SPECIAL CONDITIONS AND TECHNICAL SPECIFICATIONS

FOR

_____ _____ _____ PROJECT
_____ COUNTY, VIRGINIA

PREPARED BY:
COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENERGY
MINED LAND REPURPOSING
ABANDONED MINE LAND PROGRAM

December 20, 2022

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SPECIAL CONDITIONS

PROJECT NAME

Section 1.

All of the following parts considered as a whole shall comprise the complete specifications. They are complementary and anything called for by one and not the others shall be considered binding as though called for by all.

1.1 Bid Package (General Clauses, General Conditions, Notice and Instructions to Bidders, etc.).

1.2 Special Conditions (Pages 3 - 6) and Construction Specifications (Pages 7 – XX)

1.3 Construction Drawings (Sheets 1 - 4).

Section 2. DEFINITIONS

2.1 The word "Agency" shall mean the Commonwealth of Virginia, Department of Energy, Mined Land Repurposing.

2.2 Where the word "Contract" is used, it shall be understood to refer either to a purchase order placed by the Agency and accepted by the Contractor together with this specification and all other documents referred to in such purchase order; or to a formal contract executed by the Agency and the Contractor together with this specification and other documents referred to in such formal contract.

2.3 The word "Contractor" means the person, firm, or corporation named as such in the contract and includes the plural number and the feminine gender when such are named in the contract as the Contractor.

2.4 The word "Subcontractor" means only those having a direct contract with the Contractor and it includes one who furnishes material worked to a special design but does not include one who merely furnishes material not so worked.

2.5 Where the word "Work" is used, it shall be understood to mean and include any and all labor, supervision, services, materials, machinery, equipment, tools, supplies and facilities called for by, and to complete, the Contract.

Section 3. SCOPE OF WORK

3.1 The work to be performed under the terms of this Specification consists of the general cleaning of clogged stream and revegetation where needed on the site known as the PROJECT NAME in COUNTY, Virginia, for the Commonwealth of Virginia.

3.2 The intent of this Specification is to prescribe the complete work of the project. The specification permits and directs the work conducted by the selected Contractor. If there are any contradictions between the Specifications and Drawings, the Contractor shall bring these facts to the attention of the Agency and obtain the Agency's decision as to the true meaning and intention.

3.2.1 The Contractor remains responsible for timely identifying any conflicts as found to the attention of the agency.
3.2.2 In the absence of a formal written response from the agency, or in the event the Contractor fails to bring such to the attention of the agency, the Contractor is responsible to ensure compliance with the most stringent requirement.

Section 4. TIME SCHEDULE

4.1 The Work shall be executed with sufficient personnel, equipment and material to complete the work in a period of **XX** calendar days.

Section 5. WORK BY CONTRACTOR

The Contractor shall:

5.1 Furnish all supervision, labor, materials, tools and equipment necessary to perform all work. The work shall consist principally of the following:

5.1.1 Install typical Erosion and Sediment control measures as specified to minimize sediment deposits into the stream, Potcamp Fork, during sediment cleanout. **(EXAMPLE)**

5.1.2 Clean out sediment, vegetation, and debris from the existing concrete lined channel and existing culverts specified in the drawings. **(EXAMPLE)**

5.1.3 Revegetate all disturbed areas. **(EXAMPLE)**

5.2 Be responsible for receiving, unloading, storing, protecting and handling all materials and equipment furnished by the Contractor or the Agency for the execution of all work under this Specification.

5.3 Be responsible for demurrage or claims incurred because of negligence in expediting the unloading of materials or equipment.

5.4 Replace any defective material furnished by the Contractor or any defective work performed by the Contractor's forces at the Contractor's own expense.

5.5 Furnish to the Agency for approval before start of work, a Schedule of Work and procedure for construction of the work covered by the contract.

5.6 Be responsible for scheduling, expediting, directing, inspecting and coordinating the work so as to complete the work in the time agreed upon. The Contractor shall immediately notify the Agency of any impending problems, which could delay the completion of the work.

5.7 Before starting the work, contact the Agency for proper clearance and be governed by the Agency's instructions.

5.8 Be responsible for locating, relocating and protecting from damage existing underground and overhead utilities when such utilities are clearly visible. Be responsible for verifying the location of all utilities, pipes, etc. before initiating the work.

5.9 Confine all workers to the construction area.

5.10 Provide drinking water and containers.

5.11 Provide watchmen, safety barricades, lights, signs and other items necessary for layout and installation of the work.

5.12 Furnish all labor, stakes, templates and tools and perform all field surveying and engineering to establish construction quantities and the lines and grades necessary for layout and installation of the work.

5.13 Be completely familiar with the location and accessibility of various construction and storage sites to determine the best material and equipment handling methods for the orderly completion of the work.

5.14 Have on the work site during construction a competent superintendent, duly authorized to represent and act for the Contractor in all matters pertaining to the work covered by this Specification.

5.15 Not perform any additional or temporary work for the Agency's account unless on specified written orders, signed by the Agency's authorized representative and Contractor and only in the amounts of the various types of work specified in said orders.

5.16 Work in close cooperation with the Agency and others engaged in the project so that the work will be completed with dispatch and in an orderly manner.

5.17 Continuously maintain adequate weather and fire protection of the Contractor's work from damage and shall protect property from damage or loss arising in connection with this contract. The Contractor shall make good any such damage or loss.

5.18 Comply with the provisions of the "Occupational Safety and Health Act of 1970, Public Law 91-596", 29 CFR and 30 CFR; and the Safety Codes Commission of the Commonwealth of Virginia, issued by the Department of Labor and Industry under Title 40.1 of the Code of Virginia (1950), as amended. The Contractor shall be held liable to the Agency for any health and/or safety infractions, on the Contractor's part, which cause the Agency or surface owner to receive a citation and/or fine from any local, state or federal agency. Actual costs involved will require satisfaction, by the Contractor, to the Agency or surface owner.

5.19 Maintain the site of work in an orderly manner. The Contractor shall provide personnel and supervision to continuously clean up the construction area under this jurisdiction. Should the Contractor refuse or fail to clean up or remove debris when requested by the Agency, it is understood that the Agency may employ others to do this work, and without further authority withhold the cost thereof from any payment due the Contractor.

5.20 Dispose of all debris and waste resulting from work at a disposal site approved by the Agency. The Contractor shall comply with all Department of Environmental Quality requirements concerning the use, handling, and disposal of petroleum products, working in or near streams and wetlands, burning or releasing emissions into the air, and disposal of solid waste and hazardous or toxic waste. The Contractor shall not put or spill any materials into any drainage system that would pollute area streams or waterways. The Contractor shall be liable for any pollution caused directly or indirectly by the Contractor's employees or those of any subcontractors.

