient and orderly sequence of installation of interdependent construction elements.
- B. The CONTRACTOR shall verify utility requirements and characteristics of construction equipment are compatible with available utilities. Make appropriate arrangements for utilities which are not currently available but will be required by the CONTRACTOR.
- C. Coordinate completion and clean-up of Work of separate sections in preparation for Substantial Completion.

1.3 PRECONSTRUCTION MEETING

- A. ENGINEER and OWNER will schedule a meeting after Notice of Award.
- B. Attendance Required: OWNER, ENGINEER, and CONTRACTOR.
- C. Agenda:
 - 1. Submission of executed bonds, if required, and insurance certificates.
 - 2. Distribution of Contract Documents.
 - 3. Submission of list of Products, schedule of values, and progress schedule.
 - 4. Designation of personnel representing the parties in Contract, OWNER and CONTRACTOR.
 - 5. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
 - 6. Scheduling.
- D. Record minutes and distribute copies within one day after meeting to participants, with copies to OWNER, ENGINEER, and those affected by decisions made. Minutes will be considered accepted unless notice of correction is provided to all parties within 48 hours of receipt, by the objecting party.

1.4 SITE MOBILIZATION MEETING

- A. OWNER will schedule a meeting at the Project site prior to CONTRACTOR occupancy.
- B. Attendance Required: OWNER or Designate and CONTRACTOR.
- C. Agenda:
 - 1. Use of premises by OWNER and CONTRACTOR.
 - 2. OWNER's requirements.
 - 3. Construction facilities and controls.
 - 4. Temporary utilities.
 - 5. Survey and building layout.
 - 6. Security and housekeeping procedures.
 - 7. Schedules.
 - 8. Application for payment procedures.
 - 9. Procedures for testing.
 - 10. Procedures for maintaining record documents.
 - 11. Inspection and acceptance of work performed by CONTRACTOR.
- D. Record minutes and distribute copies within one day after meeting to participants, with copies to OWNER, participants, CONTRACTOR and those affected by decisions made.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01300

SUBMITTALS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Submittal procedures.
- B. Construction progress schedules.
- C. Proposed Products list.
- D. Product Data.
- E. Design data.
- F. Test reports.
- G. Certificates.
- H. Construction photographs.

1.2 RELATED SECTIONS

- A. Section 01400 - Quality Control
- B. Section 01700 - Contract Closeout.

1.3 REFERENCES

- A. AGC (Associated General Contractors of America) publication "The Use of CPM in Construction - A Manual for General Contractors and the Construction Industry".

1.4 SUBMITTAL PROCEDURES

- A. Transmit each submittal to ENGINEER.
- B. Identify Project, CONTRACTOR, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate.
- C. Apply CONTRACTOR's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.
- D. Schedule submittals to expedite the Project, and deliver to OWNER. Coordinate submission of related items.
- E. For each submittal for review, allow two days excluding delivery time to and from the

CONTRACTOR.

- F. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of the completed Work.
- G. Provide space for CONTRACTOR and OWNER review stamps.
- H. When revised for resubmission, identify all changes made since previous submission.
- I. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
- J. Submittals not requested will not be recognized or processed.

1.5 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial schedule in duplicate within one day after date Notice to Proceed.
- B. Revise and resubmit as required, but not less than once per week.
- C. Submit revised schedules updating progress on a weekly basis or more frequently as changes occur.
- D. Submit a horizontal bar chart with separate line for each section of Work, identifying first work day of each week.
- E. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate the early and late start, early and late finish, float dates, and duration.
- F. Indicate estimated percentage of completion for each item of Work at each submission.
- G. Indicate submittal dates required for shop drawings, product data, samples, and product delivery dates, including those furnished by OWNER and required by Allowances.

1.6 PROPOSED PRODUCTS LIST

- A. Within one day after date of Notice to Proceed, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

1.7 PRODUCT DATA

- A. Product Data For Review:
 - 1. Submitted to ENGINEER for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.

2. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article above and for record documents purposes described in Section 01700 - CONTRACT CLOSEOUT.
- B. Product Data For Information:
 1. Submitted to the ENGINEER contract administrator or for the OWNER.
 - C. Product Data For Project Close-out:
 1. Submitted for the OWNER'S benefit during and after project completion.
 - D. Submit the number of copies which the CONTRACTOR requires, plus one copy which will be retained by the OWNER.
 - E. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
 - F. After review distribute in accordance with the Submittal Procedures article above and provide copies for record documents described in Section 01700 - CONTRACT CLOSEOUT.

1.8 DESIGN DATA

- A. Submit to the ENGINEER contract administrator.
- B. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.

1.9 TEST REPORTS

- A. Submit to the ENGINEER contract administrator or for the OWNER.
- B. Submit test reports for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.

