

## **SENIOR ENGINEERING INSPECTOR**

775

**DEPARTMENT:** Development Management/Environmental Division

### **NATURE OF WORK:**

Performs advanced technical work in the oversight and inspection of site development for compliance with County's Erosion and Sediment Control Ordinance, Chesapeake Bay Preservation, and Wetlands Ordinances, Virginia Department of Transportation road standards and other environmental regulations.

Serves in a Lead Worker capacity for the Environmental Division Engineering Inspectors. Assists, coordinates, and provides oversight for the Inspectors in the enforcement of various County Ordinances and implementation of various Environmental Division programs and policies.

Provides technical assistance to the Environmental Director and other County staff. Work is performed under the general supervision of the Environmental Director.

### **ESSENTIAL FUNCTIONS OF THE JOB:**

Performs advanced inspections of subdivision and site plan construction sites on a daily basis to ensure that projects are in compliance with County Ordinances and approved plans. Advises engineers, developers and contractors of any problems or conflicts for correction and develops corrective action plans.

Reviews subdivision and site plans for compliance with County's Erosion and Sediment Control Ordinance, Chesapeake Bay Ordinance, stormwater management regulations, and other applicable construction standards and regulations.

Conducts field conferences and inspections with developers, contractors, engineers, homeowners groups, citizens, and planning and zoning personnel. Informs developers, engineers, and contractors of any problems or deviations from approved plans and specifications, and advises corrective action. If corrective action is not accomplished voluntarily, issues violation notices specifying corrective action required and participates in any other necessary enforcement proceedings.

Provides technical assistance to local developers, contractors, and engineers concerning the selection and installation of erosion and sediment control measures, and construction of stormwater management BMP (best management practice) facilities. Assists in the design of County initiated projects and provides advanced technical information for use in the design.

Maintains computer database of all inspections, project activity, enforcement actions, and a BMP facility inventory. Develops data from construction plans and field measurement for entry into the BMP database.

Reviews site and subdivision plans and determines erosion and sediment control, and subdivision performance surety amounts. Assists in the review and preparation of permit, surety, siltation, and other required documents. Monitors progress of projects and reduces surety amounts accordingly.

Provides construction supervision and contract administration for special projects as County assigned including County construction projects, drainage improvement/repairs, and projects resulting from utilization of developer's performance surety.

Acts in the absence of the supervisor, when designated.

Develops materials for and conducts a public education program regarding the function, operation, and maintenance of stormwater BMP facilities.

Performs work safely in accordance with departmental safety procedures and the County Safety Program. Operates equipment safely and reports any unsafe work condition or practice to supervisor.

Provides homeowners with assistance regarding drainage and erosion control problems, during construction as well as in established neighborhoods with existing homes.

Conducts final inspections of subdivision, site developments, and BMP facilities for erosion control and subdivision performance surety release.

Performs periodic inspections of stormwater BMPs and drainage structures to ensure the structures accomplish their intended function and are in conformance with County ordinances and approved plans. Advises engineers, developers, owners, and contractors of any problems or conflicts for corrections and develops corrective action plans.

Performs minor plan review, site analysis, and wetlands delineations.

Provides technical and informational assistance to the development community and general public on Environmental Division Programs and enforcement procedures.

Coordinates and assigns Engineering Inspectors with certificate of occupancy and single family inspection requests from Code Compliance.

Provides assistance to Engineering Inspectors involved in the inspections of subdivision and site plan construction sites, to ensure compliance with the County's Chesapeake Bay Ordinance, Erosion and Sediment Control Ordinance, Stormwater Management Regulations, Wetlands Ordinance and other Environmental Division programs and regulations.

Provides guidance for Engineering Inspectors in the interpretation of applicable laws, regulations, and division policy.

Assists Engineering Inspectors in cases of noncompliance with the County's environmental ordinances to expedite a resolution, minimize additional staff resources, and achieve uniform compliance. Promotes a team approach to enforcement.

Reviews Plans with Engineering Inspectors to insure that the inspectors are familiar with the proposed project and all of the environmental conditions and regulations that pertain to the project.