5.21 Furnish all special apparatus, welding machines, air compressors, hoisting equipment, tools, implements, cartage, scaffolding, ladders, planks, acetylene gas, oxygen gas, expendable materials, temporary light and heat, construction materials, shims, and all other materials that may be required for the proper completion of the work.

5.22 Furnish electrical power, gas, compressed air, and any other utilities required for use during construction. The Contractor shall remove all temporary wiring, switches, lights, piping, and connections to service facilities used during construction. Such connections shall not be made without approval of the Agency.

5.23 Provide temporary supports as may be required during construction including those necessary to ensure the stability of the proposed excavation or working under mine roofs.

5.24 Not be permitted to drive any crawler type equipment or rollers on any paved roads except on rubber tire floats or similar vehicles. The Contractor shall protect pavement when it is necessary to move such type equipment across any paved roadway.

5.25 Not be permitted to keep within buildings or structures any stock of gasoline, kerosene, diesel fuel or similar flammable material. Any such flammables shall be stored in areas arranged by the Contractor, in a manner approved by the Agency and in compliance with the Department of Environmental Quality's AST Regulations.

5.26 Be responsible for shoring as required to prevent damage to any adjacent structures, utilities or property.

5.27 Repair to the satisfaction of the Agency, at the Contractor's own expense, any damage to adjacent structures, utilities or property.

5.28 Allow and provide the Agency access to the work for inspection whenever it is in preparation or progress, and provide proper facilities for such access and inspection.

5.29 The drawings and specifications illustrate the general character and scope of the work. Any additional detail and other information deemed necessary by the Agency will be furnished to the Contractor when and as required by the work.

5.30 Where the word "similar" appears on the drawings, it shall be interpreted in its general sense and not as meaning identical, and all details shall be worked out in relation to their location and their connection with other parts of the work.

5.31 The specifications are divided into several parts for convenience only, since the entire specifications must be considered as a whole. The divisions of the specifications are not intended to control the Contractor in dividing the work among subcontractors or to limit the work performed by any trade. The Contractor shall be responsible for the coordination of the trades, subcontractors, and venders engaged upon this work.

5.32 The Contractor shall verify measurements or dimensions shown on the drawings at the site. Where there are discrepancies, the Agency shall be consulted.

5.33 The Contractor shall maintain at the site one copy of all drawings, specifications, addenda, change orders and other modifications, in good order and marked to record all changes made during construction.

5.34 Before performing any excavation, contact Miss Utility, (800) 810-7197, to confirm the location of any below ground utility lines in the work area. The affected utility companies will mark the location of the underground lines within 48 hours after being notified. If the work is to continue more than 15 days, they will return to remark the utility lines as requested. Further details about the Miss Utility program and its requirements are available at the website www.missutilityofvirginia.com.

5.35 The Contractor shall comply with all regulations governing storm water discharges from construction activities. The contractor shall implement an erosion and sediment control plan throughout the duration of construction activities.

5.36 The Contractor shall certify that all materials meet the requirements of these specifications and governing authorities.

5.37 The Contractor shall comply with permits issued by the Army Corps of Engineers and any other permits required to complete construction for this project.

Section 6. WORK BY AGENCY

The Agency will:

6.1 Furnish the site in an “as is” condition.

6.2 Provide limited area, not necessarily adjacent to the site, for storage purposes and for the Contractor’s offices, change houses, sanitary stations, and tool and storage sheds. The Contractor shall make and maintain access to the facilities.

6.3 Furnish all design and detail drawings necessary to complete the specified work. One set of Plans and Specifications will be sold to interested bidders. Additional sets of Plans and Specifications will be issued to the selected Contractor as needed.

6.4 Designate in the field the manner in which the work is to be performed, as conditions warrant, if not detailed in the Specifications or shown on the Drawings.

6.5 Inspect the work during its progress. No work will be considered completed until approved by the Agency.

6.6 Obtain right of entry.

TECHNICAL SPECIFICATIONS
FOR
PROJECT NAME

1. MOBILIZATION

1.A SCOPE

This item shall consist of the mobilization and demobilization of the Contractor's forces and equipment necessary for performing the work required to complete the Contract.

1.B PROCEDURE

1.B.i It shall include the purchase of contract bonds (if applicable), ***eVA fees***, insurance, transportation of personnel, equipment and operating supplies to the site, and other preparatory work at the site. It shall also include making necessary repairs to any access roads.

1.B.ii It shall not include mobilization for any specific item of work for which payment for mobilization is provided elsewhere in the Contract.

1.B.iii This item covers mobilization for work required by the Contract at the time of award. If additional mobilization costs are incurred during performance of the contract as a result of changed or added items of work for which the Contractor is entitled to an adjustment in contract price, compensation for such costs will be included in the price adjustment for the items of work changed or added.

1.C MEASUREMENT AND PAYMENT

1.C.i Measurement: Measurement for MOBILIZATION shall be Lump Sum for the job as shown in the project Scope of Work.

1.C.ii Payment: Total payment for MOBILIZATION shall not exceed 10% of the Base Bid amount. Exceeding this limit may be basis for rejection of the bid as non-responsive. The Base Bid amount shall be the total of all sub-items on the Bid Schedule, less the amount for Mobilization.

Payment for MOBILIZATION shall be the Lump Sum amount listed on the Bid Schedule and shall constitute full compensation for all labor, equipment, materials and incidentals necessary to complete the work.

Payment for MOBILIZATION shall be made on the basis of 50% of the Lump Sum amount on the first invoice submitted and the remaining 50% on the final invoice.

2. SITE PREPARATION

2.A SCOPE

This item shall include all clearing, grubbing and general site preparation work on any areas affected by the project. It shall include the area around the seep location as located on the plans. Site preparation shall further include the complete removal and disposal of all trash, garbage, scraps and debris located within the project limits.

2.B PROCEDURE

2.B.1 Project Limits: stakes, flags, and/or other suitable methods shall mark the limits of the areas to be worked. Site preparation shall be strictly limited to the areas shown on the drawings, unless otherwise directed by the Inspector. The Contractor shall incorporate any adjacent areas reasonably necessary to perform the work when directed to do so by the Inspector.

2.B.2 Disposal: The materials which are cleared, grubbed, stripped or otherwise included as part of this work shall be chipped or buried; burying of materials shall be permissible, provided a minimum of 2 feet of natural soil fill is placed over the buried materials and provided that the concentration of brush and trees to be buried in any one area is not excessive. Any burying of brush in backfill will not be concentrated in one specific area, and will have sufficient cover material to insure stability of the backfill. Borrow and disposal sites must be within the project limits and structures, debris, etc., are to be buried in the project area or hauled to an approved landfill. The Inspector shall approve all areas designated for burial of any cleared and grubbed material prior to placement.

2.D MEASUREMENT AND PAYMENT

2.D.1 Measurement: SITE PREPARATION shall be on a per Job basis for all work accepted and approved by the Agency.

