

Purchasing Department
P. O. Box 13145 • Roanoke, VA 24031
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March 7, 2025

## INVITATION FOR BID IFB 3182

Notice is hereby given of the intention of the School Board for the City of Roanoke, Virginia ("Owner"), to contract for:

#### PATRICK HENRY HIGH SCHOOL – LOWER PRACTICE FIELD REGRADING AND REHABILITATION

## **Bid Submission Requirements:**

Bids must be received by the Bid Due Date and Time at <a href="mailto:bids.purchasing@rcps.info">bids.purchasing@rcps.info</a>.

Bid Due Date and Time: April 4, 2025; 3:00 P.M.

Bids will be publicly opened and read aloud on April 4, 2025, 3:30 P.M. @ Roanoke City Public Schools Administration Building located at 40 Douglass Avenue NW, Roanoke, VA 24012.

Announcement of Award: Upon the award or the announcement of the decision to award a contract as a result of this Invitation for Bid ("IFB"), the Director of Purchasing will publicly post such notice on the Roanoke City Public School's web site (<a href="https://www.rcps.info/Page/262">https://www.rcps.info/Page/262</a>) (Click on Bids, RFPs, and Cancellations) for a minimum 10 day period.

ROANOKE CITY SCHOOL BOARD

Eric Thornton

Purchasing Director

Electronic Invitation to Bid/RFP Retrieval Instructions:	Full copies of Requests for Proposals, Bids, and Addenda must be
retrieved over the Internet at the following address:	https://www.rcps.info/Page/262.

This Public Body does not discriminate against Faith-Based Organizations

## **TABLE OF CONTENTS**

## **INVITATION FOR BID**

## IFB 3182

## PATRICK HENRY HIGH SCHOOL - LOWER PRACTICE FIELD REGRADING AND REHABILITATION

l.	Purpose	<b>Page</b> 3
II.	Background	3
III.	Scope of Work	3
IV.	Project Requirements	3
V.	Calendar of Events	6
VI.	Pre-Bid Meeting/Site Visit	6
VII.	Submittal Requirements	6
VIII.	General Terms and Conditions	7
IX.	Special Terms and Conditions	10
X.	Additional Forms	13
XI.	Bid Form	20

Exhibit 1 - Aerial View of Work Site

Attachment 1 – Drawings and Specifications

#### IFB 3182

#### PATRICK HENRY HIGH SCHOOL – LOWER PRACTICE FIELD REGRADING AND REHABILITATION

#### I. PURPOSE

The purpose of this Invitation for Bid is for Roanoke City Public Schools ("RCPS", "Owner") to procure a Contractor ("Offeror") to provide all materials and labor for lower practice field regrading and rehabilitation at Patrick Henry High School, located at 2102 Grandin Road SW, Roanoke, VA 24015.

#### II. BACKGROUND

There is a need for regrading and rehabilitation of the lower practice field located at Patrick Henry High School. The total area is approximately 62,260 **square feet**. However, it is the contractor's responsibility to verify the square footage of each area and the total square footage.

#### III. SCOPE OF WORK

RCPS requests Bids from Offerors to provide the most practical, time-effective, and cost-efficient solution for the lower practice field regrading and rehabilitation at Patrick Henry High School (the "Project").

The description of services in this IFB shall establish minimum requirements and expectations. RCPS reserves the right to waive any or all requirements specified herein.

- 1. Provide all labor, materials, equipment, and supervision necessary for the completion of the work described in this IFB. Any and all permits issued by the City of Roanoke or state and federal are required to be included in the lump sum bid.
- 2. Aerial views and details of the Project worksite are available in **Exhibit 1** to this IFB.
- 3. Bids shall be based on the drawings and specifications ("Construction Documents") provided by Caldwell White and Associates dated April 25, 2024 (<u>Attachment 1</u>).
- 4. Construction Documents are available via the Purchasing Department website, <a href="https://www.rcps.info/Page/262">https://www.rcps.info/Page/262</a>, for printing at Bidder's discretion.
- 5. Work on the project site can begin on April 15, 2025, and must be substantially completed by June 30, 2025.

#### IV. PROJECT REQUIREMENTS

All work shall be in accordance with the Construction Documents which are listed in "Event Officials' Parking and Lower Practice Field Regrading – Patrick Henry High School" (Attachment 1).

#### 1. Job Schedule

TIME IS OF THE ESSENCE, and job schedule durations for any given task within the job schedule will not preclude RCPS from requiring the Contractor to furnish additional workmen and/or equipment to the Project at no additional cost to RCPS if, in the opinion of the Architect or RCPS, some tasks

are slipping in duration and insufficient workmen are assigned to the job to finish each task on time or early. The contractor shall direct and coordinate all work performed by his forces and those of any subcontractors in his employ to assure the orderly and timely completion of the work. The work on the project can start after a formal agreement is reached.

Substantial Completion for IFB 3182 must be achieved no later than June 30, 2025. If the Contractor is unable to achieve Substantial Completion for the project by June 30, 2025, the Contractor shall pay to the Owner, not as a penalty, however as liquidated damages for breach of Contract, one thousand dollars (\$1,000) per calendar day. Substantial completion means the project, or a portion of the project, is fit for its intended use as a practice field once the field turf has been completed and established.

\*The Owner will consider any request made by the Contractor to extend the Contractor's time for performance of the work and may grant reasonable time extensions when delays in the Contractor's work performance are directly caused by supply chain delays, if the Contractor has provided the Owner with (i) reasonable notice in advance that its work is being impacted by supply chain delays; (ii) adequate verification to support the Contractor's claim; and (iii) written certification that any delay in its performance of this Contract is beyond the Contractor's control and not the result of actions or any failure to act by the Contractor.

#### 2. Clean Up

During the course of construction, the Contractor shall maintain the Project in a clean and orderly condition and shall remove waste materials from the Project. In addition to any specific directions from the Owner, a daily clean-up is a mandatory requirement throughout the course of the Project. If Contractor fails to clean up daily, after being warned by the owner, at the weekly meeting or in writing, and after the passage of 24 hours, RCPS will perform the necessary clean-up and the cost of this clean-up will be deducted from future payments due the Contractor at the rate of \$45 per man-hour, or the actual cost of clean-up, plus 15%, whichever is higher, and/or may charge a daily fine of \$100.00 per day until the clean-up is complete. Upon completion of the Work under the Contract, the Contractor shall remove from the Project all temporary structures, debris, and waste incident to its operation and clean all surfaces, fixtures, equipment, etc., related to the performance of the Contract. If the Contractor fails to perform this final clean-up within two (2) working days, or sooner if required for safety and/or health reasons, after notification by the Architect to do so, RCPS will perform the necessary clean-up and the cost of this clean-up will be deducted from future payments due the Contractor at the rate of \$45.00 per man-hour, and/or \$1,000.00 per day until the clean-up is complete.

## 3. Safety

Contractor shall, at its own expense, conform to any basic safety policy of RCPS, and shall comply with all applicable Federal, State or Local safety rules, standards, regulations and record keeping requirements. If Contractor fails to remedy noted safety issues daily, after being warned by the Architect, at the weekly meeting or in writing, and after the passage of 24 hours, RCPS will perform the necessary safety work and the cost of this work will be deducted from future payments due the Contractor at the rate of \$45 per man-hour, or the actual cost of the work plus 15%, whichever is higher, and/or may charge a daily fine of \$1,000.00 per day until the work is complete. Contractor shall inform all of his employees of any RCPS's policy on safety and that all safety-related policies and regulations should be implemented. Contractor agrees to defend and to be solely responsible for all citations, assessments, fines, or penalties which may be received or incurred by reason of

Contractor's failure or the failure of the Contractor's agents, employees, suppliers or subcontractors to comply with safety standards, rules, regulations and requirements.

#### 4. Coordination of its Work with Others

The Owner may award separate contracts for performance of certain other construction operations during this contract. Those operations may be scheduled to take place while work under this Contract is under way. The Contractor shall coordinate with the Owner and his direct contractors so that all work can be completed in a timely and efficient manner.

#### 5. Bonds

The following bonds are required for construction projects over \$100,000:

- 1. A bid bond <u>must</u> be submitted with each bid as a guarantee that if the contract is awarded to the Offeror, Offeror will enter into the contract for the work stated in the IFB. Bids not accompanied by a bid bond will be rejected.
- 2. A performance bond to assure strict conformity to plans and specifications.
- 3. A payment bond to assure payment of labor and materials to suppliers and subcontractors.
- 4. Contractor is to be responsible for payment of all bonds relating to work quality, erosion control, permits/fees to reviewing agencies as needed.

## 6. Contractor agrees as follows:

- A. Contractor shall cooperate with the RCPS and all others whose work may Interface or interfere with Contractor's Work; before proceeding with Contractor's Work, or any portion thereof, Contractor shall review all job conditions and thoroughly inspect all prior Work of previous Contractors and others. Contractor shall notify the Architect and RCPS, in writing, of any unacceptable conditions, interferences or defective prior Work that would affect the proper and timely execution of Contractor's Work. Unless such notice is given, Contractor shall be deemed to have fully accepted the conditions as they exist and shall be fully responsible for any and all expenses, losses or damages resulting from said conditions; unless, such conditions as would affect the Contractor's work are not reasonably discoverable by Contractor's inspection.
- B. Contractor recognizes that the Job Schedule requires coordination with other trades and agrees to coordinate Contractor's Work with the work of others including work by the Owner's forces or separate contractors. Contractor recognizes that Contractor's Work may not always be performed as a continuous operation.
- C. Contractor shall participate in scheduling meetings to coordinate interrelated and interfacing work of the various Contractors. Should Contractor install any portion of Contractor's Work prior to coordination or in such a manner as to cause interference with the Work of others, Contractor shall, at its own expense, arrange for its removal or modification, or cutting and patching.
- D. Contractor shall be responsible for taking all field measurements necessary to ensure the proper fitting of Contractor's Work with the Work others. Field measurements shall be taken and coordinated in a timely manner to avoid delaying the Job Schedule.
- E. Contractor shall schedule delivery of all materials and equipment to coincide with installation dates established by the Architect in accordance with the Job Schedule.
- F. Contractor shall immediately notify the Architect, in writing, of any change in the delivery status of any of Contractor's materials or equipment; however, such change does not relieve Contractor of its obligations to perform its work in accordance with the Contract.

- G. Contractor shall promptly submit shop drawings, drawings, data, and samples in such detail as required in order to carry on Contractor's Work efficiently and at a speed that will avoid delay to the Job Schedule and permit coordination of Contractor's Work with the work of others.
- H. Contractor should provide a schedule of work that coincides with project timeline.
- Contract Incorporation: These terms and conditions are made a part of any resulting contract.

#### V. CALENDAR OF EVENTS

	Date	
Release IFB	03/07/2025	
Non-mandatory pre-bid meeting /site visit	03/14/2025	(9:30 A.M.)
Receive Written Inquiries (no later than) *	03/18/2025	(5:00 P.M.)
Answer Written Inquiries	03/21/2025	(anticipated)
Receive Bids	04/04/2025	(3:00 P.M.)

<sup>\*</sup> Written questions regarding the project may be submitted via e-mail to <a href="mailto:ethornton@rcps.info">ethornton@rcps.info</a>. Answers will be posted to the RCPS website, <a href="https://www.rcps.info/Page/262">https://www.rcps.info/Page/262</a>.

## VI. PRE-BID MEETING/SITE VISIT

A <u>NON-MANDATORY</u> pre-bid meeting/site visit will be conducted March 14, 2025, at 9:30 A.M. at Patrick Henry High School, 2102 Grandin Road SW, Roanoke, VA 24015. Meeting location is the main entrance to stadium.

#### VII. SUBMITTAL REQUIREMENTS

Bids must be submitted on the enclosed Bid Form and signed by an authorized individual of the company.

Bids and all required forms must be received by the Bid Due Date and Time at bids.purchasing@rcps.info.

Bid Due Date and Time: April 4, 2025; 3:00 P.M.

#### Additional Information:

- Requests for any additional information should be directed to Eric Thornton, Director of Purchasing, at (540) 853-1348. All answers to questions will be posted on the RCPS website at <a href="https://www.rcps.info/Page/262">https://www.rcps.info/Page/262</a>.
- 2. All information concerning scheduling of this project and any issues or concerns that may arise on this project are to be directed to Greg Burgess at (540) 685-5213, or <a href="mailto:gburgess@rcps.info.">gburgess@rcps.info.</a>
- 3. RCPS encourages use of MBE, WBE, SBE, and Local contractors.
- 4. The selected Contractor shall supply a "Certificate of Compliance" for all persons working on the project. This includes, but is not limited to, said contractor's employees and any subcontractor's employees.

#### **VIII. GENERAL TERMS AND CONDITIONS**

- 1. **Taxes:** State sales and use tax certificate of exemption, Form ST-12 will be issued upon request, if you do not have same on file. Deliveries against this proposal shall be free of excise or transportation taxes.
- 2. Mandatory use of RCPS Forms and Terms and Conditions: Failure to submit a proposal on the official forms provided for that purpose shall be a cause for rejection of the proposal. Return of the completed document is required. Modification of or additions to any portion of the solicitation may be cause for rejection of the proposal; however, RCPS reserves the right to decide, on a case-by-case basis, in its sole discretion, whether or not to reject such a proposal as non-responsive. Supplementary data and information which respond to inquiries, demonstrate qualifications and expertise, etc., may be attached to the proposal forms.
- 3. **Precedence of Terms**: Except for Paragraphs 1 and 2 of the General Terms and Conditions for Professional Services, which shall apply in all instances, in the event there is a conflict between the Generals Terms and Conditions for Professional Services and any Special Terms and Conditions used in a particular procurement, the Special Terms and Conditions shall apply.
- 4. **Default**: In case of failure to deliver the reports, documents, or services in accordance with the contract terms and conditions, RCPS, after due oral and written notice, may procure from other sources and hold Vendor responsible for any resulting additional procurement and administrative. This remedy shall be in addition to any other remedies which RCPS may have incurred.
- 5. **Assignment of Contract**: A contract shall not be assignable by the Contractor in whole or in part without the written consent of RCPS.
- 6. **Antitrust:** By entering into a contract, the Offeror conveys, sells, assigns, and transfers to RCPS all rights, title and interest in and to all causes of the action it may now or hereafter acquire under the antitrust laws of the United States and the Commonwealth of Virginia, relating to the particular goods or services purchased or acquired by RCPS under said contract.
- 7. **Ethics in Public Contracting**: By submitting the proposal, all Offerors certify and warrant that their bids are made without collusion or fraud and that they have not offered or received any kickbacks or inducements from any other Offeror, supplier, manufacturer, or subcontractor in connection with their proposal, and that they have not conferred with any public employee having official responsibility for this procurement transaction any payment, loan, subscription, advance, deposit of money, services or anything, present or promised, unless consideration of substantially equal or greater value is exchanged.
- 8. **Anti-Discrimination**: By submitting their proposal, all Offerors certify to RCPS that they will conform to the provisions of the Federal Civil Rights Act of 1964, as amended, as well as the Virginia Fair Employment Act of 1975, as amended, where applicable, and Section 11-51 of the Virginia Public Procurement Act which provides:
  - A. In every contract over \$10,000, the provisions 1 and 2 below apply:

    During the performance of this contract, the contractor agrees as follows:
    - 1. The contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin, except where religion, sex or national origin is a bona fide occupational qualification reasonably necessary to the normal operation of the contractor. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. The contractor, in all solicitations or advertisements for employees placed by or on behalf of the contractor, will state that such contractor is an equal opportunity

- employer. Notices, advertisements, and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.
- 2. The contractor will include the provisions of paragraphs 1, above, in every subcontract or purchase order over \$10,000 so that the provisions will be binding upon each subcontractor or Contractor.
- 9. **Debarment Status:** By submitting a bid, all Offerors certify that they are not currently debarred from submitting bids on contracts by any agency of the Commonwealth of Virginia, nor are they an agent of any person or entity that is currently debarred from submitting bids on contracts by any agency of the Commonwealth of Virginia.
- 10. **Applicable Law and Courts**: Any contract resulting from this solicitation shall be governed in all respects by the laws of the Commonwealth of Virginia and any litigation with respect thereto shall be brought in the courts of the Commonwealth. The contractor shall comply with applicable federal, state, and local laws and regulations.
- 11. Asbestos: Comply with applicable Federal, State and Local regulations
  - A. Asbestos Hazard Emergency Response Act (AHERA) regulations contained in 40 CFR 763. Title 29, Code of Federal Regulations, Section 1910.134, 1910.1001, 1910.1200, 1926.58, and 1926.1101 of the Occupational Safety and Health Administration (OSHA), US. Department of Labor.
  - B. Title 40, Code of Federal Regulations, EPA workplace guidelines include those pertinent sections of part I and II, EPA Guideline document 560/5-S5-024, "Guidance for Controlling Asbestos Containing Materials in Buildings".
  - C. All State, County, and City codes and ordinances as applicable.