Works with Engineering Inspectors to promote consistency and compliance with division standards regarding the division's permitted work activities. Serves as a team leader in the development of standards and coordinates with the Environmental Director regarding the standards and their application.

Promotes and ensures proper employee training, assists staff in establishing training goals and objectives and makes recommendations for staff training.

Assumes inspection responsibilities of Engineering Inspectors in their absence.

Provides oversight and guidance to assigned staff on the implementation of new division programs.

Performs related work as required.

**JOB LOCATION AND EQUIPMENT OPERATED:**

Duties are performed at various construction sites and BMP facilities located throughout the County. Drives County vehicle to work sites. Requires extensive walking, frequently over rough terrain. Duties are frequently performed outdoors in all weather conditions.

**REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:**

Ability to organize project assignments and oversee inspection staff.

Ability to communicate effectively, both orally and in writing.

Extensive knowledge of environmental laws, regulations and ordinances.

Demonstrated ability to enforce environmental ordinances, laws and regulations.

Ability to deal effectively with enforcement violations and noncompliance cases and expedite investigations and resolutions.

Extensive knowledge of the principles and technical methods involved in erosion and sediment control, stormwater management and construction standards and specifications.

Thorough knowledge of the principles and practices of engineering as applied to the construction of subdivisions and other sites.

Advanced ability to interpret and comprehend complex blue prints, engineering plans and specifications.

Ability to analyze complex problems and resolve them.

Ability to make accurate mathematical calculations.

Ability to maintain records and prepare clear and concise reports.

Knowledge of word processing, spreadsheet and database computer programs.

Ability to perform taxing physical activity, including walking, climbing, stooping, and bending.

**MINIMUM QUALIFICATIONS:**

Graduation from a high school or equivalent, supplemented by college level courses in engineering, hydrology, hydraulics, soil conservation, some experience in engineering construction or soil conservation; experience in contract administration, dealing with the public, and knowledge of computers desirable, or any combination of education, and experience providing the knowledge, skills, and abilities cited above.

**NECESSARY SPECIAL QUALIFICATIONS:**

Must possess a valid Virginia driver's license and have an acceptable driving record based upon James City County's criteria.

# IDENTIFICATION OF GENERAL APTITUDES AND PHYSICAL REQUIREMENTS

Position Title Environmental Engineering Specialist Position Number 775  
Department Development Management Division Environmental Division

The Americans with Disabilities Act requires that we identify the general aptitudes and physical requirements needed to perform the job listed above. Individuals who have the position must be able to perform all essential job functions unaided or with reasonable accommodation.

**I. Mental Abilities:** General learning ability. The ability to “catch on” or understand instructions and underlying principles.

- Ability to understand and follow oral instruction
- Ability to understand and follow written instruction
- Ability to guide and/or give instructions
- Ability to make decisions in accordance with established procedures and policies
- Not essential to job function

**II. Verbal Abilities:** Ability to understand meanings of words and ideas associated with them and to use them effectively. To comprehend language, to understand relationships between words, and to understand meanings of whole sentences and paragraphs. To present information or ideas clearly.

**1. Speaking/Talking:**

- Answering telephone, radio, or switchboard
- Communicating with County officials
- Communicating with general public
- Communicating with vendors
- Communicating with supervisors and/or with other employees
- Communicating with others \_\_\_\_\_
- Not essential to job function

**2. Hearing/Listening:**

- For communication with County officials, public, vendors, supervisors and/or other employees
- Not essential to job function

**3. Reading:** (ability to read and understand text)

- Essential to job function
- Not essential to job function

**III. Numerical:** Ability to perform arithmetic operations quickly and accurately.

- Ability to mentally perform accurate two digit calculations
- Ability to perform accurate calculations aided by a calculator, adding machine or measurement device

**IV. Spatial Abilities:** Ability to comprehend forms in space and understand relationships of plane and solid objects. May be used in such tasks as blue print reading and in solving geometry problems. Frequently described as the ability to “visualize” objects of two or three dimensions, or to think visually of geometric forms.

- Essential function
- Not essential function

**V. Motor Coordination:** Ability to coordinate eyes and hands or fingers rapidly and accurately in making precise movements with speed. Ability to make a movement response accurately and quickly.

