



MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
RECRUITMENT &
EXAMINATION DIVISION



At the **Maryland State Highway Administration** (SHA), we are proud of our tradition of excellence. Since its inception as the State Roads Commission in 1908, SHA has continued to build on its foundation of quality and integrity. 2008 SHA and partners celebrated the 100th Anniversary of modern road building in Maryland. At SHA we have exciting entry and advanced level Civil/Transportation Engineering opportunities available.



Why choose SHA?

As an employee in one of our diverse career tracks, you may lead complex, multi-disciplinary projects as well as have the opportunity to serve on nationally scaled initiatives. Individuals within one year of completing a Bachelor of Science in Civil Engineering are encouraged to apply!

Benefits

Transportation Engineer Salary

- \$49,000+ starting salary
- Steady growth

Leave

- Two weeks vacation after first year, three weeks after five years, four weeks after 10 years, and five weeks after 20 years
- Seven personal days per year
- 10 paid holidays per year
- Three weeks earned sick leave each year
- Military leave, legal leave, and cash overtime

Health Plan Options

- Medical, prescription, dental, vision, and term life insurance
- Personal accident & dismemberment insurance
- Flexible spending accounts
- Competitive state subsidy for benefit plans (80 percent of cost)

Retirement Plans

- Employees are vested in the contributory pension plan after ten years of service
- 30 year service retirement
- Supplemental retirement plans 401(k) and 457 available

EIT/PE exams

- Review classes are available for the EIT/PE exams
- Possible reimbursement for PE exam with a passing grade

Education/ Training

- Individualized professional development plans
- Tuition reimbursement for approved courses
- Advanced Education Program for approved graduate programs
- Option to attend courses during work hours only if offered during working hours (up to six hours a week of administrative leave at supervisor's discretion)
- Graduate Engineer's Training Program
- Supervisory Training Program
- Leadership Development
- Online Learning

Additional Benefits

- Free public transportation services
- State Employees Credit Union (SECU) membership for employee and family



The Maryland State Highway Administration (SHA), a modal of the Maryland Department of Transportation (MDOT), is responsible for more than 16,000 lane miles of interstate, primary and secondary roads and more than 2,500 bridges. SHA employees plan, design, build and maintain these roads and bridges to the highest safety and performance standards possible while paying close attention to sociological, environmental, ecological and economic concerns. SHA employs 3,200 people at our Baltimore headquarters, Hanover complex, Hunt Valley and seven districts throughout the state. The Baltimore headquarters location includes Office of Environmental Design, Office of Chief Engineer, Office of Equal Opportunity, Office of Communications, Office of Highway Policy and Technology Utilization, Office of Planning and Preliminary Engineering, Office of Highway Development and Office of Structures as well as the offices of Real Estate, Finance and Information Technology, Legal Counsel and Administration. The Hanover complex, located in Hanover includes the offices of Maintenance, Traffic and Safety as well as the Statewide Operations Center. Additionally the complex houses the Office of Construction and Office of materials Technology. Our seven district offices handle most of the day-to-day responsibilities of constructing and maintaining highways in Maryland's 23 counties, while the Office of Traffic & Safety (OOTs) installs and maintains all SHA signal systems. Roadway signs are manufactured by OOTS, but the majority of sign maintenance occurs at the district level. Similarly, the Office of Materials Technology tests and investigates construction and maintenance materials, assisted by four regional labs throughout the state.

Application & Interview Process

The State Highway Administration is both an exciting and dynamic place to work! We are proud of our tradition of excellence and hold only the highest standards of professionalism, honesty, and integrity. We strive for continuous improvement in our products, while maintaining customer satisfaction as a primary goal. At SHA, we have exciting and advanced level Civil/Transportation Engineering opportunities available in a variety of areas including Office of Structures, Bridge Hydraulics, Construction Inspection, Highway Design, Highway Hydraulics, Planning & Preliminary Engineering, Traffic & Safety, Materials Technology, and Land Surveying Engineering.