Air sample certification shall be provided prior to substantial completion indicating levels are with the recommendations per local, state, and federal levels for schools.

- 12. **Lead:** Comply with applicable Federal, State and Local regulations
  - A. Title 29, Code of Federal Regulations (CFR), Occupational Safety and Health Administration (OSHA), U.S. Department of Labor:
    - 1910 General Industry Standards
    - 1910.1025 Lead Standard for General Industry
    - 1910.134 Respiratory Protection
    - 1910.1200 Hazard Communication
    - 1910.245 Specifications for Accident Prevention (Sign and Tags)
    - 1926.62 Lead Exposure in Construction
  - B. Title 40, CFR Part 50, Appendix G, National Ambient Air Quality for Lead.
  - C. ASTM-American Society for Testing Materials.
  - D. ANSI Z288.2.8 Practices for Respiratory Protection.
  - E. ANSI Z9.2 1979 Fundamentals Governing the Design and Operation of Local Exhaust systems.
  - F. United States Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-Based Paint in Housing, revised, October, 1997.
  - G. Code of Virginia, Lead-Based Paint Activities VAC 15-30-650.
  - H. Virginia Department of Environmental Quality, Hazardous Waste Management regulations 9VAC 20-60-10 thru 1480.
  - I. USEPA 40 CFR Part 260 Hazardous waste management system.

- J. USEPA 40 CFR Part 261 Identification and listing of hazardous waste.
- K. USEPA 40 CFR Part 262 Standards applicable to generators of hazardous waste.
- L. USEPA 40 CFR Part 263 Standards applicable to transporters of hazardous waste.
- M. USEPA 40 CFR Part 264 Standards for owners and operators of hazardous waste treatment, storage, and disposal facilities.
- N. USEPA 40 CFR Part 265 Interim status standards for owners and operators of hazardous waste treatment, storage, and disposal facilities.
- O. USEPA 40 CFR part 266 Standards for the management of specific hazardous wastes and specific types of hazardous waste management facilities.
- P. USEPA 40 CFR Part 267 Interim standards for owners and operators of new hazardous waste land disposal facilities.
- Q. USEPA 40 CFR Part 268 Land disposal restrictions.
- R. USEPA 40 CFR Part 269 EPA administered permit programs: The Hazardous Waste Permit program.
- S. USEPA 40 CFR Part 270 Requirements for authorization of state Hazardous waste Programs.
- T. USEPA 40 CFR Part 270 Approved State hazardous waste management programs.

Air sample certification shall be provided prior to substantial completion indicating levels are with the recommendations per local, state, and federal levels for schools.

- 13. Qualifications of Offerors: RCPS may make such reasonable investigations as deemed proper and necessary to determine the ability of the Offeror to perform the work and the Offeror shall furnish to RCPS all such information and data for this purpose as may be requested. RCPS reserves the right to inspect Offeror's physical plant prior to award to satisfy questions regarding the Offeror's capabilities. RCPS further reserves the right to reject any proposal if the evidence submitted by, or investigations of, such Offeror fails to satisfy RCPS that such Offeror is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein.
- 14. **Anti-Collusion Certification**: By signing the proposal, the Offeror certifies that the proposal is made without prior understanding, agreement, or connection with any corporation, firm or person submitting a proposal for the same materials, supplies, or equipment, and is in all respects fair and without collusion or fraud. The Offeror understands that collusive bidding is a violation of the Virginia Governmental Frauds Act and Federal Law and can result in fines, prison sentences, and civil damage awards. The Offeror agrees to abide by all conditions of the proposal and certifies that the individual signing the proposal is authorized to do so.
- 15. **Payment Terms**: Any payment terms requiring payment in less than 30 days will be regarded as requiring payment 30 days after invoice or delivery, whichever occurs last. This shall not affect offers of discounts for payment in less than 30 days.
- 16. **Immigration Reform & Control Act of 1986:** By submitting a proposal, Offerors certify that they do not and will not, during the performance of this contract, employ illegal alien workers or otherwise violate the provisions of the Federal Immigration Reform and Control Act of 1986.
- 17. **Relationship of Contractor to Owner**: After the Contract for services has been fully executed, the Contractor shall be the professional advisor and consultant to the Owner for technical matters related to the project and shall be responsible directly to and only to the Owner. The Owner shall communicate all approvals, rejections, change requirements and other similar information to the Contractor. The Contractor shall advise the Owner of changes necessary to keep the project within the prescribed area and cost limits.

- 18. **Code and Regulatory Compliance**: The Contractor is responsible for designing the project and administering the construction phase of the project in accordance with the Virginia Uniform Statewide Building Code, Roanoke City Building Code, and other regulatory requirements applicable to the project. Nothing contained herein shall be construed as relieving any Contractor, professional design consultant, contractor, supplier, or any other participant from any professional or legal responsibility for performance. Review, comments and approvals by Owner or the staff of RCPS, in no way absolve any other person, firm or corporation involved in a project from their full responsibilities under the applicable laws, codes, and professional practice as required in projects for Roanoke City Public Schools.
- 19. **Contract Incorporation**: These terms and conditions are made a part of any resulting contract.

### IX. SPECIAL TERMS AND CONDITIONS

## 1. Insurance:

Prior to the start of any work under the contract, the Contractor shall provide to RCPS Certificate of Insurance Forms approved by RCPS and maintain such insurance until the completion of all project orders issued under the contract. The minimum limits of liability shall be:

- A. <u>Workers' Compensation</u>. Workers' Compensation insurance covering Contractor's statutory obligation under the laws of the Commonwealth of Virginia and Employer's Liability insurance shall be maintained for all its employees engaged in work under this Agreement.
- B. <u>Automobile Liability</u>. The minimum limit of liability for automobile liability insurance shall be \$1,000,000 combined single limit applicable to owned or non-owned vehicles
- C. <u>Commercial General Liability Broad Form</u> insurance shall insure against all claims, loss, cost, damage, expense, or Contractor's performance under this contract. The minimum limits of liability for this coverage shall be \$2,000,000 combined single limit for any one occurrence.
- 2. **Audit**: The Offeror agrees to retain all books, records, and other documents relative to this contract for five (5) years after final payment, or until audited by RCPS. RCPS shall have full access to and the right to examine any of said materials during said period.
- 3. **Termination of Contract**: RCPS reserve the right to cancel and terminate any resulting contract, in part or in whole, without penalty, upon 60 days' written notice to the Contractor. Any contract cancellation notice shall not relieve the contractor of the obligation to deliver any outstanding orders issued prior to the effective date of cancellation.
- 4. **Modification of Contract**: RCPS may, upon mutual agreement with the Offeror, issue written modifications to the statement of needs as a part of this contract, except that no modifications can be made which will result in an increase of the original project order contract price by \$50,000 or a cumulative amount of more than 25%, whichever is greater, without the advance written approval of the Superintendent or Superintendent's designee. In making any modification, the resulting increase or decrease in cost for the modification shall be determined by one of the following methods as selected by RCPS in accordance with the requirements of the Public Procurement Act.
- 5. Ownership of Materials: Ownership of all data, materials, and documentation originated and prepared for the Roanoke City School Board pursuant to the proposal shall belong exclusively to the Roanoke City School Board and be subject to public inspection in accordance with the Virginia Freedom of Information Act. Trade secrets or proprietary information submitted by the Offeror shall not be subject to public disclosure under the Freedom of Information Act, unless otherwise required by law or a court; however, the Offeror must invoke the protection of Section 2.2-4332(F) of the Code of Virginia, in writing, either before or at the time the data or other material is submitted. The written notice must SPECIFICALLY identity the data or materials to be protected

- and state the reason why protection is necessary. The proprietary or trade secret material submitted must be identified by some distinct method such as highlighting or underlining and must indicate only the specific words, figures, or paragraphs that constitute trade secret or proprietary information. The classification of an entire Bid document, line-item prices, and/or total proposal prices as proprietary, or trade secrets, is NOT ACCEPTABLE and may result in REJECTION of the bid.
- 6. **Subcontracts**: No portion of work shall be subcontracted without prior written consent of RCPS. In the event the Contractor desires to subcontract some or part of the work specified herein, the Contractor shall furnish RCPS the names, qualifications, and experience of their proposed subcontractors. The Contractor shall, however, remain fully liable and responsible for the work done by the subcontractor(s) and shall assure compliance with all contract requirements.
- 7. **Indemnification**: The contractor agrees to be responsible for, indemnify, defend and hold harmless RCPS, its officers, agents and employees from the payment of all sums of money by reason of any claim against them arising out of any and all occurrences resulting in bodily or mental injury or property damage that may happen to occur in connection with and during the performance of the contract, including but not limited to claims under the Workers' Compensation Act. The contractor agrees that it will, at all times, after the completion of the work, be responsible for, indemnify, defend, and hold harmless RCPS, its officers, agents and employees from all liabilities resulting from bodily or mental injury or property damage directly or indirectly arising out of the performance or nonperformance of the contractor.
- 8. **Proposal Acceptance Period**: Any proposal resulting from this solicitation shall be valid for 30 days. At the end of the 30 days, the proposal may be withdrawn at the "written" request of the Offeror. If the proposal is not withdrawn at that time, it remains in effect until an award is made or the solicitation is canceled. Withdrawal of bids due to error shall be in accordance with Section II-54 (ii), Code of Virginia.
- 9. Late Bids: To be considered for award, bids must be received by Roanoke City Public Schools, Attention Eric Thornton, 40 Douglass Ave NW, Roanoke, VA 24012, by the designated opening date and hour. The official time used in the receipt of bids is that time on the clock located in RCPS Purchasing Department. Bids received after the designated opening date and hour are automatically disqualified and will not be considered. Roanoke City Public Schools is not responsible for delays in the delivery of mail by the U.S. Postal Service, private couriers, or another means of delivery. It is the sole responsibility of the Offeror to ensure that its bid reaches Roanoke City Public Schools Purchasing Department by the designated date and hour.
- 10. Gifts by Offeror, Contractor, or Subcontractor: No Offeror, contractor or subcontractor shall confer on any public employee having official responsibility for a procurement transaction any payment, loan, subscription, advance, deposit of money, services, or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value is exchanged.
- 11. Qualification of Offerors: Roanoke City Public Schools may make such reasonable investigations as deemed proper and necessary to determine the ability of the Offeror to perform the work and the Offeror shall furnish to Roanoke City Public Schools all such information and data for this purpose as may be requested. Roanoke City Public Schools reserves the right to inspect Offeror's physical plant prior to award to satisfy questions regarding the Offeror's capabilities. Roanoke City Public Schools further reserves the right to reject any proposal if the evidence submitted by, or investigations of, such Offeror fails to satisfy Roanoke City Public Schools that such Offeror is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein.

- 12. **Availability of Funds**: It is understood and agreed between the parties herein that the agency shall be bound hereunder only to the extent of the funds available, or which may hereafter become available for the purpose of this agreement.
- 13. **Contract Documents**: The contract entered into by the parties shall consist of the Request for Proposal, the signed proposal submitted by the Contractor, Roanoke City Public Schools Standard Contract form, the General and Special Terms and Conditions, the Statement of Need including all modifications thereof, all of which shall be referred to collectively as the Contract Documents.
- 14. **Rejection of Bids**: The Superintendent or Superintendent's designee, on behalf of the School Board, reserves the right to reject any and all bids.
- 15. **Procedure for Protest:** Any vendor submitting a proposal may protest the award or decision to award a contract by submitting a written protest to the Superintendent, or Superintendent's designee, of the ROANOKE CITY SCHOOL BOARD no later than ten (10) days after the award or the announcement of the decision to award whichever occurs first. The written protest shall include the basis for the protest and the relief sought (Section 2.2-4360, Code of Virginia).
- 16. **Drug Free Workplace**: During the performance of any contract resulting from this solicitation, the contractor agrees to (i) provide a drug-free workplace for the contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in violation of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the contractor that the contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor. For the purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a contractor in accordance with this chapter, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.
- 17. **Tobacco and Nicotine Vapor Products:** Pursuant to School Board Policy KGC, tobacco and nicotine vapor products on RCPS property is prohibited at all times. Contractor shall ensure that its employees, agents, subcontractors, and assigns shall not use or distribute any tobacco products or nicotine vapor products at any time during the performance of this Contract. "Tobacco products" are defined to include cigarettes, cigars, pipe tobacco, snuff, blunts, bidis, chewing tobacco and electronic smoking devices, and any other products containing nicotine, as well as any component or accessory used in the consumption of a tobacco product, such as filters, rolling papers, pipes, and liquids used in electronic smoking devices, whether or not they contain nicotine. "Tobacco use" means smoking, chewing, dipping, electronic smoking device use, or any other use of tobacco products.
- 18. **Contract Incorporation:** These terms and conditions are made a part of any resulting contract.

## X. ADDITIONAL FORMS

## STATE CORPORATION COMMISSION FORM

This form must be returned with response to solicitation

Virginia State Corporation Commission ("SCC") registration information. The undersigned Offeror:
is a corporation or other business entity with the following SCC identification number:
-ORis <u>not</u> a corporation, limited liability company, limited partnership, registered limited liability partnership, or business trust
is an out-of-state business entity that does not regularly and continuously maintain as part of its ordinary and customary business any employees, agents, offices, facilities, or inventories in Virginia (not counting any employees or agents in Virginia who merely solicit orders that require acceptance outside Virginia before they become contracts, and not counting any incidental presence of the offeror in Virginia that is needed in order to assemble, maintain, and repair goods in accordance with the contracts by which such goods were sold and shipped into Virginia from offeror's out-of-state location)
-OR is an out-of-state business entity that is including with this proposal an opinion of legal counsel which accurately and completely discloses the undersigned offeror's current contacts with Virginia and describes why those contacts do not constitute the transaction of business in Virginia within the meaning of § 13.1-757 or other similar provisions in Titles 13.1 or 50 of the Code of Virginia.
**NOTE** Check the following if you have not completed any of the foregoing options but currently have pending before the SCC an application for authority to transact business in the Commonwealth of Virginia and wish to be considered for a waiver to allow you to submit the SCC identification number after the due date for proposals (the Commonwealth reserves the right to determine in its sole discretion whether to allow such waiver):
Signature: Date:
Printed Name
Title:
Name of Firm:

## **ANTI-COLLUSION CERTIFICATION**

The Offeror certifies that this Bid response is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a Bid for the same product and that this Bid is in all respects bona fide, fair, and not the result of any act of fraud or collusion with another person or firm engaged in the same line of business or commerce. The Offeror understands collusive bidding is a violation of Federal Law and that any false statement hereunder constitutes a felony and can result in fines, imprisonment, as well as civil damages. The Offeror also understands that failure to sign this statement will make the Bid non-responsive and unqualified for award.