**1. Manual Dexterity:** Ability to move the hands easily and skillfully. To work with the hands in placing and turning motions.

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Use telephone      | <input checked="" type="checkbox"/> Manipulate computer keyboard and mouse |
| <input type="checkbox"/> Use switchboard               | <input type="checkbox"/> Use postage machine                               |
| <input type="checkbox"/> Use radio/console             | <input checked="" type="checkbox"/> Use hand tools                         |
| <input checked="" type="checkbox"/> Use a calculator   | <input type="checkbox"/> Use power tools                                   |
| <input checked="" type="checkbox"/> Use a copy machine | <input checked="" type="checkbox"/> Other: <u>Use surveying equipment</u>  |
| <input checked="" type="checkbox"/> Use a fax machine  | <input type="checkbox"/> Not essential to job function                     |

**2. Finger Dexterity:** Ability to move the fingers and manipulate small objects with the fingers rapidly or accurately. For example: electrical wiring.

- Essential to job function
- Not essential to job function

Explain: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**VI. Physical Demands:**

1. **Strength:** The quality, state or property of being strong. The power to withstand strain, force or stress.

Please check (✓) in appropriate boxes below.

	Ability to manipulate materials and/or equipment (lbs)						Frequency of Manipulation		
	5-	5-10	10-15	15-25	25-50	50+	Occasionally	Frequently	Continuously
<b>Lift</b>				✓				✓	
<b>Push/Pull</b>			✓					✓	
<b>Hold/Carry</b>				✓				✓	

Manipulation done from:  ground to waist  waist level  waist to shoulder  above shoulder  
(Check all that apply)

Not essential to job function:  Lift  Push/Pull  Hold/Carry (Check all that apply)

2. **Climbing:** To move up or mount by using the hands or feet.

**Ladders**

**Stairways**

**Steps**

- Step stool
- 8' to 10' step ladder
- Extension ladder
- Other \_\_\_\_\_

- 1 flight
- 2 flights
- 3 or more flights
- Other \_\_\_\_\_

- 1-2
- 2-3
- 3-4
- Other occasional need to

climb into and out of structures during inspections

- Not essential to job function
- Not essential to job function
- Not essential to job function

3. **Ability to Stand, Sit, Walk, and Run:**

Please check (✓) in appropriate boxes below.

	Duration (hours/day)						Occasionall	Frequently	Continuousl
	0-1	1-3	3-5	5-7	7-9	9+			
<b>Stand</b>		✓							
<b>Sit</b>			✓						
<b>Walk</b>		✓							
<b>Run</b>									

If walking or running, over what type of terrain?  flat  rough  both

Not essential to job function:  Stand  Sit  Walk  Run (Check all that apply)

**4. Stooping, Kneeling, Crouching, and /or Crawling:**

To bend forward or down from the middle of the waist or the middle of the back, to bend downwards, to lower oneself and/or to move freely on hands and knees.

**Daily Amounts**

- 0-5x                       5-20x                       20-50x                       50+x  
 Other \_\_\_\_\_                       Not essential to job function

**5. Reaching, Handling, Fingering, and/or Feeling:**

To stretch out, extend, or put forth a bodily part. To touch or grasp something, by extending or stretching. To touch, lift, hold or operate with the hands.

**Daily Amounts**

- 0-5x                       5-20x                       20-50x                       50+x  
 Other \_\_\_\_\_                       Not essential to job function

**6. Seeing: To perceive or comprehend by the sense of sight.**

- Essential to job function: These characteristics are necessary (Check all that apply)  
 Peripheral vision  
 Night vision  
 Focus (distinctness or clarity)  
 Color perception (discriminate between colors)  
 Depth perception (determine distance relationship between objects)

**VII. Driving: The ability to transfer or convey in a vehicle.**

<b>Transmission</b>	<b>Standard</b>	<b>Automatic</b>	<b>Multi-Gears</b>
Car	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Van	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Small Truck	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Medium Truck	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Large Truck	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Truck w/Equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heavy Bus Equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not essential to job function	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (list) _____			