2.D.2 Payment: SITE PREPARATION shall be based upon the Lump Sum amount on the Bid Schedule. Payment as specified shall be full compensation for all labor, materials, equipment and incidentals necessary to complete the work.

3. PROJECT SIGN

3.A SCOPE

The item shall include the installation, maintenance, and removal of a project sign at the project site's most convenient point of public access and in plain view. Erect the sign prior to the commencement of construction, maintain for the project's duration, and remove upon completion of all work.

3.B MATERIAL

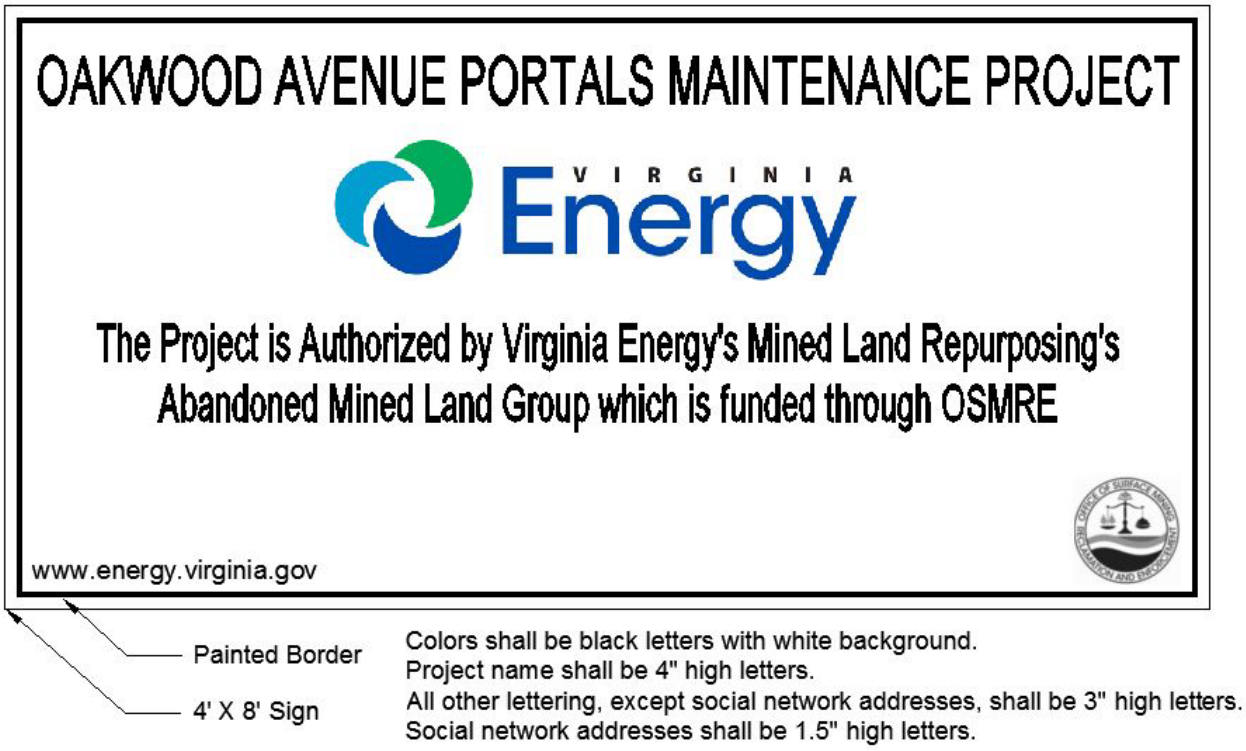
3.B.i Sign: The sign shall be no smaller than 4' x 8' and shall consist of exterior type plywood at least ½" in thickness and mounted on posts appropriate for the specific site. Metal of at least 12-gauge thickness may be substituted for plywood.

3.B.ii Paint: The sign shall be painted with at least two coats of paint, one of which shall be a primary coat. The paint shall be a quality enamel exterior type comparable to that used in the area for commercial exterior signs. The paint color shall be a white background with black letters. Letters shall be plain block letters that are 3" high. The Project Name letters shall be 4" high.

3.B.iii Posts: Posts shall be 4" x 4" treated wooden posts of a sufficient length to be firmly set 3 feet into the ground and still achieve a height to be visible from the public access road. The sign shall be mounted on the posts to ensure the bottom of the sign is a minimum of 3 feet off the ground.

3.C PROCEDURE

The sign shall read as follows:



3.D MEASUREMENT AND PAYMENT

3.D.i Measurement: PROJECT SIGN shall be considered a part of Mobilization.
3.D.ii Payment: Payment for the PROJECT SIGN shall be included in Mobilization.

4. EROSION & SEDIMENTATION CONTROL

4.A SCOPE

This item shall consist of furnishing, maintaining and removing temporary silt fence, culvert inlet protection, and diversion as detailed on the Construction Drawings, and as directed by the Inspector around the work area. **Silt fence, culvert inlet protection, and diversion shall be maintained as necessary to prevent erosion from the project site.**

4.B MATERIALS

4.B.i Silt Fence

Silt Fence filter fabric shall be Terra Tex SD-F made by Hanes Geo Components or equivalent, and shall be specifically recommended for this purpose by the manufacturer and shall meet or exceed the following specifications:

U.V. Resistance (ASTM D-4355)	80%
Grab Tensile (ASTM D-4632)	125 lbs
Permittivity (ASTM D-4491)	0.1 sec^{-1}
Flow Rate (ASTM D-4491)	8 gpm/ft^2

Silt Fence posts shall be either timber stakes (2" x 2" min.) or pressed steel stakes set plumb and to sufficient depth to provide a sound anchor for the supporting wire fence and/or filter fabric.

4.C INSTALLATION

Silt fence shall be placed at all necessary locations to prevent erosion and as approved by the Inspector. Vertical wood posts shall be protected by means of a metal cap or other device to prevent damage when hammers are used to drive the posts into the ground.

4.D MAINTENANCE

Silt fences and V-Shaped Diversion shall be maintained in a functionally sound condition and accumulations of silt shall be promptly removed each day. Following the usefulness of each structure, it shall be removed and disposed of in an approved location.

4.E MEASUREMENT AND PAYMENT

4.E.i Measurement: SILT FENCE shall be measured on a Linear Foot basis for the length of sediment control actually installed, maintained, removed, and accepted by the Agency.

4.E.ii Payment: Payment for SILT FENCE shall be based upon the Linear Feet accepted and approved by the Agency and the Unit Price listed in the Bid Schedule. Payment as specified shall be full compensation for all labor, materials, equipment and incidentals required to install, maintain and remove the items specified.

5. AGGREGATE

5.A SCOPE

This item shall consist of the preparation, haulage, and placement of aggregate stone on the site.