General Information

Filling out the Application. You have the option of completing this application packet and mailing it in or applying online at <http://jobs.mdot.state.md.us>. Your application, including résumé and transcripts, is evaluated using a structured system of scoring. Office-specific as well as general classification requirements must be reviewed and evaluated to ensure a fair and unbiased appraisal of your employment potential. Because we rely so heavily on the accuracy and completeness of your application and the potential score derived from its evaluation, it is important that you fill out the application in its entirety. Incomplete applications will delay the process and may result in your application not being considered for employment.

The Evaluation Process.

Please note: Your application will not be reviewed until all information is received. When applying for the Transportation Engineer I position, all required information (including transcripts) must be submitted within 60 days of your initial application.

It may take a few weeks to process your application, but do not hesitate to call us to ensure we have received it and to track its progress (410-545-5552 or toll-free at 1-877-743-9311). If your qualifications match up with what we need, and we have a position open in the area(s) you selected, we may contact you for an interview. A majority of our positions are available in Baltimore City and Baltimore County. If an area you have selected for an interview does not have any available openings at the time of your application, we will keep your application on file until September 30, 2012.

The Interview Process. Typically, you will be contacted two (2) weeks prior to scheduling your interview (via email) to complete your writing sample. Interviews are generally the last Thursday of each month. Additionally, because offices only interview when they have vacancies, you may be contacted for an interview during future months. If you apply to multiple offices (i.e., Planning Design Division and Office of Structures), you could receive interviews and/or offers at different times; please keep this in mind when evaluating an initial offer. Most interviews are held at SHA headquarters located in Baltimore, Maryland, but you can opt to complete the interview via phone if you are unable to come to this location,

Revised on 8/8/11



(Applicants must live at least 300 miles round trip to be considered for a phone interview). Whether interviews are completed in Maryland or via telephone, no supporting resources shall be used by the candidates to respond to the questions.

Writing Sample

All applicants are required to complete the State Highway Administration Transportation Engineer I Writing Sample. This must be done before scheduling and interview. All applicants must be in front of a computer at the time of the Writing Sample and will have 45 minutes to complete and e-mail back to the Recruitment & Examination Division. This must be done between the business hours of 7:00 a.m. and 3:00 p.m., Monday through Friday, excluding Holidays. Writing samples are to be completed independently by the candidates without feedback or input from any other source.

What to Expect on the Interview

Our interview process is much different than what one might expect or read about in preparing for a job interview. The interview will be conducted by a panel of three to five employees and be composed of two parts:

1. The Informational Section

This portion of the interview is informal and will not be used to evaluate your performance. We will begin with an overview of the office and the position for which you are interviewing, and then discuss general questions you may have. There is a time limit on the interview, so don't spend too much time on this portion. If you receive an offer, you will be encouraged to come back and visit the office to learn much more about our organization and culture before you make a final decision.

2. The Test Section

Like the application, this portion of the interview is structured and scored to ensure a fair and unbiased appraisal of your performance. During this portion of the interview the panel may take turns reading prepared questions. They will be looking for certain benchmarks in your answers, but will not provide you with feedback on your answers. Be as thorough as possible. You may be asked questions regarding customer service, diversity, your general background, and your technical skills. The technical questions may be related to coursework, computer skills, school projects, or other areas that will demonstrate your understanding of basic concepts related to the position. Each candidate is given the same list of questions for that particular office or division.

Please Note: Effective June 30, 2009 The Maryland State Highway Administration will no longer sponsor new employees in application of the H-1B Visa. All applicants must be legally authorized to work in the United States under the Immigration and Reform Control Act of 1986. The incumbent in this position will be a member of a covered bargaining unit and will be required to pay a bi-weekly service fee to the exclusive representative of the bargaining unit.

**Maryland Department of Transportation
State Highway Administration**

TRANSPORTATION ENGINEER I - APPLICATION PACKET

MINIMUM QUALIFICATION:

You must possess an Accredited Bachelor's Degree in Civil Engineering or be completing the degree requirements within the next twelve (12) months. All applications that do not meet this minimum qualification will not be processed.

The information you provide in this application packet will be used to place you on a list of eligible candidates for each section in which you are interested (refer to page 5). Please read the directions for each section carefully before beginning that part of the application.