1.10 CERTIFICATES

- A. When specified in individual specification sections, submit certification by the manufacturer, installation/application subcontractor, or the CONTRACTOR to ENGINEER, in quantities specified for Product Data.
- B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Product, but must be acceptable to ENGINEER. Certificate may be recent or previous test results on material or Product, provided the test results show conformity with any and all applicable codes, and provided that the form is acceptable to the ENGINEER, CONSTRUCTION MANAGER, and OWNER.

1.11 CONSTRUCTION PHOTOGRAPHS

- A. At project completion, submit photographs to OWNER.
- B. Photographs: One print; color; 4 x 6 inch size; mounted on 8-1/2 x 11 soft card stock, with left edge binding margin for three hole punch. Electronic photographs to be submitted on CD.
- C. Take site photographs from differing directions and interior photographs indicating the relative progress of the Work.
- D. Identify photographs with date, time, orientation, and project identification.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01400
QUALITY CONTROL

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Quality assurance - control of installation.
- B. Tolerances
- C. References and standards.
- D. Testing services.
- E. Inspection services.

1.2 RELATED SECTIONS

- A. Section 01300 - Submittals.
- B. Section 01600 - Material and Equipment.

1.3 QUALITY ASSURANCE - CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from ENGINEER before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform Work by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.4 TOLERANCES

- A. Monitor fabrication and installation tolerance control of Products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from ENGINEER before proceeding.

1.5 REFERENCES AND STANDARDS

- A. For Products or workmanship specified by association, trade, or other consensus standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard by date of issue current on date for receiving bids, except where a specific date is established by code.
- C. Obtain copies of standards where required by product specification sections.
- D. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of the ENGINEER nor OWNER shall be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.6 TESTING SERVICES

- A. OWNER will appoint, employ, and pay for specified services of an independent firm to perform testing, if needed.
- B. Testing and source quality control may occur on or off the project site.
- C. Reports will be submitted by the independent firm to the ENGINEER, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.
- D. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.
 - 1. Notify OWNER and independent firm 24 hours prior to expected time for operations requiring services.
- E. Testing does not relieve CONTRACTOR to perform Work to contract requirements.
- F. Re-testing required because of non-conformance to specified requirements shall be performed by the same independent firm on instructions by the OWNER. Payment for re-testing will be charged to the CONTRACTOR by deducting testing charges from the Contract Sum/Price.

1.7 INSPECTION SERVICES

- A. OWNER may appoint, employ, and pay for specified services of an independent firm to perform inspection or conduct his own inspections.
- B. The independent firm will perform inspections and other services specified in individual specification sections and as required by the OWNER.
- C. Inspecting may occur on or off the project site.
- D. Reports will be submitted by the independent firm to the ENGINEER, indicating inspection observations and indicating compliance or non-compliance with Contract Documents.
- E. Cooperate with independent firm; furnish safe access and assistance by incidental labor as requested.
 - 1. Notify OWNER and independent firm 24 hours prior to expected time for operations requiring services.
- F. Inspecting does not relieve CONTRACTOR to perform Work to contract requirements.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that post demolition site conditions are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Examine and verify specific conditions described in individual specification sections.
- C. Verify that utility services are available, of the correct characteristics, and in the correct locations.

END OF SECTION

SECTION 1500

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Temporary Utilities: Electricity, lighting, telephone service, water and sanitary facilities, to be provided by the CONTRACTOR and paid for by the CONTRACTOR for all work. Hoses and nozzles shall be provided by the CONTRACTOR for all work as well.
- B. Temporary Controls: Barriers, enclosures and 6' high portable perimeter fencing, protection of the Work, and water control, to be provided by the CONTRACTOR for all work. No trespassing and asbestos work signs, as required by regulations, shall be posted on the perimeter fence line. Orange safety fence may be used to protect excavation or other unsafe areas within perimeter fencing.

Stormwater Controls – see Section 01010 5.1 (vii).

Dust Controls – see Section 01010 5.1(viii).

- C. Construction Facilities: Access roads, parking and site progress cleaning, by the CONTRACTOR.

1.2 RELATED SECTIONS

- A. Section 01700 - Contract Closeout.

1.3 TEMPORARY ELECTRICITY

- A. Cost: By CONTRACTOR; provide and pay for power service required from PECO.
- B. Provide temporary electric feed from the electrical service at location as directed.
- C. Complement existing power service capacity and characteristics as required.
- D. Provide power outlets for construction operations, with branch wiring and distribution boxes located as required. Provide flexible power cords as required.
- E. Provide main service disconnect and over-current protection at convenient location and meter.
- F. Permanent convenience receptacles may not be utilized during construction.

1.4 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

- A. Provide and maintain 1 watt/sq ft (10.8 watt/sq m) lighting to exterior staging and storage areas after dark for security purposes.

- B. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps as required.
- C. Maintain lighting and provide routine repairs.
- D. Permanent building lighting may not be utilized during demolition.

