



# **ENGINEERS & SURVEYORS INSTITUTE**

## **2018 EDUCATION PROGRAMS**

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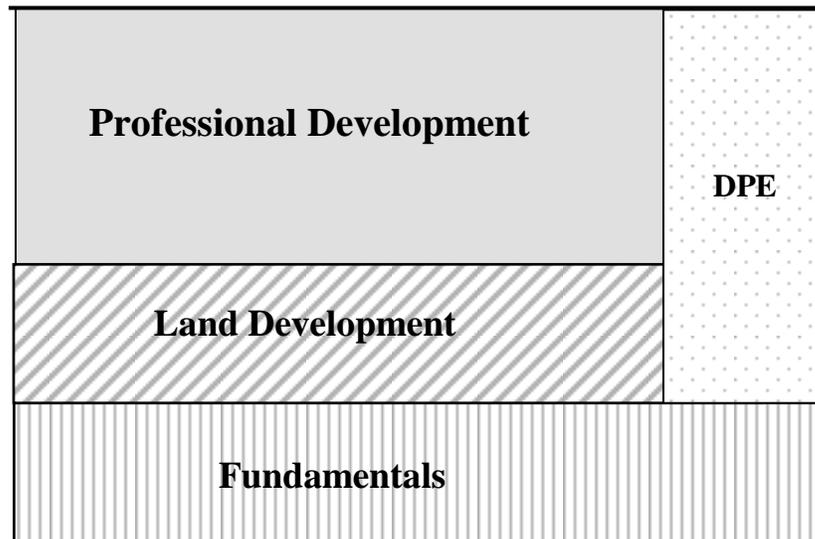
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## INTRODUCTION TO ESI EDUCATION PROGRAMS

The continually changing demands of our industry require both public and private organizations to have employees with the skills and knowledge to respond to a variety of needs—often on short notice. To help these organizations stay abreast of these diverse educational demands, ESI has structured educational programs tailored for practicing professionals of all skill levels and technical disciplines.

ESI education programs use the **Knowledge for All Levels** approach, the organization of which is depicted in the figure below:



Put simply, our programs offer education opportunities for professionals throughout their lifetime of practice, from Fundamentals through Professional Development to Symposia and Seminars on “hot topics” as they arise.

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*Which courses should I take?*

**FUNDAMENTAL EDUCATION PROGRAM**

**Land development professionals** who have little experience working in Northern Virginia (or those who *work with* land development professionals) should explore the Fundamental Education Program. The two-day course, **Fundamentals of Land Development in Northern Virginia**, is tailored to individuals who have the technical knowledge base associated with an undergraduate degree, minimal practical experience, or a lack of familiarity with the policies and practices of Northern Virginia's jurisdictions. (See page 14 for more information on this course.)

**LAND DEVELOPMENT ENGINEERING (LDE) PROGRAM**

**Land development professionals** looking for a more comprehensive approach should consider the two-semester **Land Development Engineering (LDE) Program**. These classes provide a basic level of understanding of land development engineering associated with land development plan design and review. Successful completion of these two semesters, plus the two-day **LDE Jurisdictional Sequence** for each jurisdiction in which one intends to become certified, is required before applying to obtain the **Designated Plans Examiner (DPE) Certification** (detailed information regarding the DPE Certification Program begins on page 9). (See pages 14-17 for more information on the LDE Program.)

**Note:** Those interested in specific aspects of land development may enroll in **individual classes** (piecemeal sequence) or an entire semester in the Land Development Engineering Program. Contact ESI for details.

## **PROFESSIONAL DEVELOPMENT (PD) PROGRAM**

**Experienced land development professionals** should consider the Professional Development Program. These classes, with annually changing topics requested by our members, provide information of a more advanced and detailed nature about the most relevant subjects within the land development and surveying professions. They address general and jurisdictional issues that directly relate to the practical application of the various professional skills associated with the industry. (Information on current PD offerings begins on page 18.)

**GENERAL EDUCATION CLASSES (PD ELECTIVES)** include various technical engineering, plan design, and surveying subjects that are of interest to the ESI membership. Some of these classes are specific to the local jurisdictions of Northern Virginia.