5.B MATERIAL

5.B.i VDOT Gabion Stone as specified in Section 204 of the VDOT Road and Bridge Specifications.

5.B.ii VDOT No. 57 Stone as specified in Section 203 of the VDOT Road and Bridge Specifications shall be used as backfill material for the underdrains. See Specification 6 - Underdrain.

5.B.iii VDOT No. 1 Stone as specified in Section 203 of the VDOT Road and Bridge Specifications.

5.B.iv VDOT No. 21A Stone as specified in Section 208 of the VDOT Road and Bridge Specifications.

5.C PROCEDURE

5.C.i Aggregate shall be transported and handled to prevent dirt and debris from entering the stone; and to prevent spalling and breakage of the stone.

5.C.ii Aggregate shall be placed according to Construction Drawings and as directed by the Project Inspector.

5.D MEASUREMENT AND PAYMENT

5.D.i Measurement: Measurement for AGGREGATE shall be on a per Ton basis for the type and amount of aggregate delivered and installed. Weight tickets shall be submitted as documentation for payment. Tickets shall include the total weight of the truck empty and loaded and the net stone weight, the name of the project, date, and type of stone.

5.D.ii Payment: Payment for AGGREGATE shall be on a Unit Cost basis for the type and amount of aggregate delivered and accepted by the Agency and the Unit Price listed on the Bid Schedule. Payment shall be full compensation for all labor, equipment, materials and incidentals required to perform the work.

6. UNDERDRAIN

6.A SCOPE

This item shall consist of providing materials and labor necessary for the installation of multiple underdrains and conducting necessary quality assurance measures to ensure positive drainage toward the resident stream as shown on the plan sheets. This item also includes the maintenance and/or replacement of any existing drainage structures from the resident home that are displaced during excavation.

6.B SUBMITTALS

Prior to beginning excavation for drain installation, the contractor shall submit a construction sequence plan detailing the order that specific tasks will take place. The focus of the construction sequence plan should be to prevent equipment from tracking / operating over installed drains. Agency approval of the construction sequence plan is required before beginning to install the drain.

6.C MATERIAL

6.C.i Pipe: 4-inch Schedule 40 polyvinyl chloride (PVC) perforated pipe.

6.C.ii Pipe: 6-inch Schedule 40 polyvinyl chloride (PVC) perforated pipe.

6.C.iii Geotextile Fabric: The geotextile fabric used for lining the drain shall be a polypropylene nonwoven geotextile with a grab tensile strength of 120 pounds and a grab tensile elongation of 50 percent. An equivalent that meets this requirement is a **Mirafi 140N**.

6.C.iv VDOT No. 57 Stone as specified in Section 203 of the VDOT Road and Bridge Specifications.

6.C.v Damp Proof Foundation Coating shall be an asphalt based coating intended for damp proof protection on concrete foundations as specified in Section 213 of the VDOT Road and Bridge Specifications.

6.C.vi Topsoil: The soil present at the site is anticipated to be saturated and of poor quality for backfill purposes, final grading shall be done with borrow topsoil capable of supporting quality vegetative (grass) growth in the lawn area. Topsoil used for the project must be approved by the Project Inspector before installation.

6.C.vii White Landscaping Rock (1-in to 2-in average diameter).

6.D PROCEDURE

6.D.i UNDERDRAIN TYPE 1

Trench excavation for the underdrain shall be completed to a sufficient length and width to allow for forms, bracing and supports, if necessary to prevent sidewall collapse. The Contractor shall furnish and place such supports, should they be required by subsurface conditions, depth, inclement weather, etc., and subsequently remove such support material.

Excavation beyond the required lines and grades shall be corrected at the Contractors expense by filling any resulting voids with compacted soil or compacted VDOT No. 26 stone (crusher run).

Following excavation of the trench, the trench bottom shall be hand worked to a smooth and even surface, free of depressions or high spots. All Underdrains are to have a minimum slope of 1.0%. See Specification **No. 9 – SURVEY** for further details. Place the filter fabric along the bottom and sides of the graded trench, leaving enough slack for overlapping on top as per the Drawings.

Place the pipe and fill the underdrain trench with stone as per the Drawings, with care being taken to not puncture the filter fabric or crush the pipe. Place the stone in 4” to 6” lifts. When enough stone has been added as detailed in

the Drawings, and the filter fabric overlapped, the trench shall be promptly backfilled with topsoil as per the Drawings. Excavated material that is saturated and determined unfit for backfill shall be hauled to an offsite disposal area approved by the Agency. Excess material that cannot be filled back into drain trenches, or evenly spread over the adjacent ground shall be hauled to an offsite disposal area approved by the Agency.

Connect **Drain 1** and **Drain 3** (See Drain Schedule) to the existing underdrain pipe with a Tee shaped fitting. Location of the existing underdrain pipe on the construction drawings is approximate. Existing drain locations need to be confirmed in the field by the Contractor. Replace any existing pipe damaged during exposure and connecting with new six (6)-inch perforated PVC pipe.

Seed and mulch all disturbed areas according to Spec **No. 12 – REVEGETATION**. Disturbed lawn areas shall be dragged and fine graded (with hand tools if necessary), smoothing out the finish grade; minimizing ruts, lumps, and rough ground left behind on the lawn.

6.D.ii UNDERDRAIN TYPE 2

Excavate UNDERDRAIN TYPE 2 trench in accordance with the UNDERDRAIN TYPE 1 procedure specification. Following excavation of the trench, the trench bottom shall be hand worked to a smooth and even surface, free of depressions or high spots. All Underdrains are to have a minimum slope of 1.5%. See specification **No. 13 – Survey** for further details. Place the filter fabric along the bottom and sides of the graded trench up to the surface on each side.

Place the pipe and fill the underdrain trench with stone as per the Drawings, with care being taken to not puncture the filter fabric or crush the pipe. Place the stone in 4” to 6” lifts. Excavated material shall be hauled to an offsite disposal area approved by the Agency.

6.D.iii FOUNDATION DRAIN

Disconnect and temporarily move the outside HVAC units to a location on site, away from equipment and work. Disconnecting of all HVAC pipelines and cables is to be completed by personnel holding a HVAC contractor license in the Commonwealth of Virginia.

Demolish/remove sidewalk and patio. See Spec **No. 7 – SIDEWALK AND PATIO** for further details.

Initiate trench excavation with hand tools to locate and confirm the foundation/footer depth and dimensions. A minimum of three (3) footer location spots are to be dug with hand tools along the length of the house. Watchful caution must be taken during trench excavation to prevent damage from being done to the house foundation/footer. ANY damage done to the house foundation/footer during work procedure will be corrected at the Contractor’s own expense. Contractor will NOT excavate any material closer than **six (6) inches** away from the outer most extremity of the footer using machinery or construction equipment. Hand tools must be used to remove material in the trench six (6) inches and closer to the footer. Complete the trench excavation in accordance with the UNDERDRAIN TYPE 1 procedure specification.