Signed:			
Date:			
Name of Company: _			
MINORITY & WOME	:N-OWNED BUSINESS EN	TERPRISE CERTIFICATION	
The Bidder should co	omplete the following info	ormation:	
•	-	ed business enterprise (MB esponse to this question, B	E/WBE)? idder shall complete the following:
Will Bidder be using	subcontractors? Yes:	No:	
Women-Owned Busi	iness Enterprises whereve	er possible, the Bidder (Pro	e, VA's policy to utilize Minority and poser) has solicited quotations for dditional sheet if necessary.)
1. <u>Name of Firm</u>	Person(s) Contacted	Type of Labor, Service or Material Quoted	<u>Date</u>
	oove, we intend to utilize ach additional sheet if ne	_	completion of the work required
Name of Firm		Type of Labor, Service or Material Quoted	Amount of Contract Subcontract

	ndicated MBE/WBE firms in this project. If the Proposer determines not to use idder must notify the School Board and provide a valid non-discriminatory aploying the MBE/WBE.
3. If the MBE/WBE's ind (Attach additional sheet	ated in paragraph 1 will not be utilized, please state the reason for each firm. necessary.)
Name of Firm	Results of Contact
	<del>.</del>
4. If unable to contact M	E/WBE's, please indicate efforts made: (Attach additional sheet if necessary.)
	E/WBE's, please indicate efforts made: (Attach additional sheet if necessary.)  faith effort to utilize MBE/WBE's whenever possible.
	faith effort to utilize MBE/WBE's whenever possible.
This firm has made a goo	

(Ink Signature and title)

(Date)

## Form W-9 (Rev. October 2018)

(Rev. October 2018) Department of the Treasury Internal Revenue Service

## Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

Departr	nent of the Treasury Revenue Service	► Go to www.irs.gov/FormW9 for in	structions and the late	st information.		send	to the	IRS.
		on your income tax return). Name is required on this line;						
	9 Business named	disregarded entity name, if different from above						
	Z Dubi Mos Hallian	and a many rame, a disease non above						
3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes.					4 Exempti certain ent	ions (cod	es apply	only to
8   ins				Instructions on page 3);				
single member LLC				Exempt pa	yee code	(If any)		
Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) >= Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. Is classified as a single-member LLC that is disregarded from the owner for U.S. Is classified as a single-member LLC that is disregarded from the owner for U.S. Is classified to the owner should check the interpretate box for the two distributions of the content of the content of the third that is disregarded from the owner should be content on the content of the								
in the	LLC if the LL0	the appropriate box in the line above for the tax classificat cls classified as a single-member LLC that is disregarded	from the owner unless the o	owner of the LLC is	exemption code (if an		TCA rep	orting
4 €	is disregarde	hat is not disregarded from the owner for U.S. federal tax I from the owner should check the appropriate box for the	tax classification of its own	or.				
8	Other (see in:	structions) > r, street, and apt. or suite no.) See instructions.		Requester's name a	(Applies to acc			othe (LS.)
88	o residua parace	, and the species and recipions and decisions.		1100000		(opnora	,	
٠,	6 City, state, and 2	IP code						
	7 List account num	iber(s) here (optional)						
	T Lat account has	(d) man (aprilla and						
Par		yer Identification Number (TIN)						
		propriate box. The TIN provided must match the na r Individuals, this is generally your social security no			urity numb	er i	_	т т
reside	nt allen, sole prop	rietor, or disregarded entity, see the instructions fo	r Part I, later. For other		-	-		
TIN, la		yer identification number (EIN). If you do not have a	number, see How to ge	or		_ '		
		n more than one name, see the instructions for line	1. Also see What Name	and Employer	dentificati	on numb	er	
Numb	er To Give the Re	guester for guidelines on whose number to enter.		П.				П
Part	Certifi	cation						Ш
	penalties of perju							
		n this form is my correct taxpayer identification nur						
Sen	vice (IRS) that I an	ckup withholding because: (a) I am exempt from b n subject to backup withholding as a result of a fall backup withholding; and						
3. I am	a U.S. citizen or	other U.S. person (defined below); and						
		ntered on this form (if any) indicating that I am exer		_				
you ha acquis	ve falled to report tion or abandonm	<ul> <li>You must cross out Item 2 above if you have been all interest and dividends on your tax return. For real e ent of secured property, cancellation of debt, confirbu- vidends, you are not required to sign the certification,</li> </ul>	estate transactions, item 2 itions to an individual retir	does not apply. For rement arrangement	r mortgage (IRA), and	interest generali	t pald, ly, paym	ents
Sign Here	Signature of U.S. person i	•		Date ►				
Gar	neral Instr		• Form 1099-DIV (dl	vidends, including t	those from	n stocks	or mut	ual
Sectio		o the Internal Revenue Code unless otherwise	funds) • Form 1099-MISC (	_				
noted.	developments.	For the latest information about developments	proceeds) • Form 1099-B (stoo	or mutual fund so	alee and o	artain n	ther	
		t its instructions, such as legislation enacted d, go to www.irs.gov/FormW9.	transactions by brok	kers)			a rea	
Pur	ose of For	m	• Form 1099-K (mer				ansacti	ions)
		orm W-9 requester) who is required to file an he IRS must obtain your correct taxpayer	<ul> <li>Form 1098 (home 1098-T (tuition)</li> </ul>	mortgage Interest),	1098-E (s	tudent i	oan Inte	erest),
		IN) which may be your social security number er identification number (ITIN), adoption	<ul> <li>Form 1099-C (can</li> </ul>					
taxpay	er Identification n	umber (ATIN), or employer identification number	Form 1099-A (acqu					
amour	it reportable on a	ormation return the amount paid to you, or other n information return. Examples of information	alleri), to provide you	ly If you are a U.S.   ur correct TIN.	person (in	auding	a reside	SI IL
		not limited to, the following. st earned or paid)	if you do not retur be subject to backup later.	n Form W-9 to the p withholding. See				

Cat. No. 10231X Form W-9 (Few. 10-2018)

## ROANOKE CITY PUBLIC SCHOOLS CERTIFICATION OF COMPLIANCE WITH VIRGINIA CODE

- 1. A sworn statement or affirmation from the contractor that neither the contractor nor any of its employees have been convicted of a felony or any offense involving the sexual molestation or physical or sexual abuse or rape of a child nor a crime of moral turpitude is mandated by Virginia Code Section 22.1-296.1.
- 2. Affirmation from the contractor that the contractor does not, and shall not, during the performance of the contract for goods and services in Virginia, knowingly employ an unauthorized alien as defined in the federal Immigration Reform and Control Act of 1986.
- 3. A sworn statement or affirmation from the contractor that the employees have submitted to and passed an employment drug screening.
- 4. Affirmation from the contractor that the contractor does not and shall not during the performance of the contract for goods and services in Virginia, knowingly employ an individual that has been convicted of any violent felony set forth in the definition of barrier crime in subsection A of Virginia Code Section 19.2-392.02.

Bid/Proposal Number: 3182

List of employee(s) assigned to the project:

ndividuals have never been convicted of a violent felon or sexual abuse or rape of a child; nor a crime of moral these individuals is currently the subject of any pending involving the sexual molestation or physical or sexual at do not nor shall I during the performance of the contracted and Immigration Reform and Control Act of 1986; 4) employment drug screening.	nat based upon the results of such background check these y or any offense involving the sexual molestation or physical turpitude; 2) to the best of my knowledge and belief none of criminal charges involving a violent felony or any offense buse or rape of a child; nor a crime of moral turpitude; and 3) act knowingly employ an unauthorized alien as defined in the the above listed persons have submitted to and passed an lated copy of this form must be submitted to the Purchasing the project.
Name of Company Officer	Date
Signature of Company Officer	Rev. 8/2020
17   Page	

## **Reference Form**

1. Project Location and Scope:		
Agency Name:		
Address:		
Contact Person:	Telephone No	<del></del>
Email:	_	
2. Project Location and Scope:		
Agency Name:		
Address:		
Contact Person:	Telephone No	
Email:	<del>-</del>	
3. Project Location and Scope:		
Agency Name:		
Address:		
Contact Person:	Telephone No	
Email:	<del>_</del>	

## **Certification of Proposal**

# PATRICK HENRY HIGH SCHOOL – LOWER PRACTICE FIELD REGRADING AND REHABILITATION IFB 3182

The undersigned certifies a comprehension of the specifications in the foregoing proposal, and that the merchandise or service submitted for this proposal meets or exceeds the specifications as listed herein. The successful vendor certifies that the vendor, all principals, and sub-recipients, are not suspended or debarred from providing the services described in this contract. Further, Roanoke City Public Schools reserves the right to review the List of Parties Excluded from Federal Procurement or Non procurement Programs to determine that the successful vendor, including all principals and sub-recipients, has not been suspended or debarred from providing the services described in this contract.

FIRM
BY
(Signature validates proposal)
(Print or type name)
TITLE
ADDRESS
CITY
STATE, ZIP
TELEPHONE
TOLL-FREE NUMBER
FAX NUMBER
E-MAIL
DATE

## XI. BID FORM – IFB 3182

## PATRICK HENRY HIGH SCHOOL – LOWER PRACTICE FIELD REGRADING AND REHABILITATION

Submitted by:		
Firm Name:		
the City of Roanoke, to fur PRACTICE FIELD REGRADING	nish all equipment, materials, labor AND REHABILITATION AT PATRICK	d, to Contract with the School Board of r, and services necessary for <b>LOWER</b> <b>HENRY HIGH SCHOOL,</b> located at 2102 ner's Documents as attachments to this
TOTAL BASE BID AMOUNT (P	PRACTICE FIELD STABILIZATION - BER	RMUDA GRASS SODDING) IS:
	Dollars	5 (\$)
ALTERNATIVE BID AMOUNT	(PRACTICE FIELD STABILIZATION – BI	ERMUDA GRASS SPRIGGING) IS:
	Dollars	s (\$)
ADDENDA: The undersigned Documents:	hereby acknowledges the receipt of	the following addenda to the Contract
Addendum	Dated	

The Owner reserves the right to negotiate with the lowest responsible bidder, to reject any and all bids, to waive any informality or irregularity in the bids received, and to take any action deemed in the best interests of Roanoke City Public Schools.

The undersigned hereby agrees, if this Bid is accepted by the School Board of the City of Roanoke, to commence work with an adequate force and equipment on the date stipulated in the written "Notice to Proceed" from the Senior Director of Physical Plants and to complete the work within the time period described in the Contract Documents. The undersigned agrees, if this Bid is accepted, failure or refusal to execute the Contract with and furnish to the School Board of the City of Roanoke the required bonds and certificates of insurance, within ten (10) consecutive calendar days from the receipt of written notice from the School Board of the City of Roanoke will result in a forfeiture of the Bid Security to the School Board of the City of Roanoke as liquidated damages.

The successful Bidder may be awarded a Lump Sum Co	ontract.		
Licensed "Class A" Virginia Contractor Number: Bidder is aresident ornonresident of Virgini Section 54.1-1100 <u>et. seq</u> .)			See <u>Virginia Code</u>
BIDDER:			
(Telephone)	(FAX)		_
(Ink Signature and Title)		(Date)	

END OF BID FORM

# STANDARD CITY OF ROANOKE CONSTRUCTION PROCEDURE REQUIREMENTS

NOTICE: ALL LANDOWNERS, DEVELOPERS AND CONTRACTORS

FAILURE TO COMPLY WITH THE CONSTRUCTION PROCEDURE REQUIREMENTS LISTED BELOW MAY RESULT IN THE COSTLY REMOVAL OF STRUCTURES, TIME DELAYS OR THE ISSUANCE OF A STOP WORK ORDER.

- RIGHT-OF-WAY EXCAVATION PERMIT PRIOR TO THE COMMENCEMENT OF ANY DIGGING, ALTERATION OR CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY (STREETS, ALLEYS, PUBLIC EASEMENTS). A RIGHT-OF-WAY EXCAVATION PERMIT SHALL BE APPLIED FOR AND OBTAINED BY THE CONTRACTOR FROM THE CITY OF ROANOKE.
- 2. LAND DISTURBANCE PERMIT AN APPROVED EROSION AND SEDIMENT CONTROL PLAN FOR ANY BORROW/FILL SITES ASSOCIATED WITH THE PROJECT MUST BE SUBMITTED PRIOR TO THE ISSUANCE OF A LAND DISTURBANCE PERMIT.
- 3. PLANS AND PERMITS A COPY OF THE PLANS AS APPROVED BY THE CITY (SIGNED BY THE PROPER CITY OFFICIALS) AND ALL PERMITS ISSUED BY THE CITY SHALL BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES OF ONGOING CONSTRUCTION.
- LOCATION OF UTILITIES THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.
- CONSTRUCTION ENTRANCE THE CONTRACTOR SHALL INSTALL AN ADEQUATE CONSTRUCTION ENTRANCE FOR ALL CONSTRUCTION RELATED EGRESS FROM THE SITE. SIZE AND COMPOSITION OF CONSTRUCTION ENTRANCE SHALL BE AS SHOWN ON THE PLANS.
- STREETS TO REMAIN CLEAN IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT THE PUBLIC STREET ADJACENT TO THE CONSTRUCTION ENTRANCE REMAINS FREE OF MUD, DIRT, DUST, AND/OR ANY TYPE OF CONSTRUCTION MATERIALS OR LITTER AT
- BARRICADES/DITCHES THE CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF ALL EXCAVATED DITCHES AND SHALL FURNISH AND ENSURE THAT ALL BARRICADES PROPER AND NECESSARY FOR THE SAFETY OF THE PUBLIC ARE IN PLACE.
- SEWER AND PAVEMENT REPLACEMENT CONSTRUCTION OF SANITARY SEWERS AND THE REPLACEMENT OF PAVEMENT SHALL BE IN ACCORDANCE WITH APPROVED STANDARDS AND SPECIFICATIONS OF THE CITY OF ROANOKE AND THE WESTERN VIRGINIA WATER AUTHORITY.
- APPROVED PLANS/CONSTRUCTION CHANGES ANY CHANGE OR VARIATION FROM CONSTRUCTION DÉSIGN AS SHOWN ON THE OFFICIALLY APPROVED PLANS SHALL BE APPROVED BY THE EROSION AND SEDIMENT CONTROL AGENT PRIOR TO SAID CHANGES OR VARIATION IN CONSTRUCTION BEING MADE.
- 10. FINAL ACCEPTANCE/CITY THE OWNER OR DEVELOPER SHALL FURNISH THE CITY OF ROANOKE'S PLANNING BUILDING AND DEVELOPMENT DEPARTMENT WITH A FIELD SURVEYED FINAL CORRECT SET OF AS-BUILT PLANS OF THE NEWLY CONSTRUCTED STORM RAIN AND/OR STORMWATER MANAGEMENT FACILITIES PRIOR TO FINAL ACCEPTANCE AND ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE CITY. AS-BUILT PLANS SHALL BE PROVIDED IN THE STATE PLANE VIRGINIA SOUTH COORDINATE SYSTEM, NAD 1983, FIPS 4502 FEET, US SURVEY FEET, DATUM NAD 83, IN THE FORM OF 1 PAPER COPY AND 1 DIGITAL AUTOCAD FILE.