**JURISDICTIONAL POLICY & PROCEDURE (P&P) UPDATE CLASSES** address changes to the plan design and review policies, regulations, ordinances and procedures which have occurred over the last year in local jurisdictions, as well as common errors and misconceptions which impede plan approval in those jurisdictions.

**SYMPOSIA & SEMINARS** are offered as needed to quickly provide the latest information or techniques on key technologies, processes, and practices in land development design. These concentrated, fast-paced programs afford members a comprehensive conduit to the latest techniques and requirements surfacing in the land development arena.

**ALTERNATE EDUCATIONAL OPPORTUNITIES** provide additional options to members for receiving credit for General Education Classes (PD Electives). These opportunities require ESI approval, as indicated, for authorization to obtain credit as a PD Elective.

**Note:** ESI classes meet standards set forth in the Commonwealth of Virginia (and other states) to comply with continuing education requirements for professional licensing renewal or reinstatement. Professionals always have the responsibility to determine the relevance of any class to their areas of practice.

## ENROLLMENT/CANCELLATION OF ENROLLMENT IN ESI CLASSES

### Land Development Engineering Program & Fundamental Education Program:

Please contact ESI to enroll/cancel enrollment in either of these programs.

### Professional Development Program:

Members may enroll in General Education Classes (PD Electives) by following instructions **#1-6** below. To cancel enrollment, follow instructions **#6-7** below.

1. Go to <http://esinovatraining.webex.com> (Do not use a www prefix.)
2. On the **Live Sessions\*** page, type **pd** in the **Search** box, and click **Search**.  
\*All of these classes are conducted in ESI's classroom unless otherwise noted.
3. On the **Search Results** page, classes are arranged in chronological order. To see a class description, click on the blue underlined class title link.
4. To enroll, click **Register**, and then enter the **Registration Password** received in an email from ESI.
5. On the **Register** page, fill in the **Registration Information** boxes, click **Register**, and then click **OK**.
6. You will receive an email confirming your registration. Do not delete this email as it provides a link to cancel your enrollment—and it is the only way in which you may cancel your enrollment in that class.
7. To **cancel your enrollment** at any time, you only need to click on the cancellation link in the registration acknowledgement email that you received when you enrolled in the class. After you cancel, you will receive another email to confirm that transaction.

### *Class Attendance Policy*

Under its charter with the Commonwealth of Virginia to provide quality educational programs, it is important that ESI verify attendance of individuals at all classes. This requires maintaining an auditable system of attendance validation. ESI uses sign-in and sign-out rosters at the beginning and end of classes to accomplish this. Consequently, those enrolled in a class are requested to avoid conflicts which may require them to arrive late or leave early.

### *Class Cancellation Fees*

Individuals who must miss a class are requested to cancel their enrollment **at least one business day in advance of the class** (see instructions for cancelling on page 7.) Those who fail to do so may be **charged a \$75 administrative fee** to help defray the resulting cost of additional time and effort incurred by staff.

### *Class Assessments*

Assessments are important activities administered during ESI classes to determine the student's success in understanding the main points of the presentation and achieving its learning objectives. These assessments may be comprised of, although are not limited to, quizzes, practical exercises, group work, presentations, and exams.

### *Make-Up Class Fees*

**A \$75 administrative fee may be charged per Make-Up Class** to fulfill annual education requirements for maintaining DPE status. This fee helps defray the additional time and expense incurred by staff to produce Make-Up Classes.

## DPE CERTIFICATION PROGRAM

The Engineers and Surveyors Institute (ESI) operates under a Commonwealth of Virginia charter to promote the production of quality engineering plans and the expedited plan review process in jurisdictions throughout Virginia. Key to this process is the role of the Designated Plans Examiner (DPE).

### *DPE Certification*

The **Designated Plans Examiner** certification verifies that the holder is competent in the design, preparation, and submission of land development plans, thus allowing participation in an expedited process not available to non-certified practitioners.

From the *education* perspective, there are two categories of DPE status.

1. **DPE-Eligible**: An individual who has completed the initial education requirement, but who has not yet applied for and/or been approved as a DPE, is considered “**DPE-eligible**.”
2. **DPE-Certified**: An individual who has completed the initial education requirement and all other applicable prerequisites, and has applied for, been approved, and has received a DPE number, is considered “**DPE-certified**” and is simply referred to as a DPE.