Remove any remaining dirt remedies from the footer/foundation wall with brushes and water. Use care not to saturate the trench bottom while cleaning off the wall and footer. Apply at least two coats of damp proof foundation coating with brush, roller, or spray according to the manufacturer’s recommendations and Section 417 of the VDOT Road and Bridge Specifications. The damp proof coating will be applied from the ground surface down to the bottom of the trench. Allow damp proof coating to dry based on manufacturer’s recommendations. Apply a second coat of damp proof foundation coating. Allow to dry.

Install the filter fabric, pipe, and stone in accordance with the UNDERDRAIN TYPE 1 procedure specification and the FOUNDATION DRAIN Detail Drawing.

Reinstall HVAC Units over the backfilled drain trench. Reconnecting of all HVAC pipelines and cables is to be completed by personnel holding a HVAC contractor license in the Commonwealth of Virginia.

6.E MAINTENANCE

If any drainage structure installed by the Contractor becomes damaged or clogged with sediment or debris during the span of the project, it shall be cleaned, repaired, or replaced by the contractor at no additional cost to the Agency.

6.F MEASUREMENT AND PAYMENT

6.F.i Measurement: Measurement for UNDERDRAIN shall be on the basis of linear foot of the trench bottom where drain pipe is installed and accepted by the Agency.

6.F.ii Payment: Payment for UNDERDRAIN shall be on a Unit Cost basis for the actual length along the trench bottom and the Unit Price listed on the Bid Schedule. Payment shall be full compensation for all labor, equipment, materials, and incidentals required to perform the work. **Payment for all aggregate shall be included in Section 5 AGGREGATE.**

7. SIDEWALK AND PATIO

7.A SCOPE

This specification covers the construction activities, equipment, and accessories necessary to reconstruct the private concrete sidewalk and patio located at 325 Oakwood Avenue.

7.B MATERIAL

7.B.i Concrete: Concrete shall be Class A3 General Use (3,000 psi) as specified in Section 217 of the VDOT Road and Bridge Specifications.

7.B.ii Aggregate Base Material: VDOT No. 57 Stone as specified in Section 203 of the VDOT Road and Bridge Specifications.

7.B.iii Welded Wire Fabric: Welded wire reinforcement shall be as specified in Section 223 of the VDOT Road and Bridge Specifications.

7.B.iv Curing Materials: Concrete Curing Materials shall be as specified in Section 220 of the VDOT Road and Bridge Specifications.

7.B.v Slump Test Material:

a) Slump cone: A frustum of a cone, 12 inches of height. The base is 8 inches in diameter and it has a smaller opening at the top of 4 inches.
b) Scoop: Large enough to get a representative scoop of concrete and small enough not to spill any concrete on the ground.
c) Slump Plate: Must have a clean, level surface with no gouges, grooves, or indentations. Must be larger than the diameter of the slump cone.
d) Measurement ruler or tape
e) Temping Rod: Standard 5/8 inch diameter steel rod, rounded at the end.

7.C PROCEDURE

7.C.i General: All concrete construction shall conform to the applicable requirements of Section 404 of the VDOT Road and Bridge Specifications.

7.C.ii NO concrete construction shall begin until the placement of the Foundation Drain is complete and no equipment is further needed along the sidewalk or patio areas.

7.C.iii Demolition and Subgrade Preparation:

a) The existing sidewalk and patio shall be demolished as shown on the construction drawings to excavate the trench for the Foundation Drain. Material shall be taken to Wise County Blackwood Landfill.
b) The subgrade shall be excavated down to allow for the placement of the aggregate base material and concrete. The excavated depth shall be sufficient so that the top of the concrete is level with the existing lawn grade.
c) Excavate the subgrade path to a width that allows Forms to be placed at the desired width of the concrete.
d) Place the Aggregate Base Material to minimum 4” depth along the full width of the subgrade path.

7.C.iv Forms:

a) Forms shall be made of wood or metal, and shall be straight and of sufficient strength to resist springing or other displacement during the process of depositing and consolidating the concrete.
b) The forms shall be placed on top of the base layer to the desired width and depth (4”) of the concrete.
c) The forms shall be set to the proper line and grade and staked in position and shall be sufficiently tight to

prevent leakage.

7.C.v Reinforcing Wire:

a) Reinforcing wire shall be stored on supports that will keep the wire above ground, well drained and protected from deformation.
b) Clean reinforcement of loose rust and mill scale, earth, ice and other materials that reduce or destroy bond with concrete.
c) Accurately position, support and secure reinforcement against displacement by formwork, construction, or concrete placement operations. Locate and support reinforcing metal chairs, runners, bolsters, spacers and hangers, as required.
d) Place reinforcement to obtain 2 inch bottom, 2 inch top minimum cover over the steel. Arrange, space, and securely tie wire and wire supports to hold reinforcement in position during concrete placement operations. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces.

7.C.vi Slump Test (ASTM C143): During the placement of concrete, the consistency shall be checked twice using the slump cone method. One test shall occur prior to the placement of any concrete with a desired slump range of 3-5 inches. A second test shall occur at the end of placement with the value varying 1 inch or less from the first test.

a) Moisten the surface of the slump plate and the inside of the slump cone with water to keep concrete from sticking to it.
b) The cone base is placed on a smooth surface and the container is filled with concrete in three layers, whose workability is to be tested.
c) Each layer is temped 25 times with the rod upon filling.
d) When the mold is completely filled with concrete, the top surface is struck off (leveled with the cone top opening) by means of screening and rolling motion of the temping rod.
e) The cone must be firmly held against its base during the entire operation so that it could not move due to the pouring of concrete and this can be done by means of handles or foot - rests brazed to the mold.
f) Immediately after filling is completed and the concrete is leveled, the cone is slowly and carefully lifted vertically, an unsupported concrete will now slump.
g) The decrease in the height of the center of the slumped concrete is called slump.
h) The slump is measured by placing the cone just beside the slump concrete and the temping rod is placed over the cone so that it should also come over the area of slumped concrete.
i) The decrease in height of concrete to that of mold is noted with scale (usually measured to the nearest ¼ inch).

7.C.vii Concrete Placement: Prior to placing concrete, reinforcing wire shall be inspected. Place concrete using any approved method including direct chute from truck, crane and bucket, and pumping. During placement the Contractor shall:

a) Thoroughly moisten the foundation immediately prior to concrete placement.
b) Deposit and consolidate concrete in one continuous operation.
c) Consolidate concrete during placing operations so that concrete is thoroughly worked around reinforcement and other embedded items and into corners. Concrete shall be spaded adjacent to forms to prevent a honeycomb appearance on the finished work. The surface shall be smoothed with a wooden float to produce a surface free from irregularities.
d) Before the mortar has set the surface shall be steel trowled (Hand or Fresno), jointed and surface roughened by use of a brush, broom, or other suitable tool.
e) Maintain reinforcing in the proper position during concrete placement operations.