1.5 TEMPORARY HEATING

[Not used]

1.6 TEMPORARY VENTILATION

- A. Ventilate enclosed areas as needed to prevent accumulation of dust, fumes, vapors, or gases.

1.7 TELEPHONE SERVICE

- A. Provide, maintain, and pay for telephone service to field office at time of project mobilization.

1.8 FACSIMILE SERVICE

Not Used.

1.9 TEMPORARY WATER SERVICE

- A. Water service requirements must be determined by CONTRACTOR prior to beginning demolition activities.
- B. Exercise measures to conserve water. Provide separate metering and pay for water used.
- C. Extend branch piping with outlets located so water is available by hoses with threaded connections. Provide temporary pipe insulation to prevent freezing if required by season.

1.10 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Existing facility use is not permitted. The CONTRACTOR shall provide at time of project mobilization through project completion.

1.11 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and all adjacent properties from damage from construction operations and demolition.
- B. Protect non-owned vehicular traffic, stored materials, site, and structures from damage, if so designated as not being demolished.

- C. Secure all permits required for implementation of the site work, including but not limited to, sidewalk and/or road closures, as required.
- D. No trespassing and asbestos work signs, as required by regulations, shall be posted on the perimeter fence line.

1.12 FENCING

- A. Construction: Orange plastic safety fence to be deployed in individual work areas for safety purposes.
- B. Provide 6 foot high fence temporary sections surrounding the site throughout the project. No trespassing and asbestos work signs, as required by regulations, shall be posted on the perimeter fence line.

1.13 WATER CONTROL

- A. Grade section of site. No excavations and/or pumping are permitted without the approval of the ENGINEER.

1.14 INTERIOR ENCLOSURES

Not Used.

1.15 PROTECTION OF INSTALLED WORK

Not Used.

1.16 SECURITY

- A. Provide security as required to protect the work and prevent the theft of materials being salvaged.

1.17 ACCESS ROADS

- A. Construct and maintain temporary roads accessing public thoroughfares to serve construction area.
- B. Extend and relocate as Work progress requires. Provide detours necessary for unimpeded traffic flow.
- C. Provide and maintain access to fire hydrants, free of obstructions.
- D. Provide means of removing mud from vehicle wheels before entering streets, if needed.

1.18 PARKING

- A. Designate with OWNER's approval surface parking areas away from the site to accommodate construction personnel.

1.19 PROGRESS CLEANING AND WASTE REMOVAL

- A. Maintain areas free of waste materials, debris, dust, mud and rubbish. Maintain site in a clean and orderly condition.
- B. The CONTRACTOR shall collect and properly store non-hazardous solid/municipal waste materials, debris, and rubbish at the site.
- C. The CONTRACTOR shall manage waste generated as part of his work.

1.20 PROJECT IDENTIFICATION

- A. No signs are allowed without OWNER permission except those required by law.

1.21 FIELD OFFICES AND SHEDS

- A. Office: Weather tight, with lighting, electrical outlets, heating, cooling and ventilating equipment, and equipped with sturdy furniture.
- B. Provide space for Project meetings and independent firm.
- C. Locate offices and sheds a minimum distance of 30 feet from existing structures.

1.22 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore any existing and permanent facilities damaged during construction to original condition.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01600
MATERIAL AND EQUIPMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Products.
- B. Transportation and handling.
- C. Storage and protection.
- D. Product options.
- E. Substitutions.

1.2 RELATED SECTIONS

- A. Section 01400 - Quality Control.

1.3 PRODUCTS

- A. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.
- B. Provide interchangeable components of the same manufacture for components being replaced.

1.4 TRANSPORTATION AND HANDLING

- A. Transport and handle Products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to ensure that Products comply with requirements, quantities are correct, and Products are undamaged.
- C. Provide equipment and personnel to handle Products by methods to prevent soiling, disfigurement, or damage.

1.5 STORAGE AND PROTECTION

- A. Store and protect Products in accordance with manufacturers' instructions.
- B. Store with seals and labels intact and legible.
- C. Store sensitive Products in weather tight, climate controlled, enclosures in an environment favorable to Product.
- D. For exterior storage of fabricated Products, place on sloped supports above ground.

- E. Provide off-site storage and protection when site does not permit on-site storage or protection.
- F. Cover Products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of Products.
- G. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- H. Provide equipment and personnel to store Products by methods to prevent soiling, disfigurement, or damage.
- I. Arrange storage of Products to permit access for inspection. Periodically inspect to verify Products are undamaged and are maintained in acceptable condition.

1.6 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any Product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named in accordance with the following article.