**Before applying to obtain the Designated Plans Examiner (DPE) certification**, professionals must meet the following criteria:

- Possess a **BS degree in Civil Engineering** (or a related field) or six years of experience in plan design or review.
- Successfully complete the **Land Development Engineering Program**, which includes **Semesters 1 & 2** and the appropriate **Jurisdictional Sequence(s)**.
- Perform the specified number of hours of **Peer Review** in the appropriate jurisdiction(s).
- Accrue two years of **plan design or review experience** in the appropriate jurisdiction(s)—which meets the approval of the appropriate APE Board(s). (This is in addition to the six years required in lieu of a degree in Civil Engineering or a related field.)

### ***Education Requirements to Establish DPE Status (Eligibility)***

Each member who wishes to become DPE-eligible, and subsequently, DPE-certified, must satisfy an initial education requirement. (After DPE status has been established, an annual education requirement must be fulfilled in order to maintain it.)

#### **Initial (one-time requirement) to Establish DPE-Eligibility:**

#### **Successfully complete the Land Development Engineering (LDE) Program**

- **LDE Semester 1 & Semester 2:** These semesters provide the information necessary for certification as a Designated Plans Examiner (DPE). They consist of engineering, planning, and design classes that prepare the student to perform those tasks necessary to successfully design, prepare, and submit land development plans. (An individual who takes a class or semester by itself may not receive credit toward DPE-eligibility.)
- **LDE Jurisdictional Sequence(s):** These two-day sessions provide the student with all relevant jurisdictional material and lessons learned for *each* jurisdiction in which the member intends to seek certification.

**Note:** Please contact ESI to determine if all applicable prerequisites have been met prior to applying for DPE certification. After professionals meet all necessary requirements in the desired jurisdiction, they may apply for certification. The jurisdiction will review each application and award the Designated Plans Examiner status to those qualified.

**Annual Education Requirements to Maintain DPE Status (Eligibility/Certification) become effective in January of the year after successful completion of the LDE Program.**

### ***Education Requirements to Maintain DPE Status (Eligibility/Certification)***

- Successfully complete three **General Education Classes (PD Electives)** from the **Professional Development Program** in subjects relevant to the plan design, preparation, and submission process or surveying.
- Successfully complete the annual **Jurisdictional Policy & Procedure Update Class** for *each* jurisdiction in which the member is eligible/certified.
- Perform the specified number of sessions of **peer review** for *each* jurisdiction in which the member is eligible/certified.

### ***Attendance Requirements to Establish DPE-Eligibility***

Those who enroll in the **Land Development Engineering Program** to satisfy initial DPE education requirements *may not miss more than one class per semester and must attend all classes in the appropriate Jurisdictional Sequence(s) to receive credit* for the program. Any additional missed classes must be made up, which may not be possible until the following year.

**Semester 1** of the program is scheduled from February through May, and **Semester 2** is scheduled from September through November. Although either semester may be taken first, the two-semester format is offered as a complete program, and all seeking to establish DPE-eligibility should enroll in both semesters. Each **Jurisdictional Sequence** of this program will occur in a two-day course after Semester 2 (in December). Dates and times will be announced for each jurisdiction during Semester 2.

### ***Assessment Requirements to Establish DPE-Eligibility***

Those enrolled in the **Land Development Engineering Program** are administered assessments throughout the program. These include class quizzes, practical exercises, and group work. A student who fails to satisfactorily demonstrate understanding of the main points and achievement of the learning objectives of a class, as assessed by the instructor, may be required to repeat that class. A final exam is given at the end of each semester. Students must pass both final exams to successfully complete this program.

## GENERAL CLASS CATALOG INFORMATION

### CLASS FEE SCHEDULE

<u>Program</u>	<u>Members</u>	<u>Nonmembers</u>
<b>Fundamental Education Program</b> Fundamentals of Land Development in Northern Virginia	\$725	\$925

### **Land Development Engineering Program (For credit toward DPE-eligibility)**

Semester 1	\$1,300	\$1,700
Semester 2	\$1,300	\$1,700
Jurisdictional Sequences (per County)	<u>\$ 700</u>	<u>\$ 800</u>
Total Course Fee	\$3,300	\$4,200

### **Land Development Engineering Program Classes**

Piecemeal Classes* (per class)	\$200	\$250
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\*May be taken for informational purposes but may not be applied toward DPE or DPE-eligible status.