# WESTERN VIRGINIA WATER AUTHORITY NOTES

THERE ARE NO EXISTING OR PROPOSED DOMESTIC WATER OR SANITARY SEWER SERVICES

FIELD IRRIGATION WILL BE PROVIDED BY RE-USE OF THE EXISTING IRRIGATION SUPPLY FACILITIES.

# GENERAL DEMOLITION NOTES

THE LIMITS OF "DISTURBED AREA" OR "AREA OF WORK" ARE TO BE REMOVED FROM THE SITE IN THEIR ENTIRETY. IN THE EVENT THAT THERE ARE QUESTIONS REGARDING THE DISPOSITION OF CERTAIN IMPROVEMENTS. THE CONTRACTOR SHALL VERIFY WITH THE ENGINEER PRIOR TO ENGAGING IN ANY DEMOLITION WORK RELATIVE TO THE ITEM(S) IN QUESTION.

DEMOLITION SHALL INCLUDE, UNLESS OTHERWISE NOTED ON DRAWINGS, REMOVAL OF EXISTING OBJECTS OR IMPROVEMENTS. WHETHER INDICATED ON THE DRAWINGS OR NOT. THAT WOULD IN THE OPINION OF THE OWNER, PREVENT OR INTERFERE WITH THE PROGRESS OR COMPLETION OF THE PROPOSED WORK.

PERMITS, FEES AND LICENSES SHALL BE SECURED AND PAID FOR BY THE CONTRACTOR, INCLUDING DISPOSAL CHARGES AS REQUIRED.

WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE GOVERNING AUTHORITIES IN DEMOLITION OF EXISTING PAVEMENT, CURBS AND GUTTERS, DRAINAGE STRUCTURES AND UTILITIES AS MAY BE REQUIRED.

CONTRACTOR SHALL SAW-CUT ALL JOINTS WHERE EXISTING CURBING, PAVEMENT AND SIDEWALK IS TO BE DEMOLISHED AND NEW CONSTRUCTION JOINS THE EXISTING.

ALL EXISTING CURBING, CONCRETE SIDEWALK, ENTRANCES, BUILDING FOUNDATIONS AND TREES AND BRUSH THAT ARE DEMOLISHED SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR. DEMOLITION DEBRIS, ETC. SHALL NOT BE USED AS FILL MATERIAL ON THE

REFER TO PROJECT MANUAL FOR DIRECTION GOVERNING ABANDONMENT OR REMOVAL OF EXISTING UTILITIES.

CONTRACTOR SHALL PROVIDE THE FOLLOWING PROTECTIONS AT THE JOB SITE:

MAKE ARRANGEMENTS, BEFORE INITIATING DEMOLITION, FOR RELOCATING, DISCONNECTION, REROUTING, ABANDONING, OR SIMILAR ACTION AS MAY BE REQUIRED RELATIVE TO UTILITIES AND OTHER UNDERGROUND PIPING. TO PERMIT WORK TO PROCEED WITHOUT DELAY.

ARRANGEMENTS SHALL BE MADE IN ACCORDANCE WITH REGULATIONS OF AUTHORITIES OF UTILITIES MENTIONED. SUCH AS OVERHEAD / UNDERGROUND POWER AND TELECOMMUNICATION LINES AND EQUIPMENT, GAS PIPING, STORM SEWERS, SANITARY SEWERS, OR WATER PIPING.

CONTRACTOR SHALL NOT USE WATER WHEN IT MAY CREATE HAZARDOUS OR OBJECTIONABLE CONDITIONS SUCH AS ICE, FLOODING AND / OR POLLUTION.

ENSURE SAFE PASSAGE OF PERSONS AROUND ALL AREAS OF DEMOLITION.

CONDUCT OPERATIONS TO PREVENT DAMAGE TO ADJACENT BUILDINGS, STRUCTURES, OTHER FACILITIES, OR INJURY TO PERSONS.

PROMPTLY REPAIR DAMAGES CAUSED TO ADJACENT FACILITIES BY DEMOLITION OPERATIONS AT NO COST TO THE OWNER.

MAINTAIN EXISTING UTILITIES INDICATED TO REMAIN, KEEP IN SERVICE, AND PROTECT AGAINST DAMAGE DURING DEMOLITION OPERATIONS.

PREVENT INTERRUPTION OF EXISTING UTILITIES SERVING OCCUPIED OR USED FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY AUTHORITIES HAVING JURISDICTION.

PROVIDE TEMPORARY SERVICES DURING INTERRUPTIONS TO EXISTING UTILITIES AS ACCEPTABLE TO OWNER AND GOVERNING AUTHORITIES.

PROVIDE TRAFFIC CONTROL MEASURES AS DEEMED NECESSARY FOR CONTROL OF VEHICULAR ROUTES DURING TIMES OF DEMOLITION OR RECONSTRUCTION WITHIN OR ADJACENT TO PUBLIC STREETS OR OTHER OFF-SITE VEHICULAR ROUTES. CONTROLS MAY INCLUDE. BUT NOT BE LIMITED TO, CONES, BARRELS, BARRICADES, SIGNAGE (STATIC AND/OR MARQUISE) AND FLAGMEN.

USE WATER SPRINKLING AND OTHER SUITABLE METHODS TO LIMIT DUST AND DIRT RISING AND SCATTERING IN AIR TO LOWEST PRACTICAL LEVEL. COMPLY WITH GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION

CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT, AND DEBRIS CAUSED BY DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITIONS EXISTING PRIOR TO THE

# VICINITY MAP TO FRANKLIN RD. *LAKEWOOD* MONTGOMERY AVE.

## GENERAL NOTES

ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE CONSTRUCTION STANDARDS AND SPECIFICATIONS OF THE CITY OF ROANOKE, VDOT, AND/OR THE WESTERN VIRGINIA WATER AUTHORITY, AS APPLICABLE.

MEASURES TO CONTROL EROSION AND SILTATION MUST BE PROVIDED FOR PRIOR TO PLAN APPROVAL. PLAN APPROVAL IN NO WAY RELIEVES THE DEVELOPER OR CONTRACTOR OF THE RESPONSIBILITIES CONTAINED IN EROSION AND SILTATION CONTROL POLICIES.

AN APPROVED SET OF PLANS AND ALL PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE.

FIELD CORRECTIONS SHALL BE APPROVED BY THE CITY OF ROANOKE DEPARTMENT OF PLANNING BUILDING AND DEVELOPMENT PRIOR TO SUCH CONSTRUCTION.

FIELD CONSTRUCTION SHALL HONOR PROPOSED DRAINAGE DIVIDES AS SHOWN ON PLANS.

CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AT THE JOB SITE.

CONSTRUCTION DEBRIS SHALL BE CONTAINED IN ACCORDANCE WITH THE VIRGINIA LITTER CONTROL ACT. NO LESS THAN ONE LITTER RECEPTACLE SHALL BE PROVIDED ON-SITE.

THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF CLEANING MUD FROM TRUCKS AND/OR OTHER EQUIPMENT PRIOR TO ENTERING PUBLIC OR PRIVATE STREETS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSURE THAT THE STREETS ARE IN A CLEAN, MUD AND DUST FREE CONDITION

THE CONTRACTOR SHALL SUPPLY ALL UTILITY COMPANIES WITH COPIES OF APPROVED PLANS. ADVISING THEN THAT ALL GRADING AND INSTALLATION SHALL CONFORM TO APPROVED PLANS.

LOCATION OF UNDERGROUND UTILITIES IS BASED ON AVAILABLE RECORDS. CONTRACTOR SHALL FIELD-VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION, AND NOTIFY ENGINEER IMMEDIATELY UPON DISCOVERY OF CONDITIONS THAT WILL AFFECT INSTALLATION OF PROPOSED IMPROVEMENTS.

CONTRACTORS SHALL NOTIFY UTILITIES OF PROPOSED CONSTRUCTION AT LEAST TWO, BUT NOT MORE THAN TEN WORKING DAYS IN ADVANCE. AREA PUBLIC UTILITIES MAY BE NOTIFIED THROUGH MISS UTILITY AT (800) 552-7001.

THE SUBJECT SITE LIES WITHIN ZONE "X" OF THE ONE-HUNDRED YEAR FLOOD PLAIN AS SHOWN ON ON FEMA FLOOD INSURANCE RATE MAPS (FIRM MAP NUMBER 51161C0163G, EFFECTIVE DATE 09/28/2007).

ALL WORK SHALL BE SUBJECT TO INSPECTION BY CITY OF ROANOKE INSPECTORS.

GRADE STAKES SHALL BE SET FOR ALL STORM DRAIN, AS APPLICABLE.

THE SITE WORK CONTRACTOR(S) SHALL COMPLY WITH LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES, BOTH ON AND OFF THE SITE. REFER TO THE VIRGINIA UNIFORM CODING SYSTEM CONTAINED IN THE VIRGINIA SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION, FOR DETAILS AND SPECIFICATIONS OF EROSION CONTROL ITEMS SHOWN ON THESE PLANS.

ALL FINISH GRADE CONTOURS AND SPOT ELEVATIONS SHOWN HEREIN ARE TO THE UPPER ELEVATION OF THE SPECIFIC ELEMENT. THE CONTRACTOR SHALL ACCOUNT FOR THE THICKNESS OF THE FINISH SURFACE (TOPSOIL, PAVEMENT, ETC.) IN GRADING OF THE SITE.

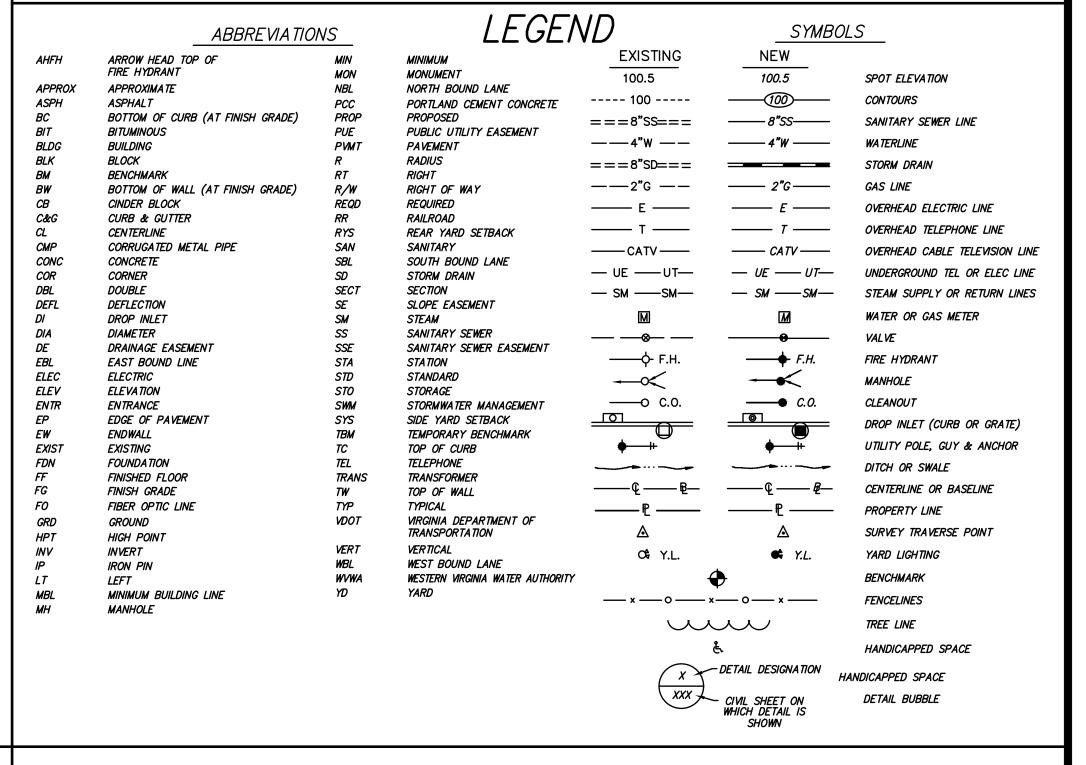
# SHEET INDEX

---- EROSION CONTROL NARRATIVE, MEASURES & CONSTRUCTION SEQUENCING

## --- NOTES AND LEGEND C-02 --- EXISTING CONDITIONS AND SITE DEMOLITION PLAN C-03 — DIMENSIONAL LAYOUT PLAN C-04 --- GRADING, EROSION CONTROL, & STORM DRAIN PLAN C-05 --- NEW STORM DRAIN PROFILES; SODDING, SPRIGGING & IRRIGATION REQUIREMENTS

C-07 --- DETAILS - SOIL EROSION & SEDIMENTATION CONTROL

ANY VARIATION FROM APPROVED PLANS MUST BE APPROVED BY THE CITY OF ROANOKE



## ENGINEER'S NOTES

FOR INFORMATION ON PLANS UNTIL SUCH PLANS HAVE BEEN APPROVED BY THE REQUIRED

ANY WORK COMMENCED ON A PROJECT PRIOR TO PLAN APPROVAL IS AT SOLE RISK OF THE

CALDWELL WHITE ASSOCIATES DOES NOT GUARANTEE THE COMPLETION OR QUALITY OF PERFORMANCE OF THE CONTRACTS OR THE COMPLETION OR QUALITY OF PERFORMANCE OF CONTRACTS BY SUBCONTRACTORS OR OTHER THIRD PARTIES.

SOURCE OF TOPOGRAPHIC MAPPING IS A COMBINATION OF FINISH GRADE CONTOURS FROM CONSTRUCTION PLANS AND A FIELD RUN TOPOGRAPHIC SURVEY PERFORMED BY CALDWELL WHITE ASSOCIATES.

PROPERTY BOUNDARY INFORMATION SHOWN HEREIN IS TAKEN FROM CONSTRUCTION PLANS BY CWA FOR THE HIGH SCHOOL AND THE STADIUM. AT THE TIME OF THOSE PROJECTS, FORMAL BOUNDARY SURVEYS WERE PERFORMED BY CWA.