If you have any questions, please call the Recruitment and Examination Division at 410-545-5552 or toll free at 1-877-743-9311. Please send all completed materials to:

RECRUITMENT AND EXAMINATION DIVISION
707 N. CALVERT STREET, ROOM C-602
BALTIMORE, MD 21202

CHECKLIST (✓) FOR PACKET COMPLETION:

- Application for Employment (page 2)
- Education and Coursework (page 3)
- Relevant Experience (page 4)
- Oath Attesting to Accuracy of Information (page 4)
- Employment Options (page 5)
- Transcripts (may be unofficial) from all Accredited Colleges/Universities where you completed engineering related courses. This should include all junior or community colleges.
- Foreign Education Credential Evaluation, if applicable (refer to page 3)
- Current Résumé (résumés alone will not be accepted and can be more than 1 page), which **must** include:
 - All Colleges/Universities attended
 - Engineering employment, including specific duties (refer to the top of page 4)
 - Two (or more) business/academic references, including name, title, address and phone
 - E-mail address and/or fax number where you can be reached

Name _____ Last four Digits of SSN _____

Application for Employment Transportation Engineer I

OFFICE USE ONLY
____ APPROVED
____ DISAPPROVED
____ PENDING
____ BY
____ REASON

Please fill out this application completely. Omissions may result in your application not being considered for employment. Résumés may **NOT** be substituted for this application. Type or print clearly. Information provided is confidential and will only be used by authorized personnel. Applicants who are within twelve (12) months of receiving a Bachelor's degree in Civil Engineering can be approved for the process **pending completion** of the degree. Qualified applicants may be subject to background and reference checks.

Last four Digits Social Security Number: _____ Phone # where you can be reached during your University or College's winter break: () _____

Print Name: _____
Last First Middle

Address: _____

City County State Zip Code

Home Phone: () _____ Work Phone: () _____ E-mail: _____

Please check (✓) where you will accept employment.

- ___ Garrett
- ___ Allegany
- ___ Washington
- ___ Frederick
- ___ Carroll
- ___ Montgomery
- ___ Baltimore City
- ___ Baltimore County
- ___ Howard
- ___ Harford
- ___ Cecil
- ___ Kent
- ___ Prince Georges
- ___ Charles
- ___ Calvert
- ___ St. Mary's
- ___ Anne Arundel
- ___ Queen Anne's
- ___ Talbot
- ___ Caroline
- ___ Dorchester
- ___ Wicomico
- ___ Somerset
- ___ Worcester

How did you hear about us? Please check (✓).

- ___ Newspaper
- ___ College recruitment
- ___ Employment office
- ___ Bulletin Board
- ___ Heard about from an employee
- ___ Interest File
- ___ Internet (please list which site): _____
- ___ Other (specify): _____

Please check (✓) availability below.

- ___ Full-Time Employment Only
- ___ Part-Time Employment Only
- ___ Full-Time and/or Part-Time

Did you graduate from high school or have you obtained a GED?

___ Yes ___ No ___ Year
Name of High School _____
Address _____

Applicants are requested to voluntarily provide the information below for statistical purposes only. Failure to do so will not affect your chances for employment.

- ___ Male
- ___ Female

Ethnic/Race Identification

- ___ Hispanic or Latino Origin
- Select one or more of the following races. If multiracial, check all that apply.
- ___ American Indian or Alaska Native
- ___ Asian
- ___ Black or African American
- ___ Native Hawaiian or Other Pacific Islander
- ___ White

Birth Date: _____

Languages Spoken:

AN EQUAL OPPORTUNITY EMPLOYER
www.marylandtransportation.com

Arrangements and/or accommodations will be provided upon request for differently-abled persons.
Maryland Relay Service - www.mdrelay.org - (voice) 1-800-201-7165, (TTY/HCO) 1-800-735-2258, (Spanish) 1-800-877-1264

Name _____ Last four Digits of SSN _____

Education and Coursework

Transportation Engineer I

If you have not already obtained copies of all your college/university transcripts to enclose with this application, you or your college/university must submit your transcripts to us as soon as possible after submitting your application.