### **Professional Development Program**

All Classes**	\$200	\$250
Symposium	\$150	\$150

\*\*Member organizations earning non-DPE educational credits may use their credits for these classes. For details, please contact ESI.

**Note:** If interested in individual or organizational membership, please contact ESI.

## **CLASS DETAILS**

**Class Descriptions:** The descriptions of classes in this catalog are general representations of the content and level of the material that is intended for presentation. The exact information addressed is a function of each instructor's expertise and determination as to the best way to adequately cover material relevant to the topic of the class. The majority of ESI classes comprise lecture, interactive group activities, practical exercises, and assessments. As part of quality assurance, video monitoring devices may be used during instruction and activities.

**Class Dates:** The dates published for classes are the projected dates that the courses are scheduled to occur. Various circumstances beyond the control of ESI occasionally necessitate that a class be rescheduled or cancelled. In the rare instance that either is required, staff will alert those enrolled as early as possible.

**Class Location:** All classes will be held in the **ESI classroom, located at 4795 Meadow Wood Lane, Suite 115 East, Chantilly, VA 20151**, unless noted otherwise.

## ACADEMIC YEAR 2018 COURSE SCHEDULE

### FUNDAMENTAL EDUCATION PROGRAM

#### **Fundamentals of Land Development in Northern Virginia**

This two-day course helps practitioners new to the Northern Virginia area understand the practical side of the land development process as it occurs in one of the busiest regions in the state. This orientation course will give professionals the basic information they need to quickly become productive employees in a practical application environment.

*Some topics to be covered: Overview of Plan Review Process in Fairfax & Loudoun Counties* (including County Codes & Ordinances & Public Facilities Manual), **Wetlands & Environmental Quality Corridors (EQC), Sanitary Sewers & Septic Systems, & Plan Design Topics with Local & State Officials** (including Virginia Stormwater Management Program & VRRM Spreadsheet, Erosion & Sediment Control, Urban Forestry, Water Authority, Fire Regulations, & Transportation). *Enrollment includes all classes on both days.*

**F101-18**      Wednesday, October 3              9:00 am – 4:30 pm

**F102-18**      Thursday, October 4              9:00 am – 4:30 pm

### LAND DEVELOPMENT ENGINEERING PROGRAM

This two-semester program, similar to a college course, is designed to provide students with a basic operating knowledge of the procedural and technical aspects for accomplishing plan approval in the Northern Virginia land development process. These classes address all practical aspects of land development, often including interactive exercises.

*Note: Professionals must successfully complete both Semesters and the appropriate Jurisdictional Sequence(s) to establish DPE-eligibility. (Land Development Engineering classes do not qualify as PD Electives.)*

## Land Development Engineering – Semester 1 (L100 series)

<b>L101 -18</b>	<b>Introduction to the Process of Land Development</b>	Tuesday, February 6	3:30 – 6:30 pm
<b>L102 -18</b>	<b>Evolution of Land Development</b>	Tuesday, February 13	3:30 – 6:30 pm
<b>L103-18</b>	<b>Environmental Issues</b>	Tuesday, February 20	3:30 – 6:30 pm
<b>L104-18</b>	<b>Developers &amp; the Community</b>	Tuesday, February 27	3:30 – 6:30 pm
<b>L105-18</b>	<b>Issues &amp; Challenges</b>	Tuesday, March 6	3:30 – 6:30 pm
<b>L106-18</b>	<b>Roles &amp; Responsibilities of Key Players</b>	Tuesday, March 13	3:30 – 6:30 pm
<b>L107-18</b>	<b>Survey Mapping &amp; Subsurface Utility Engineering</b>	Tuesday, March 20	3:30 – 6:30 pm
<b>L108-18</b>	<b>Comprehensive Planning &amp; Zoning</b>	Tuesday, April 3	3:30 – 6:30 pm
<b>L109-18</b>	<b>Geometric Site Layout I</b>	Tuesday, April 10	3:30 – 6:30 pm
<b>L110-18</b>	<b>Geometric Site Layout II</b>	Tuesday, April 17	3:30 – 6:30 pm
<b>L111-18</b>	<b>Street Design I</b>	Tuesday, April 24	3:30 – 6:30 pm
<b>L112-18</b>	<b>Street Design II</b>	Tuesday, May 1	3:30 – 6:30 pm
<b>L113-18</b>	<b>Grading &amp; Earthwork</b>	Tuesday, May 8	3:30 – 6:30 pm
<b>L114-18</b>	<b>Tree Conservation Plan Preparation</b>	Tuesday, May 15	3:30 – 6:30 pm
<b>L115-18</b>	<b>Floodplain Studies &amp; Drainage Outfalls</b>	Tuesday, May 22	3:30 – 6:30 pm
<b>L116-18</b>	<b>Peer Review, Final Exam Semester 1</b>	Tuesday, May 29	3:30 – 6:30 pm