REVISIONS

Remarks

Per First City Review

MISCELLANEOUS NOTES TAX PARCEL: (AS SHOWN TO THE RIGHT)

EXISTING USE: INSTITUTIONAL (PUBLIC SCHOOL)

Designed By: C.L. White

Date: March 12, 2024

W.O. # <u>23-0048</u>

N.B. # <u>Rke. City #16</u>

Drawn By: C.L. White 04-25

PROPERTY ZONING: INPUD - WITH CONDITIONS - ORDINANCE 41769 ammy. NAME OF

SHEET #

TITLE

EVENT OFFICIALS' PARKING AND LOWER PRACTICE FIELD REGRADING DEVELOPMENT PATRICK HENRY HIGH SCHOOL

2102 GRANDIN ROAD. S.W. **LOCATION** CITY OF ROANOKE, VIRGINIA 24015

ROANOKE CITY PUBLIC SCHOOLS 40 DOUGLASS AVENUE, N.W. **OWNER** ROANOKE, VA 24012 ATTN: MR. JEFF SHAWVER - CHIEF

OF PHYSICAL PLANTS (540) 853-6306

CONTRACTOR (SUBJECT TO BID)

DISTURBED AREA 1.54 ACRE =

TAX PARCEL 1460101

04-25-2024

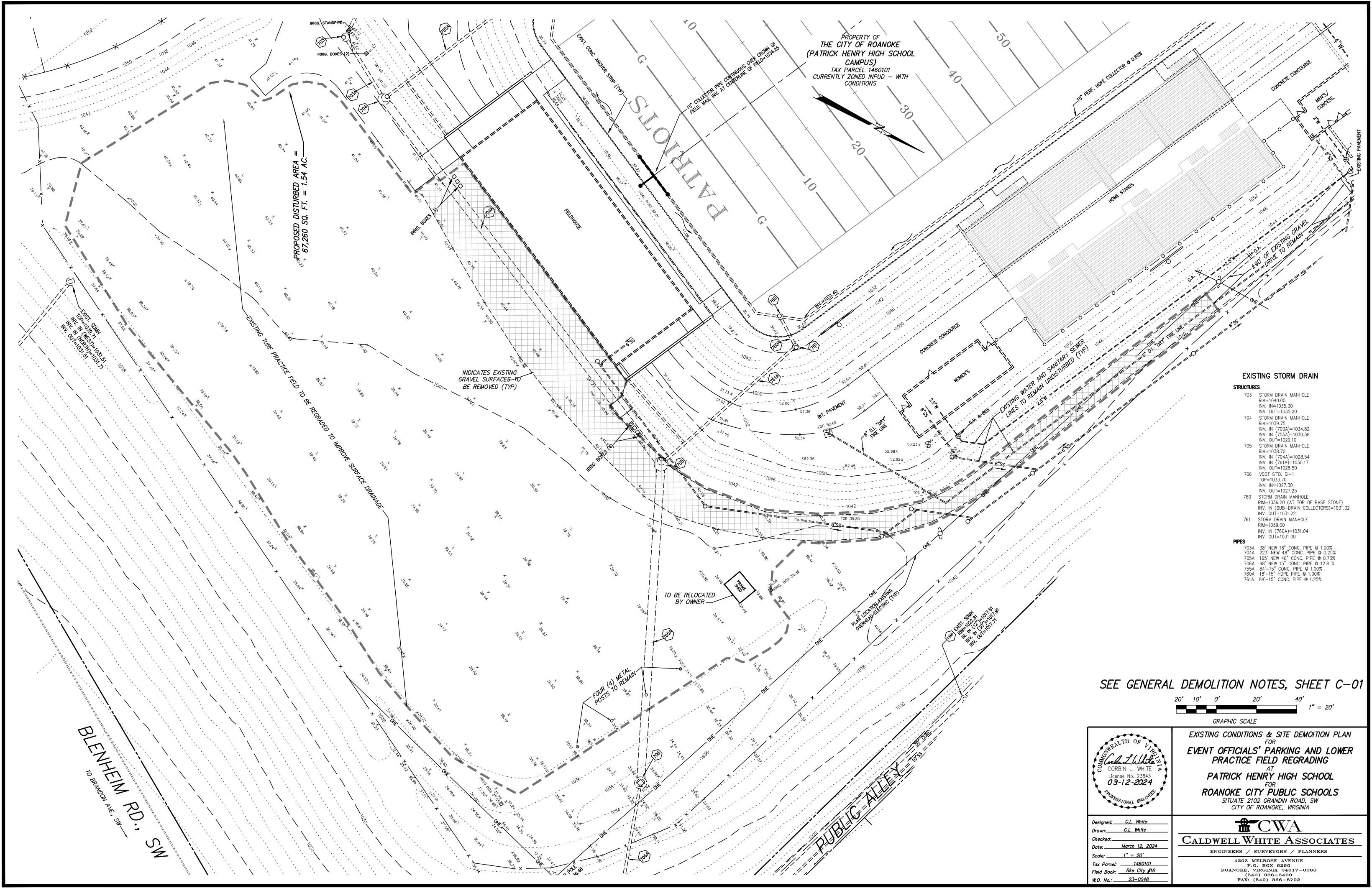
#CWA CALDWELL WHITE ASSOCIATES

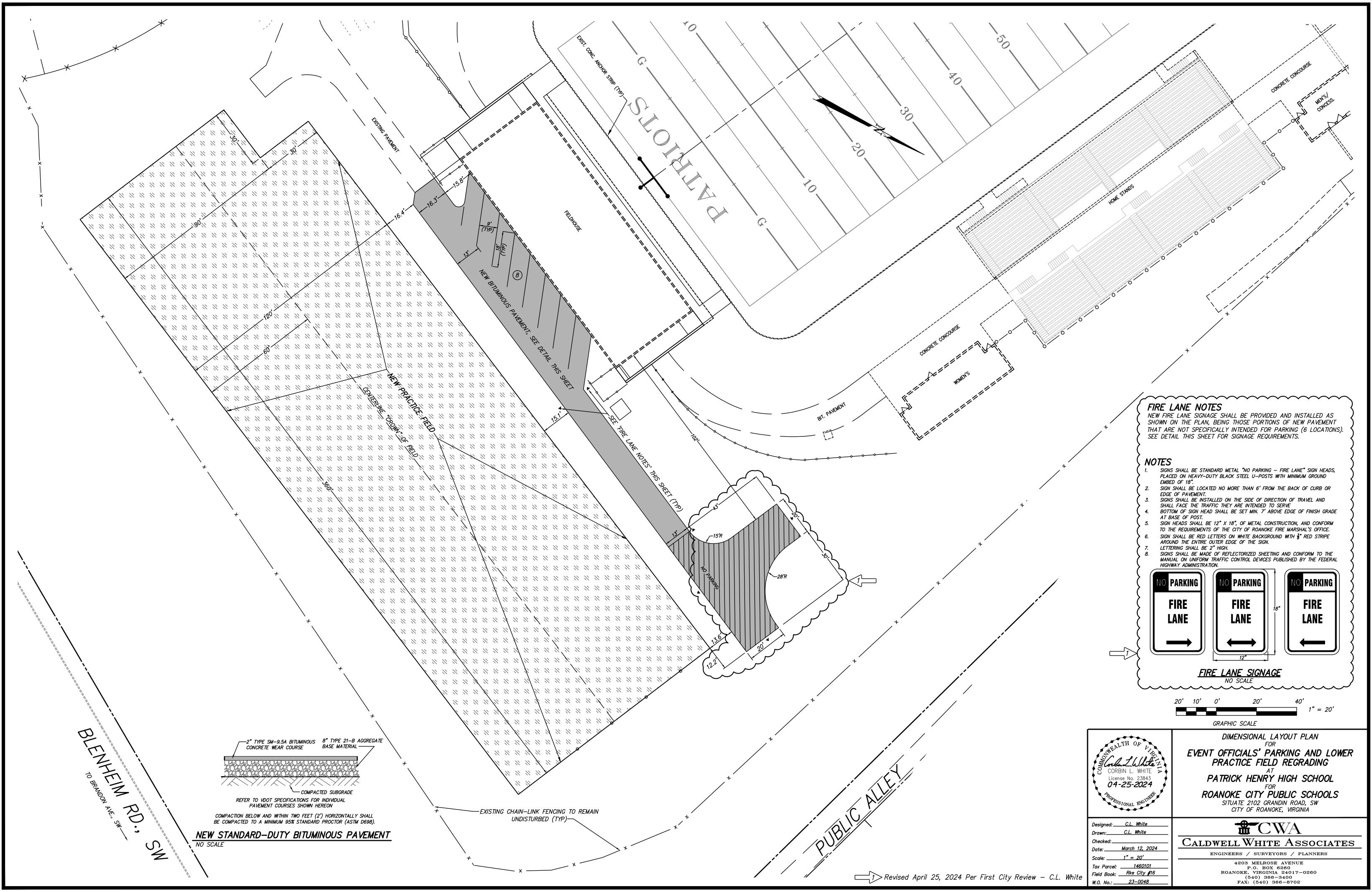
ENGINEERS / SURVEYORS / PLANNERS 4203 MELROSE AVENUE, N.W. P.O. BOX 6260

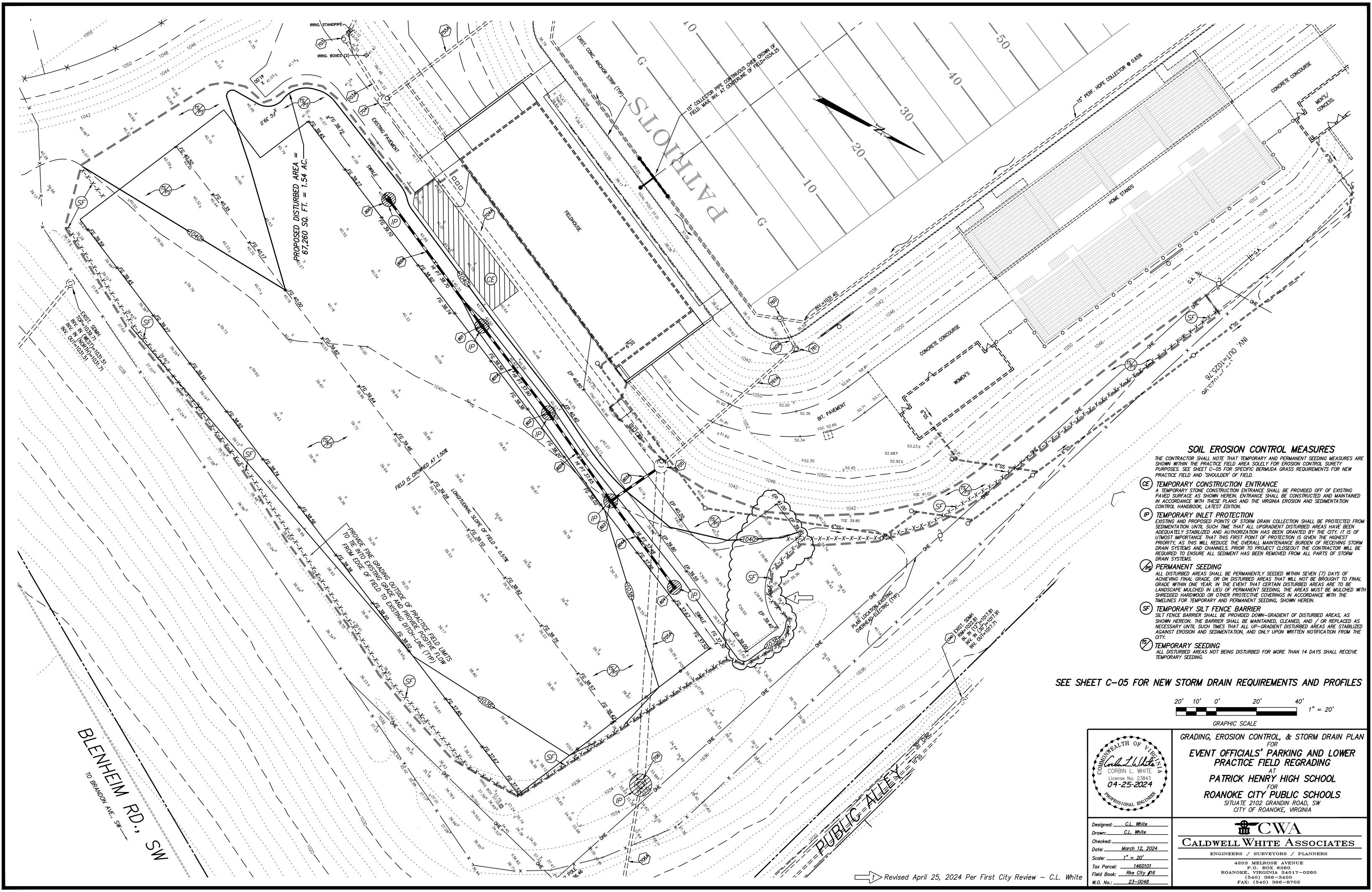
ROANOKE, VIRGINIA 24017-0260 (540) 366-3400

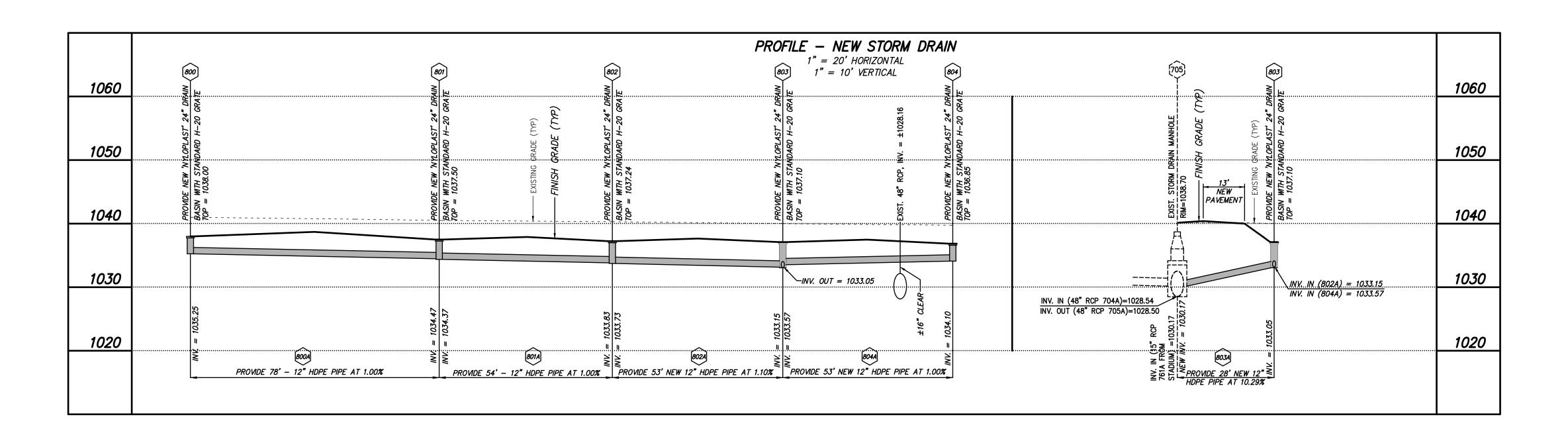
CITY OF ROANOKE, VA APPROVAL BLOCK

(CITY REF: CP24-0008)









## O NEW STORM DRAIN O

ALL NEW STORM DRAIN STRUCTURES SHALL BE 24" DRAIN BASINS AS MANUFACTURED BY NYLOPLAST, OR ENGINEER APPROVED EQUAL. GRATES SHALL BE STANDARD DUCTILE IRON, RATED FOR MINIMUM H-20 LOADING. DRAIN BASINS SHALL BE INSTALLED AND BEDDED PER MANUFACTURER'S REQUIREMENTS. PARTICULAR ATTENTION SHALL BE PAID TO COMPACTION OF MATERIAL BELOW THE FRAME AND COVER, TO AVOID SETTLEMENT AND/OR TIPPING OF THE FRAME AND

NEW STORM DRAIN PIPE SHALL BE DOUBLE-WALL HDPE (SMOOTH INTERIOR, CORRUGATED EXTERIOR), TYPE N-12 AS MANUFACTURED BY ADS OR ENGINEER APPROVED SIMILAR.

HDPE PIPE SHALL BE BEDDED AND BACKFILLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.

INTERCONNECTION TO EXISTING MANHOLE SHALL BE CORED, AND EITHER MADE SOIL TIGHT USING NON-SHRINK GROUT. OR INTERCONNECTED USING A FLEXIBLE BOOT AS GENERALLY USED FOR SANITARY SEWER.

## PRACTICE FIELD STABILIZATION - BERMUDA GRASS SODDING

The base bid for this project is to provide and install Bermuda Grass sodding of the 42,300 square foot practice area, as well as for a minimum 3' wide 'shoulder' strip around the field perimeter, for a total sod area of 45,216 square feet. All disturbed areas beyond these limits that are not to be hard-surfaced shall receive erosion control permanent seeding measures as outlined in these plans. Practice field stabilization shall be performed by a contractor experienced in the placement and maintenance of Bermuda Grass sodding.

## STRIPPING OF SURFICIAL SOILS

The contractor shall strip and stockpile existing surficial soils that will be required for replacement on disturbed areas outside the practice field which are not to receive hard surfacing. The stockpile shall be located within the approved limits of disturbance. Suggested location is in the area of the proposed 'tee-turnaround'. Protect stockpile(s) with perimeter silt fence and temporary seeding measures as specified herein. Areas to receive topsoil replacement shall receive six inches (6") of topsoil, all other stripped topsoil shall be removed from the property and disposed of by the contractor.