When air temperature has fallen to or is expected to fall below 40 degrees Fahrenheit, uniformly heat all water and aggregates before mixing as required to obtain a concrete mixture temperature of not less than 50 degrees Fahrenheit, and not more than 80 degrees Fahrenheit at point of placement.

When hot weather conditions exist that would seriously impair the quality and strength of concrete, cool ingredients before mixing to maintain concrete temperature at time of placement below 90 degrees Fahrenheit.

Mixing water may be chilled, or chopped ice may be used to control the concrete temperature, provided the water equivalent of the ice is calculated to the total amount of mixing water. Cover reinforcing steel with water soaked burlap if it becomes too hot, so that the steel temperature will not exceed the ambient air temperature immediately before embedment in concrete.

7.C.viii Control Joints:

a) Joints shall be made transversely and at right angles to the centerline of the walk at intervals so that the resultant squares or rectangles shall be of equal width (Approx. 4'-6' Rectangles).
b) No joint shall deviate more than 5 degrees from a position perpendicular to the surface of the finished sidewalk or patio nor shall the axis of any joint deviate more than ½" either way from a straight line.

7.C.ix Removal of Forms and Backfill:

a) Forms shall not be removed until the concrete has set for at least 24 hours. Replacement of fill back of the completed sidewalk and patio shall be done as soon as possible after forms are removed to avoid hazards and personal injury, liability for which the contractor is responsible.
b) In areas where yards are developed, backfill must be of topsoil adapted to the sustenance of plant life.

7.D MEASUREMENT AND PAYMENT

7.D.i Measurement: Measurement for SIDEWALK AND PATIO shall be on a cubic yard basis of concrete placed for all the work accepted and approved by the Agency.

7.D.ii Payment: Payment for SIDEWALK AND PATIO shall be based upon the Unit Price listed on the Bid Schedule. Payment as specified shall be full compensation for all labor, materials, reinforced wire, aggregate base material, curring materials, equipment and incidentals necessary to complete the work. No separate payment shall be made for demolition, as that is considered incidental to this portion of the work.

8. GRASS-LINED DITCH

8.A SCOPE

This item shall consist of excavating and forming the grass-lined ditches as detailed in the Construction Drawings along with general grading and earthwork of the adjacent area. The grass-lined ditch shall be established with erosion control matting to facilitate vegetation growth.

8.B MATERIAL

Erosion Control Matting: The erosion control blanket shall consist of a machine-produced blanket of natural fibers. The blanket thickness shall be consistent and evenly distributed over the entire area of the blanket. The mulch blanket shall have both sides covered with an extra heavy-duty plastic netting, which is photodegradable and a mesh opening of approximately ¾" x ¾". Acceptable products for this application shall be Enkamat 7020W matting or equivalent products. Any material used shall be approved by the Agency prior to application and installed according to the manufacturer's recommendations.

8.C PROCEDURE

Excavate ditches to the dimensions shown on the Ditch Schedule of the Construction Drawings. Actual alignment and grade shall be determined in the field by the Contractor and Project Inspector. The grade does not have to be uniform, but must avoid low places that will result in water standing in the ditch. Install erosion control matting according to the manufacturer's recommendations. Revegetate all disturbed areas.

8.D MEASUREMENT AND PAYMENT

8.D.i Measurement: Measurement for GRASS-LINED DITCH shall be on a Linear Foot basis for the slope length of excavation performed.

8.D.ii Payment: Payment for GRASS-LINED DITCH shall be on a Unit Cost basis for the actual length of work performed and the Unit Price listed on the Bid Schedule. Payment shall be full compensation for all labor, equipment, materials and incidentals required to perform the work.

9. RIPRAP DITCH

9.A SCOPE

This item shall consist of providing riprap-lined ditch as shown in the Drawings.

9.B MATERIAL

9.B.i Filter Fabric shall be woven geotextile manufactured for use as a channel lining. Minimum specifications shall be as follows:

Property	Test Method	Value
Grab Strength	ASTM D-4632	400 x 250 lbs
Burst Strength	ASTM D-3786	500 psi
Equivalent Opening Size	ASTM D-4751	70 – 100 sieve

Typical commercial products are Mirafi 700X, Exxon GTF 400E, Supac 6WM or equivalents.

9.B.ii VDOT Gabion Stone shall be used as the stone lining as specified in Section 204 for coarse aggregate of the VDOT Road and Bridge Specifications.

9.C PROCEDURE

Excavation for the ditch shall be sufficient to place the stone lining to the lines, grades and thicknesses shown on the Construction Drawings. Excavate to remove any debris and sharp corners or changes in direction in the existing flow path of the drainage ditch. The Contractor shall over-excavate the ditch to ensure that the finished ditch dimensions conform to the required channel cross section. The foundation surface shall be smooth and free of depressions, debris and soft or low-density pockets of material.

Do not place the filter fabric and stone shall until the final grade of excavation has been accepted by the Project Inspector. Filter fabric liner shall be placed with the long dimension parallel to the channel. It shall be laid smooth and free of tension, stress, folds, wrinkles or creases. Where laps occur, the up-slope piece shall lie overtop the down-slope piece. Minimum overlap shall be 18 inches.

VDOT Gabion Stone shall be used to line the ditch. Stone shall be placed on the surfaces and to the depths specified. The stone lining shall be constructed to the full course thickness in one operation and in such a manner as to avoid displacement or damage to the underlying geomembrane liner.

The rock shall be delivered and placed in a manner that will insure the lining shall be homogeneous, with the larger rocks uniformly distributed and firmly in contact with each other, and the smaller rocks and spalls filling the voids between the larger rocks.

9.D MEASUREMENT AND PAYMENT

9.D.i Measurement: Measurement for RIPRAP DITCH shall be in units of Linear Feet, rounded off to the nearest foot and measured along the slope of the ditch.

9.D.ii Payment: Payment for RIPRAP DITCH shall be the result of the Unit Price entered on the Bid Schedule and the actual quantity accepted and approved by the Agency. Payment as specified shall constitute full compensation for all labor, materials, equipment and incidentals necessary to complete the work. **Payment for all gabion aggregate shall be included in Section 5 AGGREGATE.**

10. PIPE INLET CLEANOUT

10.A SCOPE

This item shall consist of removal of debris and sediment material from the existing 18" culvert inlet at shown on the Construction Drawings.

10.B MATERIAL

10.B.i VDOT Gabion Stone shall be used to armor the pipe inlet as specified in Section 204 for coarse aggregate of the VDOT Road and Bridge Specifications.