## Land Development Engineering – Semester 2 (L200 series)

<b>L201-18</b>	<b>Stormwater Planning</b> Tuesday, September 4	3:30 – 6:30 pm
<b>L202-18</b>	<b>Storm Drainage Design</b> Tuesday, September 11	3:30 – 6:30 pm
<b>L203-18</b>	<b>Stormwater Management—Quantity</b> Tuesday, September 18	3:30 – 6:30 pm
<b>L204-18</b>	<b>Stormwater Management—Quality</b> Tuesday, September 25	3:30 – 6:30 pm
<b>L205-18</b>	<b>Utilities—Wastewater Design</b> Tuesday, October 2	3:30 – 6:30 pm
<b>L206-18</b>	<b>Utilities—Water Distribution</b> Tuesday, October 9	3:30 – 6:30 pm
<b>L207-18</b>	<b>Erosion &amp; Sediment Control</b> Tuesday, October 16	3:30 – 6:30 pm
<b>L208-18</b>	<b>Utilities—Dry Utilities</b> Tuesday, October 23	3:30 – 6:30 pm
<b>L209-18</b>	<b>Site Design Process: Steps &amp; Procedures (Mandatory)</b> Tuesday, October 30 (6-hour class)	12:30 – 6:30 pm
<b>L210-18</b>	<b>Site Design Process: Steps &amp; Procedures (Mandatory)</b> Tuesday, November 6 (6-hour class)	12:30 – 6:30 pm
<b>L211-18</b>	<b>Document Production—What &amp; How</b> Tuesday, November 13	3:30 – 6:30 pm
<b>L212-18</b>	<b>Engineer’s/Surveyor’s Roles During Construction</b> Tuesday, November 20	3:30 – 6:30 pm
<b>L213-18</b>	<b>Final Exam Semester 2</b> Tuesday, November 27	3:30 – 6:30 pm

**Land Development Engineering – Jurisdictional Sequences (L300 series)**

**Administrative Requirements for Plan Submission and Site Completion**

**Fairfax County Sequence (L310-18)**

*This two-day course will be presented in the Herrity Building at the Fairfax County Government Center in Fairfax. December dates to be announced. (Required to establish DPE-eligibility in Fairfax County.)*

<b>L310-18</b>	<b>LDS Introduction Planning Process Zoning Ordinance Site Plans/Subdivisions/Infill Lots Peer Review Customer &amp; Technical Support Center Stormwater Code &amp; Regulations Tree Conservation Ordinance Expedited Review</b>	<b>8:00 am-4:30 pm</b>
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**Loudoun County Sequence (L320-18)**

*This two-day course will be presented at the Loudoun County Government Center in Leesburg. December dates to be announced. (Required to establish DPE-eligibility in Loudoun County.)*

<b>L320-18</b>	<b>Welcome to Loudoun County, Zoning Legislative Process Subdivision Process Site and Construction Plan Process Bonding Process Expedited Review</b>	<b>9:00 am-4:00 pm</b>
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## **PROFESSIONAL DEVELOPMENT PROGRAM**

**Note:** Instructors are encouraged, where feasible, to indicate the level of the classes they develop for the benefit of students interested in those classes. Although these levels (Introductory, Intermediate, or Advanced) are subjective, they are offered to assist members to make their most appropriate class selections. Individuals are always encouraged to inquire about a class if they have questions regarding the proposed content or target level.

### **GENERAL EDUCATION CLASSES (PD ELECTIVES)**

#### **P501-18 From Design to Construction—Impacts of MOT, TMP, Signing & Striping (Introductory)**

The course will provide guidance on developing safe work zones, maintenance of Traffic and Detour plans, and Sign and Pavement Marking plans. The course will be based on information from the VDOT Work Area Protection Manual, Federal Highways Manual on Uniform Traffic Control Devices (MUTCD), Virginia Supplement to the 2009 MUTCD and other manuals.