1.7 SUBSTITUTIONS

- A. OWNER will consider requests for Substitutions only within 15 days after date of OWNER-CONTRACTOR Agreement.
- B. Substitutions may be considered when a Product becomes unavailable through no fault of the CONTRACTOR.
- C. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- D. A request constitutes a representation that the CONTRACTOR:
 - 1. Has investigated proposed Product and determined that it meets or exceeds the quality level of the specified Product.
 - 2. Shall provide the same warranty for the Substitution as for the specified Product.
 - 3. Shall coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to OWNER.
 - 4. Waives claims for additional costs or time extension which may subsequently become apparent.
 - 5. Shall reimburse OWNER for review or redesign services associated with re-approval by authorities.
- E. Substitutions will not be considered when they are indicated or implied on shop

drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.

F. Substitution Submittal Procedure:

1. Submit three copies of request for Substitution for consideration. Limit each request to one proposed Substitution.
2. Submit shop drawings, product data, and certified test results attesting to the proposed Product equivalence. Burden of proof is on proposer.
3. The OWNER will notify CONTRACTOR in writing of decision to accept or reject request.

PART 3 PRODUCTS

Not Used.

PART 4 EXECUTION

Not Used.

END OF SECTION

SECTION 01700
CONTRACT CLOSEOUT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Closeout procedures.
- B. Final cleaning.
- C. Adjusting.
- D. Project record documents.
- E. Operation and maintenance data.
- F. Spare parts and maintenance Products.
- G. Warranties and bonds.
- H. Maintenance service.

1.2 RELATED SECTIONS

- A. Section 01500 - Construction Facilities and Temporary Controls.

1.3 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for ENGINEER 'S review.
- B. Provide submittals to ENGINEER that are required by governing or other authorities.
- C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.

1.4 FINAL CLEANING

- A. Execute final cleaning prior to final project assessment.
- B. Clean site; sweep paved areas, rake clean landscaped surfaces.
- C. Remove waste and surplus materials, rubbish, and construction facilities from the site.

1.5 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:

1. Drawings.
 2. Specifications.
 3. Addenda.
 4. Change Orders and other modifications to the Contract.
 5. Reviewed Shop Drawings, Product Data, and Samples.
 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by OWNER.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.
- E. Specifications: Legibly mark and record at each Product section description of actual Products installed, including the following:
1. Manufacturer's name and product model and number.
 2. Product substitutions or alternates utilized.
 3. Changes made by Addenda and modifications.
- F. Submit documents to OWNER.

1.6 WARRANTIES AND BONDS

- A. Provide duplicate notarized copies.
- B. Execute and assemble transferable warranty documents from Subcontractors, suppliers, and manufacturers.
- C. Submit prior to final Application for Payment.
- D. For items of Work delayed beyond date of Substantial Completion, provide updated submittal within 10 days after acceptance, listing date of acceptance as start of warranty period.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

DIVISION 2 - SITE WORK

SECTION 02060

ENVIRONMENTAL SERVICES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Submittals.
- B. Project record documents.
- C. Qualifications.
- D. Regulatory requirements.
- E. Sequencing.
- F. Scheduling.
- G. Products.
- H. Execution.

1.2 RELATED SECTIONS

- A. Section 01039 - Coordination and Meetings.
- B. Section 01500 - Construction Facilities and Temporary Controls.
- C. Section 01600 - Material and Equipment.
- D. Section 01700 - Contract Closeout.
- E. Section 02064 - Equipment Salvaging and Disassembling.
- F. Section 02205 - Soil Materials: Backfill materials.
- G. Section 02999 - Environmental Protection.

1.3 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Submittals required:
 - 1. Project Schedule.
 - 2. Health and Safety Plan.

1.4 PROJECT RECORD DOCUMENTS

- A. Submit under provisions of Section 01700.
- B. Accurately record actual locations of capped utilities and subsurface obstructions.

1.5 QUALIFICATIONS

- A. **CONTRACTOR Firm:** Company specializing in performing the Work of this Section meeting all requirements defined in Attachment 12, "Qualifications of Contractor".

1.6 REGULATORY REQUIREMENTS

- A. Conform to applicable code for demolition of structures, safety of adjacent structures, dust control, runoff control and disposal.
- B. Obtain required permits from authorities.
- C. Notify affected utility companies before starting work and comply with their requirements. Make Pennsylvania "DIG-ONE" call.
- D. Do not close or obstruct roadways, sidewalks or hydrants without permits.
- E. Conform to applicable regulatory procedures when discovering hazardous or contaminated materials.
- F. Buried Tanks: Notify ENGINEER immediately upon discovery of any unknown buried tanks.
- G. The Property is described as an inactive waste disposal site regulated by National Emissions Standard for Hazardous Air Pollutants (NESHAP) 40 CFR 61.151. The CONTRACTOR is responsible to submit the 45-day notice as required to be submitted documenting the activities to be completed which will disturb site soils impacted with asbestos and provide a schedule of work. This notice must be submitted a minimum of 45 days prior to site mobilization. If the work will begin on a date other than the one contained in the original notice, notice of the new start date must be provided at least 10 working days before work begins and in no event shall work begin earlier than the date specified in the original notification.