10.C PROCEDURE

Clean the pipe inlet out of all sediment and debris blocking the water flow. Armor the front, sides, and top of the pipe inlet with VDOT Gabion Stone as shown on the Detail Drawings.

10.D MEASUREMENT AND PAYMENT

10.D.i Measurement: Measurement for PIPE INLET CLEANOUT shall be on a per job basis for all work accepted and approved by the Agency.

10.D.ii Payment: Payment for PIPE INLET CLEANOUT shall be based upon the Lump Sum amount on the Bid Schedule. Payment as specified shall be full compensation for all labor, materials, equipment and incidentals necessary to complete the work. **Payment for all aggregate shall be included in Section 5 AGGREGATE.**

11. REGRADING

11.A SCOPE

This item shall consist of incidental excavation, fill and shaping within the designated areas and as directed by the Inspector.

11.B MATERIAL

Material to be regraded shall consist of on-site soil or imported borrow topsoil capable of supporting quality vegetative (grass) growth in the lawn area. Topsoil used for the project must be approved by the Project Inspector before installation.

11.C PROCEDURE

All material for filling the grading area shall come from excavation within the grading area; the Contractor shall incorporate any adjacent areas reasonably necessary to perform the work when directed to do so by the Inspector.

Positive drainage shall be maintained during grading operations. Fill material shall be placed at a moisture content suitable for compaction. Fill that is too wet or too dry for adequate compaction, in the opinion of the Inspector, shall be removed and replaced with material having a satisfactory moisture content.

Slopes shall closely conform to existing gradelines or those established by the Drawings, and shall not vary unless approved by the Agency.

Abrupt surface transitions, pockets, protrusions, windrows or undrained areas shall be eliminated, unless approved to be left by the Agency. Large stones or debris identified as detrimental to seeding shall be removed and disposed of as directed by the Inspector.

11.D MEASUREMENT AND PAYMENT

11.D.i Measurement for REGRADING shall be on a per job basis for all work accepted and approved by the Agency.

11.D.ii Payment for REGRADING shall be based upon the Lump Sum amount on the Bid Schedule. Payment as specified shall be full compensation for all labor, materials, equipment and incidentals necessary to complete the work.

12. REVEGETATION

12.A SCOPE

This item covers the furnishing of all labor, equipment and material for preparing the seedbed, liming, fertilizing, tilling, seeding and mulching on the designated areas. Designated areas encompass all areas and access roads within the project limits.

12.B CERTIFICATION

The Contractor shall certify that all seed, soil amendments and mulch to be used in vegetation operations meet the requirements of these specifications and governing authorities.

12.C MATERIALS

12.C.i Lime: Lime material shall be ground agricultural limestone and shall conform to the minimum Calcium Carbonate Equivalent (C.C.E.) guaranteed by the supplier and approved by the Project Inspector.

a) Application: Lime shall be applied as directed by the Project Inspector prior to final grading (tracking) for incorporation into the soil.

b) Lime Rate: Lime shall be spread at two (2) tons per acre.

c) Lime Analysis: Agricultural limestone applied for seeding shall have a minimum C.C.E. of ninety percent (90%). The supplier shall certify this analysis.

12.D SEEDING

All seeding work shall be performed by the Contractor or licensed subcontractor, approved by the Agency, with demonstrated experience and who has the necessary equipment to complete all operations required. Seeding may be accomplished by the use of a hydroseeder or other methods as approved by the Agency.

12.D.i Seeding Schedule

Upon completion of grading and liming operations, the areas shall be seeded. Areas eroded by rainfall or crusted over shall be repaired prior to seeding.

The Project Inspector shall approve all seeding operation time schedules. It is recommended that the seeding operations be confined between February 15th to June 15th, and September 1st to November 1st to obtain satisfactory results.

There may be some occasions such as during winter or summer months, when some areas may require temporary seeding. The Project Inspector may require these operations when deemed necessary to prevent erosion and sedimentation. Temporary seed mixtures and rates shall be applied during these periods.

12.D.ii Permanent Seed Mixture

Permanent seed mixture and rates are specified below. The Project Inspector shall approve any substitution or adjustments.

Permanent Seed

Name	Lbs. /Acre
Orchard Grass	25
Annual Ryegrass	10
Red Clover	5
Ladino Clover	5
Birdsfoot Trefoil	5
Redtop grass	3
TOTAL	**53**

12.D.iii Temporary Seeding

Temporary seeding mixtures and rates are specified below. The Project Inspector shall approve any substitution or adjustments.

Summer Mixture

Name	Lbs. /Acre
German Foxtail Millet	40
Annual Ryegrass	20
TOTAL	**60**

Winter Mixture

Name	Lbs. /Acre
Annual Ryegrass	20
Cereal Rye	40
TOTAL	**60**

Permanent seed mixtures shall be applied at the first available seeding period on all temporary seeded areas.

12.E FERTILIZER

12.E.i Type / Rate

Fertilizer shall be standard commercial product. The rate of fertilizer applied shall be 300 pounds per acre of 16-27-14 or equivalent. Fertilizer may be applied by mechanical spreader or hydraulically by a hydroseeder. Fertilizer and seed may be applied at the same time with a hydroseeder. Water used in a hydroseeder shall have a pH between 6.0 and 9.0.

12.E.ii Inoculant

All leguminous seed shall be inoculated with inoculant specified for use on that particular seed. The Manufacturer's directions for inoculating seed shall be followed. Inoculants shall be applied at double the manufacturer's rate. Inoculant shall be mixed with legume seed prior to mixing with other seeds. Pre-inoculated legume seed from a supplier may be used.

12.F MULCHING

12.F.i Wood Cellulose or Paper Fiber

Wood cellulose or paper fiber mulch for use with a hydroseeder shall be applied at the rate of 1,500 pounds per acre. This mulch shall be applied along with seed and fertilizer mixtures.

12.F.ii Straw or Hay Mulch

Material for mulching shall consist of dry straw or hay, free of noxious weeds. The mulch shall be reasonably bright in color and shall not be musty, moldy, caked, decayed or very dusty. The application rate for hay or straw shall be 2,000 pounds per acre. Erosion control blanket may be substituted for straw or hay mulch.

12.G LAWN SEED MIXTURE

Lawn seed mixture and rates are specified below. The Project Inspector shall approve any substitution or adjustments.

Permanent Seed

Name	**Lbs. /Acre**
Kentucky Bluegrass	20
Perennial Ryegrass	10
Ladino Clover	5
Red Fescue	15
TOTAL	**50**

12.H MAINTENANCE

Areas reseeded or replanted shall also include construction maintenance areas where vegetation is destroyed due to repair work. Progressive seeding of small project areas shall be required during the complete project. Maintenance work for revegetation shall be reviewed prior to each seeding operation throughout the project and corrective action on prior seeded/planted areas may be required.