**Thursday, January 25**

**3:30 – 6:30 pm**

#### **P502-18 Design & Modeling of Public Water Systems (Introductory)**

Topics planned for inclusion: Basic design concept, hydraulics review, gathering data for model, setting up model, determining system/fire demand, checking model, and general submission/review requirements.

**Thursday, February 1**

**3:30 – 6:30 pm**

#### **P503-18 Virginia Land Development & the Law (Introductory)**

What requirements can local government impose on my client? Besides the local design manual, what other sources will define the rights and responsibilities of the land owner and applicant in the land use process? Are zonings, special permits, site plan and subdivision regulated in the same way?

What is a Comprehensive Plan and why should I care? This course will answer those questions through a lively discussion of the advice that lawyers give to land owners and developers during a land use case with emphasis on the practical course to follow to get the project built.

**Thursday, February 8**

**3:30 – 6:30 pm**

**P504-18 Site Design Part I--Site Feasibility (Intermediate)**

Attendees will be exposed to the importance of understanding a site prior to selection for land development. During the due-diligence phase of a project, site opportunities and constraints will be reviewed through case studies to help civil/site practitioners uncover issues that could affect development costs and schedules.

**Thursday, February 15**

**3:30 – 6:30 pm**

**P505-18 Site Design Part II—Conceptual Design/Preliminary Engineering (Intermediate)**

Attendees will be exposed to early site design tasks after the site has been selected, such as conceptual design, preliminary layout, preliminary grading and earthwork, preliminary utility coordination and layout, frontage roadway improvements, and coordination with the jurisdiction holding authority. Class time may include case studies, group exercises, example projects, lessons learned and design recommendations.

**Wednesday, March 21**

**3:30 – 6:30 pm**

**P506-18 Value Engineering & Cost Estimating (Intermediate)**

The class will examine the origination of Value Engineering and how it applies to public and private sector projects for our industry. Different approaches to Risk Management for public and private sector projects will be discussed. The class will also touch on aspects of Cost Estimating that have a significant impact on the Value Engineering analysis. Group exercises will give participants the opportunity to assess Value Engineering issues that affect design, and to balance value with cost savings.

**Thursday, March 1**

**3:30 – 6:30 pm**

**P507-18 Fire Marshal Site Design (Introductory)**

Topics planned for inclusion: Getting plans approved faster through familiarity with the current site plan review checklist, IBC height and area regulations; recognizing the use of available fire flow data, calculating required fire hydrant flow, understanding Fire Department access and fire lanes (including fire lane signage and curb markings), proper location of fire hydrants and fire department connections, reviewing underground fire line and utility requirements.

**Thursday, March 15**

**3:30 – 6:30 pm**

**P508-18 Pedestrian & ADA Access Within the Public ROW  
(Intermediate)**

Intersections comprise a relatively small percentage of the roadway network but have the greatest number of crashes. This course will provide information on general intersection safety, pedestrian safety and ADA compliance. It will include pedestrian access at alternative intersection designs such as roundabouts and mini-roundabouts. Course material will be based on FHWA's proven safety countermeasure, VDOT Standards, and the Public Right of Way Accessibility Guidelines (PROWAG).

**Thursday, March 22**

**3:30 – 6:30 pm**

**P509-18 Sustainable LID Practices—A Class & Field Experience**

This class intends to be a combined classroom and field visit to focus on a case study that represents numerous Low Impact Design (LID) Practices that were recently constructed at a local site. **The class will be held at the Fairfax County Herrity Building, Room 106**, and the project/site will be the recently completed Fairfax Safety Headquarters Building at the Government Center (next to the Herrity Building). The LID elements to be discussed and observed include vegetative drainage swales, cisterns for water reuse, pervious pavement, bioretention, step pools that outfall into a wet pond, and green roof. Other elements of LID and sustainable design may include urban LID design—concepts and criteria, solar & water reuse, rain harvesting, and cost.