If any of your colleges/universities had a “non-traditional” credit allotment system or schedule (i.e. trimester classes, less than 120 credits to graduate, etc.), please explain that system in the space provided below. You may attach an additional sheet, if necessary.

Additional Coursework (not listed on transcripts):

Please list below all engineering courses that do not appear on your transcripts. Specifically, focus on those courses you are taking now or will be completing within the next 12 months.

Course Title	Course #	# of credits	Date to be completed

Your University Registrar's phone number: () _____

IMPORTANT NOTICE TO ALL APPLICANTS WITH FOREIGN EDUCATION CREDENTIALS

As the State Highway Administration does not evaluate foreign school credentials, **you must contact an independent evaluation service**, such as the services listed below.

To determine whether your foreign school credentials are equivalent to a college education in the United States and to help us review your transcripts fairly, you will need to have your foreign school credentials evaluated on a **course by course basis**.

World Education Services, Inc.
P.O. Box 57206
Washington, D.C. 20037
phone number: 1-800-937-3897
www.wes.org

Evaluation Service, Inc.
P.O. Box 1455
Albany, NY 12201
phone number: 518-672-4522
fax number: 518-672-4877

Education Credential Evaluation
P.O. Box 514070
Milwaukee, WI 53203-3470
Fax: (414) 289-3411
e-mail: eval@ece.org
www.ece.org

Please remember that it remains necessary for you to submit copies of all transcripts from your undergraduate and/or graduate programs. If we do not receive this information as requested, your application will **NOT** be considered as meeting the minimum degree requirements and will result in disqualification from the application process.

Name _____ Last four Digits of SSN _____

Relevant Experience
Transportation Engineer I

Résumé:

On your résumé, please list and describe all previous civil/transportation engineering related jobs you have held, starting with your most recent. For every job, include the company name and phone number, your job title and dates of employment, number of hours worked per week, number of persons supervised and your reason for leaving. Please also include your specific job duties.

Advanced Engineering Licenses:

Please check (✓) each appropriate box if you have registered to take or have passed any of the following examinations.

Professional Examination	Registered to Take	Passed	Date of Exam (Month/Year)
Engineering in Training/Fundamentals in Engineering			
Surveyor in Training			
Fundamentals of Surveying			
Professional Land Surveying			
Professional Engineer			
Other:			
Other:			

Engineering/Professional/Social/Community Organizational Offices Held:

Please list below all professional organizations in which you have held a leadership role. Be as specific as possible regarding the dates of offices held.

Organization	Office Held (i.e. President/Secretary)	Dates of Office

Oath Attesting to Accuracy of Information
Transportation Engineer I

I understand that this Application Packet and all attachments to it are a part of my examination and the oath attesting to the accuracy of my application applies to all information presented in this package and attachments. I also understand that any misleading or inaccurate information will result in not receiving credit for that element of my score and/or disqualification from the application process. I further understand that the elements as described above will be used to compute my final score. In addition, I understand that qualified applicants may be subject to background and reference checks.

Printed Name _____ Date _____

Signature _____

Transportation Engineer I - Employment Options (page 1 of 2)

Please select the engineering area(s) in which you would accept employment. This allows hiring managers to review only those candidates who are seeking a career in their particular section. Please be sure to select all areas in which you would accept employment as you will not be able to change your options until after your name expires from our list.

If you want to learn more about the offices listed below, please go the web site listed below:

<http://www.sha.maryland.gov/index.aspx?PageId=90>

Select only if you have the knowledge, relevant coursework, and desire to work in that section. You may check more than one area.

OFFICE OF STRUCTURES

Structural Design. This office is responsible for design, inspection, and maintenance of all bridges in the State system. **Coursework in Structural Analysis, Steel Design, Concrete Design, and one of the following: Foundation Design, Geotechnical Design, or Soil mechanics, is required.** I have the knowledge, relevant coursework, and desire to work in this section.