The Contractor at his/her cost shall complete revegetation maintenance.

The Agency's Project Inspector shall be required to sample and test the soil on any areas, which fail to support vegetation after one reseeding/replanting by the Contractor or at the end of the guarantee period, whichever is later.

12.I MEASUREMENT AND PAYMENT

12.I.i Measurement: REVEGETATION will be measured in units of Acres.

12.I.ii Payment: REVEGETATION shall be the product of the number of acres seeded and the Unit Price per acre listed on the Bid Schedule. The Unit Price shall include all labor, seed, lime, fertilizer, mulch, equipment and apparatus necessary to complete the work.

12.J REPAIRS

Other provisions of these Contract Documents notwithstanding, disturbances outside the project limits caused by the Contractor shall be seeded in accordance with these specifications at the Contractors expense, under the direction of the Project Inspector.

13. SURVEY

13.A SCOPE

This item shall consist of any surveying or measuring necessary to adequately document the final slope of the bottom of the installed underdrains, and ensure the slope is as specified on the plan sheets. All surveys shall be certified by a Professional Engineer or Certified Land Surveyor licensed in the Commonwealth of Virginia and not currently under contract with the agency. The Professional Engineer or Certified Land Surveyor shall be from a separate, independent business from the Contractor and not in the permanent employment of the Contractor.

13.B PROCEDURE

13.B.i Upon completion of excavating the bottom of the underdrains, the contractor shall conduct measurements necessary to establish the final drain slope. The distance between elevation measurements to confirm the slope shall not be greater than 15 feet.

13.B.ii The purpose of these measurements is to demonstrate that positive drainage will occur from the furthest point of the drain to the outflow.

13.B.iii Establishment of at least two benchmarks for consistency of measurement is required. The location and elevation of all benchmark shall be noted on the agency submittal.

13.B.iv As slope of the channel is the only concern, absolute elevations are not required. Relative or assumed elevations are acceptable. Demonstration of accuracy will be established using a closed level loop through all benchmarks (if more than one is used) and a point within or immediately adjacent to the project limits that is designated by the agency.

13.B.v The agency will notify the contractor of rejection of any section of drain within 24-hours of submittal of the survey data. If the survey data is submitted on a Thursday or the weekend, the agency shall have until 12 pm Monday to provide notification.

13.C SUBMITTALS

13.C.i The contractor shall produce a topographic map of the trench bottom showing both the contour lines and the data points used to create the contours.

13.C.ii The contractor shall furnish **one** certified hard copy and **one** electronic copy of all records to the agency. Contact information for submittal will be provided with the notice to proceed.

13.C.iii It is suggested that submittal of survey data be conducted intermittently throughout the project to identify potential issues with the final slope prior to completion of construction thereby minimizing any potential costs to the contractor for necessary corrective measures. **Do NOT fill in the excavated trench until the submitted survey data are reviewed and approved by the Agency.**

13.C.iv Acceptance of the final survey submittal is required prior to the final payment for both Drain Installation and Aggregate and Stone.

13.D MEASUREMENT AND PAYMENT

13.D.i Measurement: Measurement for SURVEY shall be on a per job basis for all work accepted and approved by the Agency.

13.D.ii Payment: SURVEY shall be based upon the Lump Sum amount on the Bid Schedule. Payment as specified shall be full compensation for all labor, materials, equipment and incidentals necessary to complete the work.

14. CLEAN UP AND REPAIR OF DAMAGE

14.A SCOPE

This item shall consist of cleaning up the site prior to demobilization, repairing damage and guarantee of workmanship.

14.B CLEANING UP

After all construction work is complete, prior to final payment, all exposed areas shall be cleaned and left in an acceptable condition. All unused material shall be removed from the site or otherwise disposed of as directed by the Agency. Any bare areas shall be seeded and treated in accordance with the applicable specification.

14.C REPAIRING DAMAGE

Any damage done to structures, fill, or other areas shall be repaired at the Contractors expense before final payment is made. In the event such damage occurs as a result of instructions from the Agency, payment will be made at the price agreed to by the Contractor and Agency.

Contractor should locate any buried power line, buried water line, buried drain pipe and buried septic lines located in the work area and exercise care in and around these lines. Replacement of any destroyed, functioning power, water or septic line shall be at the contractor's expense.

14.D GUARANTEE

The Contractor shall assume responsibility for all workmanship and materials for a period of time as described in the General Conditions.

14.E MEASUREMENT AND PAYMENT

No separate measurement and payment will be made for CLEANUP AND REPAIR OF DAMAGE. This work shall be considered incidental to Mobilization.

15. QUALITY CONTROL

15.A SCOPE

This item shall consist of testing for verification that the materials supplied and the work performed is in accordance with these specifications.

15.B PROCEDURE

An Affidavit of Payment of Claims and Certification of Materials (DMLR-AML-314) form certifying that all materials meet or exceed the specifications of the Contract shall be completed and submitted with the final Application of Payment. First-class materials conforming to the specifications shall be incorporated into the work. All materials shall be new unless otherwise specified.

15.C PAYMENT

Payment: Payment for QUALITY CONTROL shall be included in the payment for SITE PREPARATION. Payment shall be full compensation for all materials, equipment, labor and incidentals necessary to complete the work.

16. SAFETY PRECAUTIONS

16.A SCOPE

This item consists of the procedures and protocol to be followed to ensure the safety of the public and workers in or around the construction site.

16.B PROCEDURE

16.B.i It shall be the Contractors' responsibility to provide protective clothing and equipment, emergency breathing apparatus, medical supplies and instrumentation for monitoring potentially unhealthy working conditions encountered during construction.

16.B.ii The Contractor shall train all equipment operators, laborers and other personnel of the hazardous or unhealthy conditions which may be encountered during the work, and possible courses of action to be implemented to avoid an accident as required by applicable OSHA and MSHA regulations.

16.B.iii The Contractor shall examine all areas within and adjacent to the project sites for unstable rock, debris, and any other hazards to safety.

16.B.iv In the event of an injury or fatality (from the project's activities), proper notification shall be immediately made to DMLR and, as applicable, to the appropriate office of the Virginia Department of Labor and Industry – Occupational Safety and Health Compliance (OSHA), the Mine Safety and Health Administration (MSHA), and/or the State Fire Marshall.

16.B.v HAZARDOUS AND TOXIC MATERIALS
If hazardous or toxic materials (i.e. PCB's, Asbestos Containing Material (ACM), lead-acid batteries, etc.) are encountered during the work, the Contractor shall immediately notify the Agency. The Department of Environmental Quality guidelines for handling and cleaning up the site shall be followed.

16.C MEASUREMENT AND PAYMENT

There will be no separate payment for this item. If necessary, in the event that the required action will not be incidental to existing pay items, appropriate change orders shall be executed.