1.7 SEQUENCING

- A. Sequence activities to abate the Work as indicated in the schedule supplied with the bid.

1.8 SCHEDULING

- A. Describe schedule in Bid.
- B. Perform work between the hours of 7:00 AM and 5:00 PM, or as otherwise limited by local ordinance.

PART 2 PRODUCTS

2.1 FILL MATERIALS

- A. Fill Material: Backfill, specified in Section 02223.

PART 3 EXECUTION

3.1 PREPARATION

- A. Provide, erect, and maintain temporary barriers and security devices. No trespassing and asbestos work signs, as required by regulations, shall be posted on the perimeter fence line.
- B. Protect existing landscaping materials, appurtenances and structures which are not to be demolished.
- C. Prevent movement or settlement of adjacent structures. Provide bracing and shoring.
- D. Mark location of utilities.
- E. All work must be performed in compliance with local, state, and federal environmental laws and regulations in effect at the time work is performed at the site.

3.2 REQUIREMENTS

- A. Conduct demolition to minimize interference with adjacent structures.
- B. Cease operations immediately if adjacent structures appear to be in danger. Notify OWNER. Do not resume operations until directed.
- C. Conduct operations with minimum interference to public or private accesses. Maintain protected egress and access at all times.
- D. Obtain written permission from adjacent property owners when demolition equipment will traverse, infringe upon or limit access to their property.
- E. Sprinkle Work with water to minimize dust. No visible emissions shall be permitted. Provide hoses, water connections and misting systems as applicable for this purpose.

3.3 SCHEDULES

- A. Relics, antiques, and similar objects remain the property of OWNER. Obtain direction regarding method of removal.
- B. Items to be removed, stored, and protected for re-installation:
None.
- C. Items to be removed and be retained by OWNER; deliver to location designated by

OWNER.

None.

D. Items to be removed and kept by the OWNER:

None.

E. Items to be protected:

1. Public areas and access roads.

END OF SECTION

SECTION 02063

HAZARDOUS MATERIALS AND WASTE MANAGEMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Federal, State and Local laws and regulations.
- B. Special considerations for project.
- C. Products.
- D. Execution.

1.2 LAWS AND REGULATIONS

- A. The CONTRACTOR shall complete salvaging and disassembly work in full and complete accordance with federal, state, and local environmental laws and regulations applicable to the work.
- B. CONTRACTOR shall hold harmless OWNER and ENGINEER due to CONTRACTOR'S failure to comply with environmental laws and regulations.

1.3 SPECIAL CONSIDERATIONS FOR THE PROJECT

- A. CONTRACTOR shall be required to properly containerize and label any and all hazardous materials, hazardous wastes, residual wastes, historic fill, special handling wastes (including asbestos and asbestos wastes), or magnesia materials which are generated during the project. Each day, waste must be moved to a designated covered or tarped area, and all of the provisions of Section 02999-Environmental Protection, must be followed.
- B. If any unknown wastes are encountered, the ENGINEER shall be notified immediately, and the CONTRACTOR shall cooperate in assisting with identifying and resolving the issue. CONTRACTOR may continue work outside the immediate area in the event such a problem is found, and shall keep the ENGINEER advised on a daily basis of all waste generated at the site. Waste generated may be stored in interior areas only, in a location acceptable to ENGINEER and OWNER.
- C. Prior to the removal of ANY soil from the site, CONTRACTOR shall be responsible to demonstrate to the OWNER and the ENGINEER that the material was unable to be managed and or otherwise permanently placed elsewhere on the site as part of the overall soil management program for the project. Removal of any soil from the site should be regarded as a last option for soil management in connection with this project.

PART 2 PRODUCTS

- 2.1 All waste containers shall meet DOT and state requirements for the type of waste actually stored. Where roll-off containers are used in exterior areas, they shall be tarped at the close of each day, so as to prevent water erosion. Additionally, on a weekly basis, CONTRACTOR shall prepare an inventory of materials to be recycled and waste stored at the site, and the projected date for removal and disposal.

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 02065

EROSION AND SEDIMENTATION CONTROL

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Erosion and sedimentation control work to be performed by the CONTRACTOR.

1.2 RELATED SECTIONS

- A. Section 02205 Soil Materials
- B. See **Attachment 5**, Land Development Plans

1.3 SPECIAL CONSIDERATIONS FOR THE PROJECT

- A. A silt fence shall be installed where needed onsite.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

- A. A properly installed silt fence shall be constructed to prevent surface runoff from entering or exiting the site.

END OF SECTION

SECTION 02205

SOIL MATERIALS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Subsoil materials.
- B. Topsoil materials.

1.2 RELATED SECTIONS

- A. Section 01019 - Contract Considerations.