## ROUGH GRADING

Perform rough grading operations to reach subgrade elevation of areas to be sodded. Subgrade is defined as being at elevations below finish grade that will allow the placement of surficial soils prior to placing sod. Subgrade in areas to receive sod shall be held lower than adjacent areas to be seeded, to account for the sod thickness, coordinate anticipated sod thickness with supplier.

Compaction of subgrade soils shall be only to the extent provided by movement of the equipment used for field grading, generally +/- 80% of Standard Proctor (ASTM D698).

## TOPSOIL PREPARATION AND PLACEMENT

Immediately prior to placement of topsoil, the top four inches (4") of subgrade materials shall be tilled or disked to allow bonding of topsoil to subgrade soils.

Topsoil shall be commercial grade, blended at 70% soil / 30% silica sand, shall be free of weed seed and clumps or rocks in excess of one inch (1") on their largest dimension, and any other deleterious materials which would preclude achieving a smooth surface. Imported topsoil shall have test results verifying pH of 6.0 to 7.5, and defining whether fertilizer, lime, or other amendments are required.

If fertilizers, lime, or other amendments are required by the soil testing, these items shall be uniformly incorporated into the topsoil by tilling, disking, or other means approved by the Engineer.

Upon completion of topsoiling, and within four calendar days of sod placement, the field shall be rolled with a smooth rum roller specifically intended for use in final smoothing for sod placement. Care shall be taken to not use too heavy a drum on these rollers, to prevent over-compaction of soils. In the event of runoff producing rainfall events during this period, the field shall be allowed ample drying time, and shall be re-rolled prior to sodding.

## ACCEPTABLE SOD VARIETIES

Tacoma 31 Bermuda or Patriot Bermuda are the only acceptable varieties.

## SOD PLACEMENT

Immediately prior to sod placement, the contractor shall lightly irrigate the field to allow sod to properly bond with underlying soils, without wetting so much as to leave footprint or sod carrying equipment imprints that may affect achieving a smooth and uniform finish sod surface. Depending on ambient temperature, wind, and expected duration of sod placement, it may be required to water only portions of the field in advance of sodding, to prevent over-drying of the soil layer.

Place sod in accordance with sod supplier's recommendations. It is expected that sod will be:

- Installed within 48 hours of sod harvest,
- Installed in a running bond pattern,
- Installed such that free edges of sod will properly 'key' into topsoil layers that are to receive permanent seeding measures, to prevent drying of roots of outer limits of sod,
- Topdressed with topdressing sand as required to infill creases and low pieces and to help conserve
- Smooth drum rolled to ensure evenness and smoothness
- Immediately watered heavily to wet the entire depth of the sod and top portion of the root zone

## CONTRACTOR REQUIRED MAINTENANCE FOLLOWING SOD PLACEMENT

Contractor will be responsible for all aspects of the sodded field for the initial 30 calendar days after placement, or through first cutting, whichever is longer, including but not limited to watering, re-rolling, and replacing dead, dying or distressed sod areas with new.

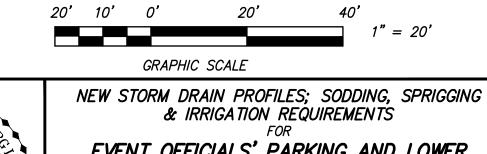
## ALTERNATE PRACTICE FIELD STABILIZATION - BERMUDA GRASS SPRIGGING

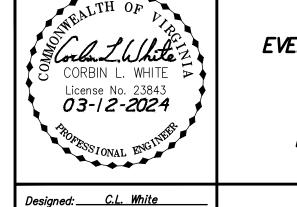
- A Bid Alternate is requested to replace the Bermuda grass Sodding with Bermuda grass Sprigging. As with the sodding, Tacoma 31 Bermuda or Patriot Bermuda are the only acceptable varieties.
- Field preparation shall be identical to that required for sodding, except that top of topsoil elevations shall be uniform with those areas to receive permanent seeding measures.
- Sprigs shall be placed as soon as possible following harvest. Time may vary depending on state of dormancy of the parent grass, coordinate closely with supplier.
- Sprigs shall be broadcast over the area by a contractor specializing in sprig placement, using equipment specifically designed for that purpose.
- Included in placement of the sprigs is cutting or pressing into the soil, covering with one-half inch of topdressing, and rolling to firm the seedbed to ensure sprig to soil contact, and immediate watering.
- Sprigs shall be watered immediately after planting, and watered several times daily for several weeks until the turfgrass establishes a root system. Do not sprig more area than can be immediately watered.
- Light, frequent irrigation (4 to 6 times daily) shall be provided until the turfgrass roots become
- Contractor's post-sprigging responsibility will match that required for sodding.

## PRACTICE FIELD IRRIGATION

The contractor is responsible for providing, installing, and testing a new underground irrigation system to provide coverage of the new practice field and a minimum 3' wide 'shoulder' strip around the field perimeter, for a total coverage area of 45,216 square feet. System to include all required piping, heads, fittings, timers and controls, and all appurtenances required to install a complete and functioning irrigation system. The System shall include means of blowing out the system in advance of freezing temperatures that may cause damages to the system.

- The System shall ensure even water distribution across the entire field to prevent dry patches or areas of
- Installation of the System shall be coordinated with the grading contractor to allow installation of supply piping and stubbing of head supply risers, as may be applicable for each individual system, upon completion of the rough grading operations. Backfilling of any trenches shall be compacted to levels identical to areas surrounding trenches, to avoid settlement over trenches.
- System installation shall be complete, tested, and deemed fully functional prior to placement of sodding or sprigaing, such that sod or sprigs may be watered immediately following installation.
- ullet New irrigation system shall be capable of providing one—half inch (1/2") of uniform water coverage per





EVENT OFFICIALS' PARKING AND LOWER PRACTICE FIELD REGRADING

> PATRICK HENRY HIGH SCHOOL ROANOKE CITY PUBLIC SCHOOLS SITUATE 2102 GRANDIN ROAD, SW

> > CITY OF ROANOKE, VIRGINIA

Drawn: C.L. White Checked:\_\_\_ Date: <u>March 12, 2024</u> Scale: \_\_\_\_\_\_1" = 20' Tax Parcel: <u>1460101</u> Field Book: Rke City #16 W.O. No.: <u>23-0048</u>

CALDWELL WHITE ASSOCIATES ENGINEERS / SURVEYORS / PLANNERS 4203 MELROSE AVENUE P.O. BOX 6260 ROANOKE, VIRGINIA 24017-0260 (540) 366-3400

FAX: (540) 366-8702

## SOIL EROSION CONTROL NARRATIVE

SQ. FOOTAGE OF DIST. AREA REVISED

> 80 INCHES

RFMARKS

THE PURPOSE OF THIS PROJECT IS PRIMARILY TO REGRADE AN EXISTING MONO—PITCH ATHLETIC PRACTICE FIELD TO CONSTRUCT A CROWNED FIELD, THEREBY IMPROVING DRAINAGE AND MAKING THE FIELD MORE USABLE FOLLOWING RUNOFF—PRODUCING RAINFALL EVENTS. A SECONDARY PURPOSE IS TO CONSTRUCT EIGHT (8) NEW EVENT—ONLY PARKING STALLS AT THE FIELD HOUSE FOR EVENT OFFICIALS AND COACHES. THE SUBJECT PROPERTY LIES AT THE EASTERN LIMITS OF THE PATRICK HENRY HIGH SCHOOL CAMPUS AT 2102 GRANDIN ROAD IN THE CITY OF ROANOKE, VIRGINIA. THE TOTAL DISTURBED AREA OF THE PROJECT IS ESTIMATED TO BE 67,260 SF = 1.54 AC. ~~~~

PROJECT DESCRIPTION:

THE SITE IS CURRENTLY A GRASS COVERED ATHLETIC PRACTICE FIELD AND AN EXISTING GRAVEL ACCESS DRIVE WHICH IS TO BE REMOVED. THE FIELD WHICH DRAINS INTO A CLOSED STORM DRAIN SYSTEM, WHILE THE MAJORITY OF THE GRAVEL DRIVE AREA DRAINS IN SHEET FLOW TO THE ADJACENT PUBLIC ALLEY. THE SUBJECT SITE LIES WITHIN "ZONE "X" AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP (FIRM) 51161C0163G, EFFECTIVE DATE 09/28/2007.

> 80 INCHES

## EXISTING SOIL CONDITIONS:

TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THERE HAVE BEEN NO SITE—SPECIFIC GEOTECHNICAL INVESTIGATIONS PERFORMED FOR THE SUBJECT PROPERTY. THE USDA WEB SOIL SURVEY IDENTIFIES THE SOILS IN THE AREA OF PROPOSED CONSTRUCTION AS BELONGING TO THE SOIL UNIT GROUP(S) SHOW BELOW: <u>UNIT CODE</u> <u>NAME</u> <u>CHARACTERISTICS</u> DEPTH TO RESTRICTIVE FEATURE DRAINAGE CLASS RUNOFF CLASS DEPTH TO WATER TABLE HYDROLOGIC SOIL GROUP

## UDORTHENTS-URBAN LAND COMPLEX PRIMARILY AREAS WHICH HAVE BEEN PREVIOUSLY FILLED OR DEVELOPED, AND ARE NOT NATIVE SOILS

## THE PROJECT SITE IS BOUNDED TO THE NORTH BY PERSINGER AVENUE (ALLEY), TO THE EAST BY BLENHEIM ROAD, AND TO THE SOUTH AND WEST BY THE REMAINDER OF THE SCHOOL CAMPUS.

ADJACENT PROPERTY:

THE LOCATION OF ALL OFF—SITE DISTURBED AREAS ASSOCIATED WITH THE CONSTRUCTION PROJECT SHALL BE PROVIDED TO ROANOKE CITY DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT. AN EROSION CONTROL PLAN OR MEASURES MAY BE REQUIRED FOR THESE AREAS. THE CITY OF ROANOKE OR ITS APPROVED AGENT RESERVES THE RIGHT TO PLACE A STOP WORK ORDER ON THE SUBJECT SITE AND ANY OFF-SITE ASSOCIATED AREAS, SHOULD APPROVED PLANS AND PERMITS NOT EXIST FOR ALL SITES.

1. I IS IMPERATIVE THAT PROTECTIONS BE INSTALLED ALONG THE PERIMETER OF THE WORK AREA, TO PROTECT AGAINST SEDIMENTATION OF THE EXISTING DITCH LINE AND THE EXISTING STORM DRAIN COLLECTION SYSTEMS.

SEE RESPONSE TO MINIMUM STANDARD MS-19 BELOW.

## EROSION AND SEDIMENT CONTROL MEASURES:

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK", THIRD EDITION.

- 1. REGARDLESS OF FUTURE DEVELOPMENT PLANS. THE CONTRACTOR SHALL IMMEDIATELY INSTALL EROSION AND SEDIMENT CONTROL AT CENTERS OF FLOW AND OTHER POINTS OF CONCENTRATION SHOWN HEREIN SHALL BE CONSTRUCTED FIRST.
- 2. FOLLOWING INSTALLATION OF THE PERIMETER CONTROLS, THE SITEWORK CONTRACTOR SHALL BEGIN EARTHWORK OPERATIONS. THE CONTRACTOR SHALL IMMEDIATELY PROCEED WITH CLEARING, GRUBBING, AND GRADING OPERATIONS. DENUDED AREAS INDICATED ON THESE PLANS TO RECEIVE PERMANENT SEEDING (STD & SPEC 3.32) SHALL BE SEEDED WITHIN SEVEN (7) DAYS AFTER FINAL GRADING, AND SHALL BE IN STRICT ACCORDANCE WITH THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK", THIRD EDITION.
- 3. IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL. IN PARTICULAR: A. THE CONSTRUCTION ENTRANCE (STD & SPEC 3.02) SHALL BE MAINTAINED IN A CONDITION TO PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAYS.

2. PROTECTIONS SHALL BE PROVIDED DOWN GRADIENT OF ANY DISTURBED SOILS, TO FILTER SEDIMENT LADEN RUNOFF PRIOR TO LEAVING THE SITE AND ENTERING THE WATERWAYS.

- B. ALL SILT FENCE BARRIERS (STD. & SPEC 3.05) SHALL BE CHECKED REGULARLY FOR UNDERMINING AND SEDIMENT BUILDUP. C. INLET PROTECTION MEASURES SHALL BE INSPECTED TO INSURE FILTRATION MEASURES ARE EFFECTIVE, AND ARE NOT CHOKED WITH SILT. CLEAN AS NECESSARY TO PREVENT EXCESSIVE PONDING.
- D. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHALL BE FERTILIZED AND RESEEDED AS NEEDED. 4. THE SOIL EROSION CONTROL MEASURES INSTALLED FOR THIS CONTRACT SHALL REMAIN IN PLACE UNTIL REMOVAL IS APPROVED BY THE CITY OF ROANOKE INSPECTOR, AT WHICH TIME IT SHALL BE THE SITEWORK CONTRACTOR'S RESPONSIBILITY TO REMOVE ALL DISTURBED AREAS IN ACCORDANCE WITH THESE PLANS.

## MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES:

No. | CRITERIA. TECHNIQUE OR METHOD

- SILT FENCE BARRIERS SHALL BE INSPECTED DAILY AND CLEANED OR REPLACED AS REQUIRED. CLEAN SILT FENCE WHEN SILT MEASURES ONE-HALF THE HEIGHT OF THE FENCE, OR AS REQUIRED.
- STORM DRAIN COLLECTION POINTS SHALL BE PROTECTED USING INLET PROTECTION MEASURES AS OUTLINED HEREIN. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF EXCESS SEDIMENT FROM THE STORM DRAIN STRUCTURES AT ALL TIMES UNTIL THE PROJECT IS COMPLETED AND TURNED OVER TO OWNER. - PUBLIC STREETS AND ADJACENT PAVED AREAS SHALL REMAIN IN A DUST AND MUD-FREE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD. SHOULD OFF-SITE SEDIMENTATION OCCUR, IT IS THE CONTRACTOR'S RESPONSIBILITY TO RETURN ALL AFFECTED AREAS TO A CONDITION EQUAL TO OR
- BETTER THAN THE ORIGINAL CONDITION, AT NO ADDED COST TO THE OWNER. — DISTURBED AREAS THAT ARE NOT PERMANENTLY STABILIZED WITHIN FOURTEEN (14) DAYS SHALL BE TEMPORARILY SEEDED IN ACCORDANCE WITH STANDARD AND SPECIFICATION 3.31 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
- ALL PROTECTIVE MEASURES WHICH PERTAIN TO, OR INCLUDE CUT AND FILL SLOPES (SILT FENCE, DIVERSION DIKES, ETC.) SHALL BE INSTALLED AND MAINTAINED AS THE SLOPES COME TO GRADE. ADDITIONAL DIVERSION DIKES WILL BE REQUIRED TO PROTECT DISTURBED AREAS, UNTIL SUCH TIME THAT THE STORM DRAIN SYSTEM IS IN PLACE, AND FUNCTIONALLY PROTECTED FROM SEDIMENT INFILTRATION. TEMPORARY SEEDING OF SLOPES IS TO BE PERFORMED ON A WEEKLY BASIS, UNLESS THE SLOPES ARE TO FINAL GRADE. SLOPES AT FINAL GRADE ARE TO BE PERMANENTLY SEEDED

APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE SHALL OBTAIN APPROVAL FROM THE LOCALITY OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY

NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL. H. ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE. I. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT

PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY. J. IN APPLYING THESE STORMWATER MANAGEMENT CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL

DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT, AS A WHOLE, SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS. K. ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL AND BIOLOGICAL INTEGRITY OF RIVERS,

SHALL SATISFY THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS IF THE PRACTICES ARE DESIGNED TO (I) DETAIN THE WATER QUALITY VOLUME AND TO RELEASE IT OVER 48 HOURS; (II) DETAIN AND RELEASE OVER A 24—HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE YEAR, 24—HOUR STORM; AND (III) REDUCE THE ALLOWABLE PEAK FLOW RATE RESULTING FROM THE 1.5, 2, AND 10—YEAR, 24—HOUR STORMS TO A LEVEL THAT IS LESS THAN OR EQUAL TO THE

PEAK FLOW RATE FROM THE SITE ASSUMING IT WAS IN A GOOD FORESTED CONDITION, ACHIEVED THROUGH MULTIPLICATION OF THE FORESTED PEAK FLOW RATE BY A REDUCTION FACTOR THAT IS EQUAL TO THE RUNOFF VOLUME FROM THE SITE WHEN IT WAS IN A GOOD FORESTED CONDITION DIVIDED BY THE RUNOFF VOLUME FROM THE SITE IN ITS PROPOSED CONDITION. AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN—MADE CHANNELS AS DEFINED IN ANY REGULATIONS

STREAMS AND OTHER WATERS OF THE STATE. L. ANY PLAN APPROVED PRIOR TO JULY 1, 2014, THAT PROVIDES FOR STORMWATER MANAGEMENT THAT ADDRESSES ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN—MADE CHANNELS

PROMULGATED PURSUANT TO \$ 10.1-562 OR 10.1-560 OF THE ACT. M. FOR PLANS APPROVED ON AND AFTER JULY 1, 2014, THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF \$ 10.1-561 A OF THE ACT AND THIS SUBSECTION SHALL BE SATISFIED BY COMPLIANCE WITH WATER QUANTITY REQUIREMENTS IN THE STORMWATER MANAGEMENT ACT (\$ 10.1—603.2 ET SEQ. OF THE CODE OF VIRGINIA) AND ATTENDANT REGULATIONS, UNLESS SUCH LAND—DISTURBING ACTIVITIES ARE IN ACCORDANCE WITH 4VAC50—60—48 OF

THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) PERMIT REGULATIONS. N. COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 4VAC50-60-66 OF THE

VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) PERMIT REGULATIONS SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF MINIMUM STANDARD 19.

AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE. G. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATERS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS

- THE CONTRACTOR IS REQUIRED TO PROVIDE AND MAINTAIN ALL EROSION CONTROL MEASURES AT THEIR OPTIMUM PERFORMANCE, SUCH THAT ADJOINING AREAS AND DRAINAGEWAYS ARE PROVIDED THE BEST AVAILABLE PROTECTION AT EVERY PHASE OF CONSTRUCTION. IT IS IMPERATIVE THAT SEDIMENT TRANSFER FROM THIS SITE IS MINIMIZED.

UPON ACHIEVING FINISH GRADE ELEVATIONS, ALL DISTURBED AREAS NOT TO RECEIVE HARD SURFACING SHALL BE PERMANENTLY SEEDED (STD & SPEC 3.32) AS OUTLINED HEREON AND ON THE SOIL EROSION CONTROL PLAN AND DETAIL SHEETS, UNLESS OTHER STABILIZATION MEASURES SUCH AS LANDSCAPE MULCHING ARE PROVIDED.

THE RESPONSIBLE LAND DISTURBER ON RECORD FOR THIS PROJECT IS RESPONSIBLE FOR IMPLEMENTATION, MAINTENANCE, AND REMOVAL OF ALL EROSION CONTROL MEASURES, AS APPLICABLE.

ALL MEASURES REQUIRED HEREIN SHALL BE MAINTAINED AS OUTLINED IN "CRITICAL AREAS" AND "EROSION AND SEDIMENT CONTROL MEASURES" SECTIONS ABOVE.

## 1. THE SITEWORK CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.

2. THE TOWN OF BEDFORD OR THEIR AUTHORIZED AGENT RESERVES THE RIGHT TO ADD TO, DELETE, OR OTHERWISE CHANGE EROSION CONTROL DEVICES AS MAY BE DEEMED NECESSARY, BY WRITTEN NOTIFICATION TO THE CONTRACTOR.

3. NO WORK SHALL PROCEED ON THE SITE UNTIL THE PROPER AUTHORIZATION OR PERMIT HAS BEEN OBTAINED FROM THE CITY OF ROANOKE. 4. THE ENGINEER, CALDWELL WHITE ASSOCIATES, ASSUMES NO RESPONSIBILITY FOR ANY WORK BEING PERFORMED.

## STATE IMPOSED MINIMUM STANDARDS

THE FOLLOWING STANDARDS ARE TO BE PROVIDED OR ADDRESSED ON EVERY DEVELOPMENT PROJECT EXCEEDING 10,000 S.F. IN AREA OF DISTURBANCE THESE STANDARDS ARE CONSIDERED A MINIMUM AND MAY REQUIRE ADDITIONAL MEASURES AS DEEMED NECESSARY BY THE LOCAL APPROVING AUTHORITY OR THE CONSULTING ENGINEER.

140.	CRITERIA, TECHNIQUE UR METHUD	REMARKS
1	PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN FOURTEEN (14) DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE (1) YEAR.	SELF-EXPLANATORY; SEE PERMANENT AND TEMPORARY SEEDING REQUIREMENTS HEREIN.
2	DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.	PROTECT EARTHEN STOCKPILES WITH SILT FENCE AND TEMPORARY SEEDING
3	A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT, IN THE OPINION OF THE LOCAL PROGRAM ADMINISTRATOR OR DESIGNATED AGENT, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.	SELF EXPLANATORY — ALL DISTURBED AREAS TO BE STABILIZED WITH GRASS OR HARD SURFACING
4	SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.	SELF EXPLANATORY — REFER TO SILT FENCE REQUIREMENTS
5	STABILIZATION METHODS SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.	NOT APPLICABLE TO SUBJECT DEVELOPMENT
6	SEDIMENT TRAPS AND BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.	NOT APPLICABLE TO SUBJECT DEVELOPMENT
7	CUT AND FILL SLOPES SHALL BE CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE (1) YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZATION MEASURES UNTIL THE PROBLEM IS CORRECTED.	SELF-EXPLANATORY
8	CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.	SELF-EXPLANATORY
9	WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.	REPORT EVIDENCE OF SEEPS TO ENGINEER IMMEDIATELY UPON DISCOVERY. ADDITIONAL MEASURES MAY BE REQUIRED.
10	ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.	PROVIDE INLET PROTECTIONS PRIOR TO PLACING SYSTEMS INTO SERVICE
11	BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.	NOT APPLICABLE TO SUBJECT DEVELOPMENT
12	WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.	NOT APPLICABLE TO SUBJECT DEVELOPMENT
13	WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX (6) MONTH PERIOD, A TEMPORARY STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL.	NOT APPLICABLE TO SUBJECT DEVELOPMENT
14	ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET. THE BEDS AND BANKS OF ANY WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.	NOT APPLICABLE TO SUBJECT DEVELOPMENT
15	THE BEDS AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.	NOT APPLICABLE TO SUBJECT DEVELOPMENT
16	UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA: 1)NO MORE THAN 500 LINEAR FEET OF ANY TRENCH MAY BE OPENED AT ONE TIME. 2)EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES. 3)EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION. 5)RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS. 6)APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.	SELF-EXPLANATORY. NEW PIPELINE CONSTRUCTION SHALL CONFORM TO THESE REQUIREMENTS.
17	WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.	PROVIDE NEW TEMPORARY CONSTRUCTION ENTRANCE PER REQUIREMENTS CONTAINED HEREIN.
18	ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM ADMINISTRATOR. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.	REMOVAL OF TEMPORARY MEASURES SHALL BE IN ACCORDANCE WITH MS-18.
19	PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24—HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA. STREAM RESTORATION AND RELOCATION PROJECTS THAT INCORPORATE NATURAL CHANNEL DESIGN CONCEPTS ARE NOT MAN—MADDE CHANNELS AND STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADDOLATE NATURAL OR MAN—MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED. B. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERFIELD IN THE FOLLOWING MANNER: (1) THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION, OR (2) (A) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TEM—YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BE ANALYZED BY THE USE OF A TEM—YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO—YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT OVERTOP OF A TWO—YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT OVERTOP OF A TWO—YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT OVERTOP OF A TWO—YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND (C) PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A TEM—YEAR STORM TO VERTEY THAT STORMWATER WILL NOT CAUSE EROSION TO THE CHANNEL BED OR BANKS; OR (2) IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEM—YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNELS OR PIPE SYSTEM TO A CONDITION WHERE THE TEM—YEAR STORM IS ONCORDANDE WITHOUT OF THE BANKS AND THE WILL NOT CAUSE THE PRE—DEVELOPMENT,	WATER QUALITY: THE ENGINEER HAS PROVIDED THE CITY OF ROANOKE WITH COMPUTATIONS OUTLINING THE NEED FOR 0.13 LB/YEAR OF TOTAL PHOSPHOROUS REDUCTION. THIS REQUIREMENT WILL BE MET THROUGH THE PURCHASE OF NUTRIENT CREDITS FROM A VIRGINIA DEQ AUTHORIZED NUTRIENT CREDIT BANK.  RUNOFF QUANTITY — CHANNEL PROTECTION & FLOOD PROTECTION: THE ENGINEER HAS PROVIDED THE CITY OF ROANOKE WITH COMPUTATIONS SHOWING THAT THE PROPOSED REDEVELOPMENT WILL RESULT IN A REDUCTION OF IMPERVIOUS SURFACES, AND THEREFORE WILL YIELD LOWER RATES OF RUNOOF UNDER POST—DEVELOPMENT CONDITIONS THAN UNDER PRE—DEVELOPMENT CONDITIONS FOR ANY GIVEN DESIGN STORM. AS THERE IS NO INCREASE IN RUNOFF ASSOCIATED WITH THIS REDEVELOPMENT, THE REQUIREMENTS OF REQUIREMENTS OF 9VAC25—870—66 HAVE BEEN MET.

## VESCH TABLE 6-1: GENERAL EROSION AND SEDIMENT CONTROL NOTES:

ES-1: UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS 4VAC50-30 EROSION AND SEDIMENT CONTROL REGULATIONS

ES-2: THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE- CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.

ES-3: ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.

ES-4: A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

ES-5: PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS). THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING

ES-6: THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.

ES-7: ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.

ES-8: DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.

ES-9: THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUN-OFF PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

## CONSTRUCTION SEQUENCING - SITE SPECIFIC

DURING ALL PHASES OF THIS PROJECT, THE CONTRACTOR SHALL LIMIT LAND DISTURBANCE TO THE AREAS SHOWN HEREIN. ANY LAND DISTURBANCE, SOIL COMPACTION, OR ANY TYPE OF IMPACT TO THE SOILS BEYOND THE APPROVED LIMITS OF CONSTRUCTION MAY RESULT IN A STOP WORK ORDER, NEW DESIGN REQUIREMENTS, ADDITIONAL REVIEW TIME, AND ADDITIONAL CONSTRUCTION REQUIREMENTS.

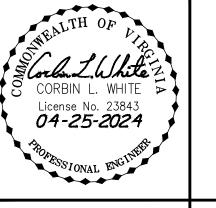
- 1. AS A FIRST STEP IN SITE DEVELOPMENT, THE CONTRACTOR SHALL INSTALL THE NEW SILT FENCE BARRIERS AND INLET PROTECTION MEASURES ON THE EXISTING GRATE INLET.
- 2. ONCE THESE PROTECTIONS ARE IN PLACE, THE NEW STORMWATER INLETS AND PIPING MAY BE INSTALLED, WITH INLET PROTECTIONS PLACED ON EASCH NEW INLET AS THEY ARE COMPLETED.
- 3. REMOVE EXISTING CRUSHED STONE. STRIP SURFICIAL SOILS FROM THE SITE, STOCKPILE AS NEEDED FOR ON-SITE REPLACEMENT, AND DISPOSE OF EXCESS AT AN APPROVED OFF-SITE FACILITY. PROVIDE SILT FENCE AT STOCKPILE PERIMETER AND PROVIDE TEMPORARY SEEDING OF STOCKPILE. UPON COMPLETION OF STRIPPING, CUTS AND FILLS MAY THEN PROCEED TO ROUGH GRADE FOR THE PRACTICE FIELD AND PARKING
- AREA. 4. UPON REACHING SUBGRADE, REPLACE TOPSOIL ON AREAS TO RECEIVE PERMANENT SEEDING. SEE SHEET C-05 FOR STABILIZATION
- REQUIREMENTS FOR THE PRACTICE FIELD. PLACE BASE STONE ON AREAS TO BE PAVED.
- 5. PROVIDE PERMANENT SEEDING AND WATER AS REQUIRED TO FOSTER GERMINATION. 6. ONCE THE SITE IS CONSIDERED STABILIZED BY THE CITY INSPECTOR, THE CONTRACTOR SHALL REMOVE THE TEMPORARY MEASURES AND
- PERMANENTLY STABILIZE THOSE AREAS AFFECTED BY REMOVAL OF TEMPORARY MEASURES.
- 7. ONCE THE SITE IS FULLY CONSTRUCTED AND STABILIZED, THE CONTRACTOR SHALL REQUEST PROJECT CLOSEOUT FROM THE CITY INSPECTOR.

## LAND DISTURBANCE NOTES

Revised April 25, 2024 Per First

City Review - C.L. White

ALL OFF-SITE DISPOSAL OF MATERIALS, AND ASSOCIATED FEES, WILL BE THE SITEWORK CONTRACTOR'S RESPONSIBILITY, AND IS TO BE PERFORMED IN A LEGAL FASHION (APPROVED WASTE SITE). ALL HAULING IS TO BE PERFORMED IN STRICT ACCORDANCE WITH LOCAL, STATE, AND FEDERAL RULES AND REGULATIONS PERTAINING THERETO.