Structure Hydrology and Hydraulics Division. In this division, engineers typically perform hydrologic and hydraulic studies of large streams/ rivers with over one square mile in drainage area. This includes hydraulic design of bridges and culverts, scour studies, and flooding evaluations. **Coursework in Hydrology and Open Channel Flow, and a minimum of two (2) of the following is required: Water Resource Engineering, Geographic Information Systems (GIS), Surveying, Hydraulic Structures, River Mechanics, Sediment Transport, Stream Channel Instability, Advanced Hydrology, Advanced Open Channel Flow, or a Water Resources Focused Seminar/Capstone Course is required.** I have the knowledge, relevant coursework, and desire to work in this section.

OFFICE OF HIGHWAY DEVELOPMENT

Highway Design. The Highway or Community Design, or Innovative Contracting Divisions, are responsible for the **geometric design** of roadways across the state, as well as design project management (design, schedule and budget) for a variety of projects. **Coursework in Highway/Geometric Design or Transportation Engineering (for highways) is required.** I have the knowledge, relevant coursework, and desire to work in this section.

Highway Hydraulics. This division is responsible for hydrologic and hydraulic analyses of small (under one square mile) drainage areas. Responsibilities include design, emphasizing sustainability and innovation of storm drains, stormwater management facilities (such as bioretention), and culverts. **Coursework or academic-related research in at least three (3) of the following: Open Channel Hydraulics, Hydrologic Engineering, Environmental Engineering, Water Resources Engineering, Hydrology, Hydraulics, Water Chemistry, Erosion and Sediment, Watershed Modeling, Stream Morphology, River Engineering, Water and/or Wastewater Treatment, Stormwater Management, Pollutant Modeling, or GIS Analysis, is required.** I have the knowledge, relevant coursework and desire to work in this section.

Land Surveying. This division is made up of two is sections: Survey (responsible for topographic, metes & bounds, photogrammetric, geodetic control layout, hydraulic, and construction/right of way stake-out surveys) and Plats (develops SHA right of way plats for the acquisition and conveyance of real property; responsible for property line analysis, survey data processing, and land records research). **Coursework in Plane Surveying, Surveying Computations (horizontal curves, spirals, COGO), Survey Boundary Law, and Geodetic/Traverse Control is required.** I have the knowledge, relevant coursework, and desire to work in this section.

Name _____ Last four Digits of SSN _____

Transportation Engineer I - Employment Options (page 2 of 2)

OFFICE OF PLANNING & PRELIMINARY ENGINEERING. This office is responsible for obtaining location, design, and environmental approvals for State highway improvements. A new engineer in the Project Management Division would be responsible for conducting preliminary engineering, giving presentations to and coordinating with other internal SHA offices, local government representatives, elected officials, community representatives and environmental agencies on key project related issues. Engineers also perform comprehensive planning, community liaison functions and transportation studies. I have the knowledge, relevant coursework, and desire to work in this section.

OFFICE OF TRAFFIC & SAFETY. This section is responsible for the study, planning, design, installation and operation of all traffic control devices along the State system. **Coursework in Traffic and Transportation Engineering is necessary.** I have the knowledge, relevant coursework, and desire to work in this section.

OFFICE OF MATERIALS TECHNOLOGY. This section is responsible for the management and design of geotechnical and pavement structures, engineering and evaluation of geologic features, as well as the testing and inspection of constructed and fabricated materials used in the construction and maintenance of roads and bridges. **Applicants should have coursework in Pavement Design/Management, Geotechnical Engineering, and the Material Sciences.** I have the knowledge, relevant coursework, and desire to work in this section.

OFFICE OF CONSTRUCTION

Construction Inspection. The Construction Inspection Division's (CID) goal is to have the Transportation Engineers it hires to progress to Project Engineers (PE) on major construction projects. These projects include multi-million dollar contracts for highways, bridges and interchange construction. To facilitate your progression to the PE level you will be enrolled in our Transportation Engineer Rotation Program. This self-directed four year program is designed to help the entry level engineer learn about the various aspects of construction management and administration. I have the knowledge, relevant coursework, and desire to work in this section.

**Thank you for your interest in employment with
the Maryland State Highway Administration.**