1.3 REFERENCES

- A. AASHTO T180 - Moisture-Density Relations of Soils Using a 10-lb (4.54 kg) Rammer and an 18-in. (457 mm) Drop.
- B. ASTM D698 - Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures, Using 5.5 lb (2.49 Kg) Rammer and 12 inch (304.8 mm) Drop.
- C. ASTM D1556 - Test Method for Density of Soil in Place by the Sand-Cone Method.
- D. ASTM D1557 - Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10 lb (4.54 Kg) Rammer and 18 inch (457 mm) Drop.
- E. ASTM D2167 - Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
- F. ASTM D2487 - Classification of Soils for Engineering Purposes.
- G. ASTM D2922 - Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
- H. ASTM D3017 - Test Method for Moisture Content of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).

1.4 SUBMITTALS FOR REVIEW

- A. Section 01300 - Submittals: Procedures for submittals.

1.5 SUBMITTALS FOR INFORMATION

- A. Section 01300 - Submittal.
- B. Materials Source: Submit name of any/all imported materials source(s).

1.6 QUALITY ASSURANCE

- A. Perform work in accordance with the Commonwealth of Pennsylvania applicable standards. Backfill material shall be compacted and graded to prevent stormwater ponding.

PART 2 PRODUCTS

2.1 SUBSOIL MATERIALS

- A. Subsoil Type: Conforming to applicable State or local standards.
- B. If subsoil material is required; CONTRACTOR shall submit proposed backfill material gradation for approval prior to bringing backfill material to job site.
- C. Only material which qualifies as "clean fill", under the PA Department of Environmental Protection "Clean Fill Policy" and which can support load bearing residential structures shall be acceptable.

2.2 TOPSOIL MATERIALS

- A. Conforming to applicable state or local standards.
- B. CONTRACTOR shall submit proposed top soil material specifications for approval prior to bringing material to job site.

2.3 SOURCE QUALITY CONTROL

- A. Testing and Analysis of Subsoil Material: Perform in accordance with one of the following standards: ASTM D698; ASTM D1557; AASHTO T180; ASTM D2167; ASTM D2922; ASTM D3017. 90% compaction must be achieved and appropriate documentation must be provided to ENGINEER.
- B. If tests indicate materials do not meet specified requirements, change material and retest.
- C. Provide materials of each type from same source throughout the Work.

PART 3 EXECUTION

3.1 SOIL REMOVAL

Prior to the removal of ANY soil from the site, CONTRACTOR shall be responsible to demonstrate to the OWNER and the ENGINEER that the material was unable to be managed and or otherwise permanently placed elsewhere on the site as part of the overall soil management program for the project. Removal of any soil from the site should be regarded as a last option for soil management in connection with this project.

AND

(DESCRIBED ELSEWHERE IN THESE SPECIFICATIONS)

3.2 STOCKPILING

- A. Stockpile materials on site at locations indicated by ENGINEER and OWNER.
- B. Stockpile in sufficient quantities to meet Project schedule and requirements.
- C. Separate differing materials with dividers or stockpile apart to prevent mixing.
- D. Prevent intermixing of soil types or contamination. Preclude wind/water dispersal by covering impacted materials.
- E. Direct surface water away from stockpiles to prevent erosion or deterioration of materials.
- F. Install silt fence around the perimeter of stockpiled materials to prevent water dispersion.

3.3 STOCKPILE CLEANUP

- A. Remove stockpile, leave area in a clean and neat condition. Grade site surface to prevent free standing surface water.

END OF SECTION

SECTION 02223

BACKFILLING/FILLING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Backfilling and filling work by the CONTRACTOR

1.2 RELATED SECTIONS

- A. Section 01400 - Quality Control.
- B. Section 02205 - Soil Materials.

1.3 REFERENCES

- A. AASHTO T180 - Moisture-Density Relations of Soils Using a 10-lb (4.54 kg) Rammer and an 18-in. (457 mm) Drop.
- B. ASTM D698 - Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures, Using 5.5 lb (2.49 Kg) Rammer and 12 inch (304.8 mm) Drop.
- C. ASTM D1556 - Test Method for Density of Soil in Place by the Sand-Cone Method.
- D. ASTM D1557 - Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10 lb (4.54 Kg) Rammer and 18 inch (457 mm) Drop.
- E. ASTM D2167 - Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
- F. ASTM D2922 - Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
- G. ASTM D3017 - Test Methods for Moisture Content of Soil and Soil-Aggregate Mixtures.

PART 2 PRODUCTS

2.1 FILL MATERIALS

- A. Select Fill.
 - 1. Select/Clean fill should be a native soil material, suitable for compaction to 90 percent ASTM dry density. The CONTRACTOR shall submit name of borrow source and proctor curve information for approval. Select/Clean fill shall contain no stones, boulders or rocks greater than two inches in size.
 - 2. Place fill areas where designated.