EROSION CONTROL NARRATIVE. MEASURES & CONSTRUCTION SEQUENCING

EVENT OFFICIALS' PARKING AND LOWER

PRACTICE FIELD REGRADING PATRICK HENRY HIGH SCHOOL

ROANOKE CITY PUBLIC SCHOOLS SITUATE 2102 GRANDIN ROAD. SW CITY OF ROANOKE, VIRGINIA

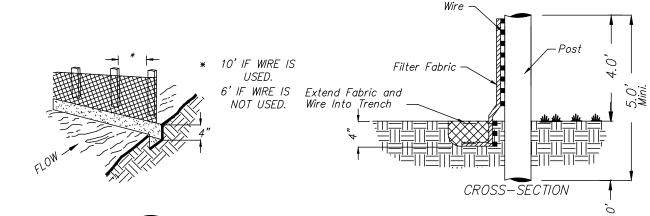
Designed: <u>C.L. White</u> Drawn: <u>C.L. White</u> Checked:\_ Date: <u>March 12, 2024</u> Tax Parcel: <u>1460101</u>

Field Book: Rke City #16

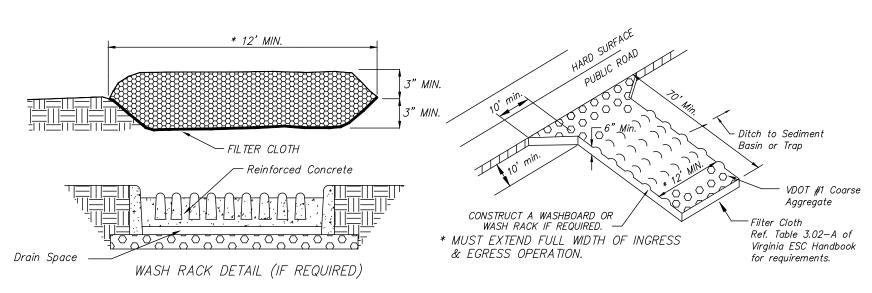
CALDWELL WHITE ASSOCIATES ENGINEERS / SURVEYORS / PLANNERS 4203 MELROSE AVENUE

P.O. BOX 6260 ROANOKE, VIRGINIA 24017-0260 (540) 366-3400 FAX: (540) 366-8702

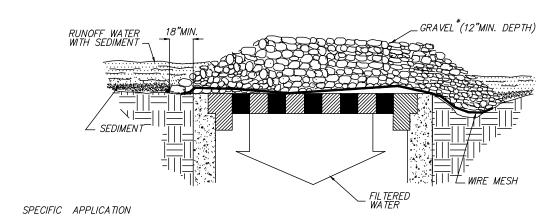
			ı
NO.	TITLE	KEY	SYMBOL
3.01	SAFETY FENCE	SAF	(SAF)
3.02	TEMPORARY GRAVEL CONSTRUCTION ENTRANCE	CE	
3.03	CONSTRUCTION ROAD STABILIZATION	CRS	(RS)
3.04	STRAW BALE BARRIER	STB	
3.05	SILT FENCE	SF	<del>-x x x x</del>
3.06	BRUSH BARRIER	BB	<del>(20000000)</del>
3.07	STORM DRAIN INLET PROTECTION		
3.08	CULVERT INLET PROTECTION	CIP	
3.09	TEMPORARY DIVERSION DIKE	DD	(D)
3.10	TEMPORARY FILL DIVERSION	FD	(FD)
3.11	TEMPORARY RIGHT—OF—WAY DIVERSION	RWD	(RWD)
3.12	DIVERSION	DV	(DV)
3.13	TEMPORARY SEDIMENT TRAP	ST	
3.14	TEMPORARY SEDIMENT BASIN	SB	
3.15	TEMPORARY SLOPE DRAIN	TSD	
3.16	PAVED FLUME	PF	(PF)
3.17	STORMWATER CONVEYANCE CHANNEL	SCC	-
3.18	OUTLET PROTECTION	OP	
3.19	RIPRAP	RR	
3.20	ROCK CHECK DAMS	CD	<b>→</b> ) → ) →
3.21	LEVEL SPREADER	LS	
3.22	VEGETATIVE STREAMBANK STABILIZATION	VSS	(vss)
3.23	STRUCTURAL STREAMBANK STABILIZATION	(SSS)	(555)
3.24	TEMPORARY VEHICULAR STREAM CROSSING	VSC	
3.25	UTILITY STREAM CROSSING	USC	
3.26	DEWATERING STRUCTURE	DS	<b>→</b>
3.27	TURBIDITY CURTAIN	TC	
3.28	SUBSURFACE DRAIN	SD	<b></b>
3.29	SURFACE ROUGHENING	SR	SR SR
3.30	TOPSOILING	70	70
3.31	TEMPORARY SEEDING	TS	75
3.32	PERMANENT SEEDING	PS	PS PS
3.33	SODDING	SO	\$50
3.34	BERMUDA GRASS AND ZOYSIAURASS ESTABLISHMENT	(BE/ZE)	B OR W
3.35	MULCHING	MU	MU >
3.36	SOIL STABILIZATION BLANKETS AND MATTING	$ \mathbb{A} $	TREAT. 1 TREAT. 2
3.37	TREES, SHRUBS, VINES AND GROUND COVERS	VEG	▼ (VEG) ►
3.38	TREE PRESERVATION AND PROTECTION	TP	7P
3.39	DUST CONTROL	DC	DC DC



SF CONSTRUCTION OF A SILT FENCE
(ST'D & SPEC 3.05)



# CE TEMPORARY GRAVEL CONSTRUCTION ENTRANCE (ST'D & SPEC 3.02)



This method of inlet protection is applicable where heavy concentrated flows are expected, but not where ponding around the structure might cause excessive inconvenience or damage to adjacent structures and unprotected areas.

\* Gravel shall be VDOT #3, #357 or #5 coarse aggregate.



DISTURBED AREAS SHALL BE PERMANENTLY SEEDED WITHIN SEVEN (7) DAYS OF ACHIEVING FINAL GRADE, OR ON DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE WITHIN ONE YEAR.

PERMANENT SEEDING SPECIFICATIONS FOR APPALACHIAN / MOUNTAIN AREA

LAND USE

MINIMUM CARE LAWN
(COMMERCIAL OR RESIDENTIAL)

PERENNIAL RYEGRASS (2)
KENTUCKY BLUEGRASS

TOTAL 200-250LBS/ACRE

HIGH-MAINTENANCE LAWN

MINIMUM OF THREE UP TO FIVE

VARIETIES OF KENTUCKY BLUEGRASS
FROM APPROVED LIST FOR USE IN

VIRGINIA(1)

TOTAL 125 LBS/ACRE

FROM APPROVED LIST FOR USE IN

GENERAL SLOPE (3:1 OR LESS)

TALL FESCUE (1)

RED TOP GRASS OR CREEPING RED FESCUE
2 LBS

SEASONAL NURSE CROP (3)

TOTAL 150 LBS/ACRE

LOW-MAINTENANCE SLOPE

(STEEPER THAN 3:1)

RED TOP GRASS OR CREEPING RED FESCUE 2 LBS

SEASONAL NURSE CROP (3) 20 LBS

CROWNVETCH (4)

TOTAL 150 LBS/ACRE

(1) WHEN SELECTING VARIETIES OF TURFGRASS, USE THE VIRGINIA CROP IMPROVEMENT ASSOCIATION (VCIA)
RECOMMENDED TURFGRASS VARIETY LIST. QUALITY SEED WILL BEAR A LABEL INDICATING THAT THEY ARE
APPROVED BY VCIA. A CURRENT TURFGRASS VARIETY LIST IS AVAILABLE AT THE LOCAL COUNTY EXTENSION
OFFICE OR THROUGH VCIA AT 804—746—4884.

AUGUST 16TH - SEPTEMBER, OCTOBER---- ANNUAL RYE

FERTILIZER & LIME

- APPLY 10-20-10 FERTILIZER AT A RATE OF 500 LBS/ACRE (OR 12 LBS/1000 SQUARE FEET) - APPLY PULVERIZED AGRICULTURAL LIMESTONE AT A RATE OF 2 TONS/ACRE (OR 90 LBS/1000 SQUARE FEET)

NOTE:

- A SOIL TEST IS NECESSARY TO DETERMINE THE ACTUAL AMOUNT OF LIME REQUIRED TO ADJUST THE SOIL PH OF SITE.

- INCORPORATE THE LIME AND FERTILIZER INTO THE TOP 4-6 INCHES OF SOIL BY DISKING OR OTHER MEANS.

- WHEN APPLYING SLOWLY AVAILABLE NITROGEN, USE RATES AVAILABLE IN "EROSION & SEDIMENT CONTROL TECHNICAL BULLETIN #4, 2003 NUTRIENT MANAGEMENT FOR DEVELOPMENT SITES" AT http://www.deq.virginia.gov/Portals/0/DEQ/Water/Publications/ESCTechnicalBulletin4.pdf.

MULCH:
IF REQUIRED, SHALL BE USED OVER ALL SEEDED AREAS AND SHALL BE APPLIED IN ACCORDANCE WITH SECTION 1.75
OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.

SOIL CONDITIONING:
INCORPORATION OF LIME AND FERTILIZER, SELECTION OF CERTIFIED SEED, MULCHING, MAINTENANCE OF NEW SEEDLINGS,
AND RESEEDING SHALL BE IN ACCORDANCE WITH SPECIFICATIONS CONTAINED WITHIN THE VIRGINIA SOIL EROSION AND
SEDIMENT CONTROL HANDBOOK, LATEST EDITION. ADDITIONAL SEEDING TO BE PERFORMED AS REQUIRED BY THE
INSPECTOR.

<u>SEED APPLICATION:</u>
APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER ON A FIRM, FRIABLE, SEEDBED. MAXIMUM SEEDING DEPTH SHALL BE 1/4 INCH.



DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A PERIOD OF MORE THAN 14 DAYS SHALL BE STABILIZED WITH TEMPORARY SEEDING MEASURES AS SHOWN HEREON, AND AS FURTHER DETAILED AS "STANDARD AND SPECIFICATION 3.31 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK", LATEST EDITION. IN ADDITION TO AREAS OF GENERAL GRADING THAT WILL NOT BE FINE—GRADED FOR GREATER THAN 14 DAYS, THE FOLLOWING SPECIFIC E&S MEASURES SHALL BE STABILIZED WITH TEMPORARY SEEDING IMMEDIATELY UPON COMPLETION OF CONSTRUCTION OF THE TEMPORARY MEASURE:

SUIL STOCKPILES
DIKES, DAMS, AND SIDES OF SEDIMENT BASINS
TEMPORARY ROADWAY EMBANKMENTS

SEEDING DATES MAY NOT REQUIRE MULCH.

PRIOR TO SEEDING, INSTALL NECESSARY EROSION CONTROL PRACTICES SUCH AS DIKES, WATERWAYS, AND BASINS. PROVIDE PLANTS AS SPECIFIED HEREIN, OR ENGINEER—APPROVED EQUAL.

LIME APPLICATION:
ADJUSTING THE SOIL PH BETWEEN 6.25 TO 6.5 IS EXTREMELY IMPORTANT FOR GRASS ESTABLISHMENT. A SOIL TEST IS
NECESSARY TO DETERMINE THE ACTUAL AMOUNT OF LIME REQUIRED TO ADJUST THE SOIL PH OF DENUDED SITES.
HOWEVER, WHEN A SOIL TEST HAS NOT BEEN PERFORMED, APPLY 2 TONS/ACRE (90 POUNDS/1,000 SQUARE FEET) OF
PULVERIZED AGRICULTURAL GRADE LIMESTONE.

FERTILIZER SHALL BE APPLIED AS 450 LBS/ACRE OF 10-10-10 OR EQUIVALENT NUTRIENTS. LIME (AS APPLICABLE)
AND FERTILIZER SHALL BE INCORPORATED INTO THE TOP 4 TO 6 INCHES OF SOIL BY DISKING OR OTHER MEANS. WHEN
APPLYING SLOWLY AVAILABLE NITROGEN, USE RATES AVAILABLE IN "EROSION & SEDIMENT CONTROL TECHNICAL
BULLETIN #4, 2003 NUTRIENT MANAGEMENT FOR DEVELOPMENT SITES" AT
http://www.deq.virginia.gov/Portals/0/DEQ/Water/Publications/ESCTechnicalBulletin4.pdf.

SURFACE ROUGHENING SHALL BE REQUIRED WHERE AREAS TO BE SEEDED HAVE BEEN COMPACTED, CRUSTED, OR HARDENED BY CONSTRUCTION TRAFFIC. AS REQUIRED, SEEDBEDS SHALL BE ROUGHENED IN ACCORDANCE WITH STANDARD AND SPECIFICATION 3.29 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. (TRACKING WITH BULLDOZER CLEATS SHALL BE USED IN SANDY SOILS)

SEEDING: SEED SHALL BE EVENLY APPLIED WITH THE SAME MEANS SPECIFIED HEREIN FOR PERMANENT SEEDING. SMALL GRAINS SHALL BE PLANTED NO MORE THAN ONE INCH DEEP. GRASSES AND LEGUMES SHALL BE PLANTED WITH NO LESS THAN 1/4" OF SOIL COVER.

MULCHING:
SEEDINGS MADE IN FALL FOR WINTER COVER AND DURING HOT AND DRY SUMMER MONTHS SHALL BE MULCHED
ACCORDING TO STANDARD AND SPECIFICATION 3.35 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK,
EXCEPT THAT FIBER MULCH MAY NOT BE USED. STRAW MULCH SHALL BE USED DURING THESE PERIODS.

TEMPORARY SEEDINGS MADE UNDER FAVORABLE SOIL AND SITE CONDITIONS DURING OPTIMUM SPRING AND FALL

RE-SEEDING: AREAS WHICH FAIL TO ESTABLISH VEGETATIVE COVER ADEQUATE TO PREVENT RILL EROSION SHALL BE RE-SEEDED AS SOON AS SUCH AREAS ARE IDENTIFIED.

ACCEPTABLE TEMPORARY SEEDING PLANT MATERIALS BY RANGE OF PLANTING DATES:

09/01 TO 02/15 ANNUAL RYEGRASS @ 50 LB / ACRE
WINTER RYE @ 50 LB / ACRE

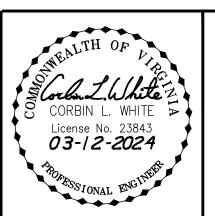
02/16 TO 04/30 ANNUAL RYEGRASS @ 100 LB / ACRE

TS) TEMPORARY SEEDING

(ST'D & SPEC 3.31)

## GENERAL EROSION AND SEDIMENT CONTROL NOTES

- 1. ALL SOIL EROSION & SEDIMENT CONTROL MEASURES SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS CONTAINED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, I ATEST EDITION
- 2. THE APPROVING AUTHORITY MAY ADD TO, DELETE, RELOCATE, CHANGE, OR OTHERWISE MODIFY CERTAIN EROSION AND SEDIMENT CONTROL MEASURES WHERE FIELD CONDITIONS ARE ENCOUNTERED THAT WARRANT SUCH MODIFICATIONS.
- 3. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE PLAN SHALL BE PLACED IN ADVANCE OF THE WORK BEING PERFORMED.
- 4. IN NO CASE DURING CONSTRUCTION SHALL WATER RUNOFF BE DIVERTED OR ALLOWED TO FLOW TO LOCATIONS WHERE ADEQUATE PROTECTION HAS NOT BEEN PROVIDED.
- 5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LEAVE THE SITE ADEQUATELY PROTECTED AGAINST EROSION, SEDIMENTATION, OR ANY DAMAGE TO ANY ADJACENT PROPERTY AT THE END OF EACH DAY'S WORK.
- 6. FOR THE EROSION CONTROL KEY SYMBOLS SHOWN ON THE PLANS, REFER TO THE VIRGINIA UNIFORM CODING
  SYSTEM FOR FROSION AND SEDIMENT CONTROL PRACTICES CONTAINED IN THE VIRGINIA FROSION AND SEDIMENT
- SYSTEM FOR EROSION AND SEDIMENT CONTROL PRACTICES CONTAINED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.



Scale: As Shown

Tax Parcel: <u>1460101</u>

W.O. No.: <u>23-0048</u>

Field Book: Rke City #16

DETAILS - SOIL EROSION & SEDIMENTATION CONTROL

EVENT OFFICIALS' PARKING AND LOWER PRACTICE FIELD REGRADING

PATRICK HENRY HIGH SCHOOL

FOR

ROANOKE CITY PUBLIC SCHOOLS

SITUATE 2102 GRANDIN ROAD, SW

CITY OF ROANOKE, VIRGINIA

Designed: C.L. White

Drawn: C.L. White

Checked: CALD

Date: March 12, 2024

CALDWELL WHITE ASSOCIATES

ENGINEERS / SURVEYORS / PLANNERS

4203 MELROSE AVENUE

4203 MELROSE AVENUE P.O. BOX 6260 ROANOKE, VIRGINIA 24017-0260 (540) 366-3400 FAX: (540) 366-8702