B. Crushed Concrete/ Masonry Material

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify location of utilities. Make "DIG-ONE" utility notification call.
- B. Verify structural ability of unsupported walls to support imposed loads by the fill.

3.2 PREPARATION

- A. Compact subgrade (if required by the ENGINEER).
- B. Cut out soft areas of subgrade not capable of compaction in place. Backfill with select fill and compact to density equal to or greater than requirements for subsequent fill material.
- C. Proof roll subgrade surface to identify soft spots; fill and compact to density equal to or greater than requirements for subsequent fill material.

3.3 BACKFILLING

- A. Backfill by methods and with materials needed to support future construction as specified by engineering drawings supplied by OWNER.
- B. Backfill areas to contours and elevations with unfrozen materials.
- C. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, frozen or spongy subgrade surfaces.
- D. Select Fill: Place and compact materials in equal continuous layers not exceeding 8 inches compacted depth.
- E. Employ a placement method that does not disturb or damage other work.
- F. Maintain optimum moisture content of backfill materials to attain required compaction density.
- G. Do not backfill against unsupported foundation walls unless approved by ENGINEER.
- H. Backfill simultaneously on each side of unsupported foundation walls until supports are in place.
- I. Slope grade away from proposed building location(s) minimum 3 inches in 10 ft, unless noted otherwise.
- J. Make gradual grade changes. Blend slope into level areas.
- K. Remove surplus backfill materials from site if approved by the ENGINEER.

- L. Leave fill material stockpile areas free of excess fill materials.

3.4 TOLERANCES

- A. Top Surface of General Backfilling: No ponding at completion of project and for six months thereafter.
- B. Minimum 90% compaction of backfill material's dry density proctor value.

3.5 FIELD QUALITY CONTROL

- A. Section 01400 - Quality Assurance.
- B. Compaction testing shall be performed in accordance with one of the following standards: ASTM D1556; ASTM D1557; ASTM D698; AASHTO T180; ASTM D2167; ASTM D2922; ASTM D3017.
- C. If tests indicate Work does not meet specified requirements, replace and retest.
- D. Frequency of Tests: One per 1000 square feet.
- E. No testing required for crushed concrete/masonry material placement.

3.6 PROTECTION OF FINISHED WORK

- A. Protect finished Work under provisions of Section 01500.

3.7 SCHEDULE

- A. Exterior Side of Foundation Walls, Retaining Walls and Over Granular Filter Material and Foundation Perimeter Drainage:
 - 1. Select/Clean Fill, each lift compacted to 90 percent standard or modified proctor.
- B. Fill to Correct Over-excavation or where soil placement/compaction not practical:
 - 1. Lean concrete to minimum compressive strength of 1000 psi if needed.

END OF SECTION

SECTION 02936

SEEDING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Temporary Seeding and Permanent Seeding

1.2 RELATED SECTIONS

Not Used

1.3 REFERENCES

- A. See Land Development Plans, **Attachment 5**.

PART 2 PRODUCTS

2.1 SEEDING

- A. See Land Development Plans, **Attachment 5**.

PART 3 EXECUTION

3.1 TEMPORARY SEEDING

- A. All temporary seeding shall be conducted in accordance with the Penn State Agronomy Guide, including selection of species, seed specifications, mixtures, liming and fertilizing, time of seeding, and seeding materials.
- B. See Land Development Plans, **Attachment 5**.

END OF SECTION

SECTION 02999

ENVIRONMENTAL PROTECTION

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Laws and regulations.
- B. Special considerations for project.
- C. Waste treatment and disposal.
- D. Products.
- E. Execution.

1.2 LAWS AND REGULATIONS

- A. CONTRACTOR shall complete work in full and complete accordance with Federal, State and Local environmental laws and regulations applicable to the Work.
- B. Notice for Work to State and Federal agencies shall be completed by CONTRACTOR before the start of the Work. Property is described as an inactive waste disposal site regulated by National Emissions Standard for Hazardous Air Pollutants (NESHAP) 40 CFR 61.151. The CONTRACTOR is responsible to submit the 45-day notice as required to be submitted documenting the activities to be completed which will disturb site soils impacted with asbestos and provide a schedule of work. This notice must be submitted a minimum of 45 days prior to site mobilization. If the work will begin on a date other than the one contained in the original notice, notice of the new start date must be provided at least 10 working days before work begins and in no event shall work begin earlier than the date specified in the original notification.
- C. CONTRACTOR shall hold harmless OWNER due to his failure to comply with environmental laws and regulations.

1.3 SPECIAL CONSIDERATIONS FOR THE PROJECT

- A. The CONTRACTOR shall implement special environmental protection measures for this project including:
 - Excavation and removal of historic fill, asbestos, asbestos impacted soil, magnesia materials.
 - Containers (drums) to be supplied by the CONTRACTOR, if needed.
 - CONTRACTOR shall conduct work to avoid cutting, drilling or abrading of

asbestos containing material.

- CONTRACTOR is prohibited from excavations except with the express permission of ENGINEER. Subsurface materials at the site are HISTORIC FILL, and may also contain asbestos and/or magnesia material. Any excavation shall require advance submittal and review of site SPECIFIC HEALTH AND SAFETY PLAN. The HISTORIC FILL contains CONCENTRATIONS OF ARSENIC, ASBESTOS, AND/OR MAGNESIA MATERIAL.
- Health and safety requirements are included in **Attachment 4**.
- Environmental information on site materials is included in **Attachments 7 and 10**.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.1 DUST CONTROL

- A. No visible emissions shall be allowed to occur during construction activities. The CONTRACTOR shall implement adequate wetting to meet this requirement at all times. CONTRACTOR shall be responsible for providing adequate method of dust control (water suppression, misting system and/or equivalent) during activities which may disturb asbestos material present on the site as indicated throughout this Specification, including but not limited to excavation work, demolition work, all crushing activities etc. CONTRACTOR shall submit, for the ENGINEER's approval, the means and methods for controlling dust prior to implementation of any work which will disturb asbestos containing materials.
- B. During construction activities, care shall be taken by the equipment operators to minimize the potential for dust generation during the work. Operators shall control dust by reducing speed of vehicles where practical which shall minimize the potential for dust generation. Operators shall be given a daily briefing from the Site Superintendent prior to implementation of work on the Site and review procedures to minimize dust generation during drilling activities.
- C. Buckets on excavation equipment shall not be overfilled such that soil is falling from the bucket when the bucket is swinging to the location of placement or loading. Whether placing soil in a haulage vehicle, directly into the designated fill area, or on the ground surface adjacent to the excavation, the soil shall be carefully released from the excavation equipment. The length of drop shall be as short as possible to minimize agitation of the soil and the potential release of dust and/or asbestos fibers.
- D. Misting of disturbed areas, as necessary, 24 hours per day. High pressure spray systems (misting systems) shall be used by the CONTRACTOR to minimize the potential for dust generation. The high pressure spray system to be utilized shall

be a NESCO Dust Boy or equivalent. The high pressure spray uses a powerful mist to suppress dust while conserving water (preventing over wetting of materials). The high pressure spray shall operate at 200 psi and be capable of spraying up to 20 gpm of water (if needed). The water source for the high pressure spray system shall be public water provided at a nearby hydrant. This shall assure an adequate supply of water during all construction activities to minimize the potential for dust generation. High pressure spray systems shall be placed in close proximity to the work areas, on the up-wind side of the work areas. The location of the high pressure spray system shall be adjusted during the construction activities such that disturbed materials shall be contacted by the spray.

- E. Air monitoring shall be completed by the ENGINEER during the earth disturbance activities. The ENGINEER shall document the prevailing wind direction each day. The ENGINEER shall collect up to three air samples each day, an upgradient location (based on wind direction) and two downgradient locations. Air samples shall be submitted to EMSL Laboratories for analysis. All air samples shall be analyzed via transmission electron microscopy (TEM) via NIOSH method 7402. The TEM method allows for higher resolution and better identification of asbestos fibers. Analytical results shall be provided by the Laboratory within 48 hours.

3.2 EMPLOYEE NOTIFICATION

- A. CONTRACTOR shall notify his employees of the presence of asbestos containing materials and hazardous substances at the work site and conduct training on proper handling methods under state and federal environmental laws and regulations. Such notification shall be in accordance with OSHA requirements.

3.3 UNFORESEEN ITEMS AND RELEASES

- A. Each CONTRACTOR shall promptly and immediately report to OWNER any unexpected finding of waste, unidentified buried tank(s) or hazardous waste(s) or materials. CONTRACTOR shall follow OWNER'S direction regarding such items and shall cooperate, within his expertise to control releases. OWNER shall be responsible for any and all regulatory agency reporting.
- B. CONTRACTOR shall follow requirements indicated in Material Safety Data Sheets (MSDSs) for the handling of all hazardous materials, and MSDSs shall be available for review at the job site. The CONTRACTOR shall further cooperate by assuring that drums are properly labeled, and shall make sure that drums are closed at the end of each workday and whenever accumulation is not taking place.

3.4 HAZARDOUS WASTE REMOVAL

- A. Any Hazardous Waste to be removed from the project shall be managed per Section 02063.
- B. Prior to the removal of ANY soil from the site, CONTRACTOR shall be responsible

to demonstrate to the OWNER and the ENGINEER that the material was unable to be managed and or otherwise permanently placed elsewhere on the site as part of the overall soil management program for the project. Removal of any soil from the site should be regarded as a last option for soil management in connection with this project.

END OF SECTION

ATTACHMENTS