**NOTE: This class will be held at the Herrity Building at 1:30 pm!**

**Thursday, April 5**

**1:30 – 4:30 pm**

**P510-18 Project Management Basics (Introductory)**

Transitioning from a technical background to project management has several challenges. The goal of this class is to identify some of these challenges and provide support for a professional evolution into management. Topics for inclusion are: People—communication, where we struggle, what can we do to improve; Money—where it is won and lost, processes and procedures; Success—your brand, your company brand, what to measure and how.

**NOTE: This class will be held on a Wednesday!**

**Wednesday, April 11**

**3:30 – 6:30 pm**

**P511-18 SWM/BMP: What Works, Where & How (Intermediate)**

Topics planned for inclusion: Short introduction on the regulations, discussion of various BMPS and the DEQ specifications; project examples of how specific BMPs were implemented, and a practical exercise.

**Thursday, April 12**

**3:30 – 6:30 pm**

**P512-18 A Field Trip: Stream Restoration & Natural Channel Design (Intermediate)**

This field trip will allow students to see unrestored urban streams with extensive erosion, streams under construction, and streams restored between one year and nine years ago to see the “grow in” progression over time. There will be group discussions on lessons learned and how these types of channel restoration projects relate to adequate outfall and SWM requirements.

**NOTE: This class will be held at a location TBA.**

**Thursday, April 19**

**3:30 – 6:30 pm**

**P513-18 Land Development from the Owner’s Perspective (Intermediate)**

Topics planned for class inclusion: Impacts the Entitlement Process has on project schedule, cost of carry, pro forma, financing, and meeting optimum market timing. Specific examples including a completed Tyson’s Corner high-rise project, a planned Tyson’s project, and other office and industrial projects will be discussed.

**Thursday, April 26**

**3:30 – 6:30 pm**

**P514-18 Alternative Energy Developments (Introductory)**

Students will become familiar with alternative energy designs based on examples in the region, including solar, wind and microgrid and/or district energy types. The class will also describe concepts like distribution and transmission sides of the electric grid, retail and wholesale electric prices, etc. It will also summarize rules and regulations that govern projects' operation and implementation at the state, local and interstate level.

**NOTE: This class will be held on a Wednesday!**

**Wednesday, May 2**

**3:30 – 6:30 pm**

**P515-18 Site Visit to the Silver Line Phase 2 Project (Introductory)**

MWAA will provide a slide show and overview of construction on Phase 2 of the project. Phase 2 is 11.4 miles long and extends from Wiehle Avenue in Reston to Dulles Airport and beyond to Route 772 in Loudoun County. The focus will be construction activities plus the location and layout of the new stations, pavilions and kiss and ride lots. The class will include a bus trip and site visit to several areas of the project including the Herndon Station north pavilion area, Dulles Airport station, Loudoun Gateway or Ashburn Station pavilion area, the Rail Yard, and one or two SWM facilities. Not all areas will be available for a site walk.

**Meet at the Project Office—198 Van Buren Street, Herndon, VA 20171 on the 3<sup>rd</sup> floor.** (The main entrance faces the Dulles Toll Road.)

**NOTE: There will be a surcharge (amount TBD) per person for this class to defray the cost of transportation by bus to the sites.**

**Thursday, May 3**

**3:30 – 6:30 pm**

**P516-18 Public Private Partnership & Joint-Venture Projects: Focus on Fairfax County (Introductory)**

This class will introduce public-private partnership (P3) project characteristics and describe the policies and criteria that Fairfax County uses when determining possible P3 and joint-venture project delivery models.

Topics planned for inclusion: explanation of P3 and joint-venture projects; general principles and policies for P3s, structure and guidelines Fairfax uses, and case studies using specific projects implemented via a P3.

**Thursday, May 10**

**3:30 – 6:30 pm**

**P517-18 Outfall Analysis—SWM/BMP Conceptual Design (Intermediate)**

Topics planned for inclusion: Outfall analysis criteria overview in Loudoun and Fairfax Counties, Chapter 124, leading to concept design of SWM/BMP and VRRM spreadsheet.

**Thursday, May 17**

**3:30 – 6:30 pm**

**P518-18 Introduction to Waters of the U.S. Delineation (Introductory)**

This class will provide an introduction to the delineation of waters of the U.S. (WOTUS), including wetlands. Initial classroom review will cover the definition of WOTUS, along with an introduction to the U.S. Army Corps of Engineers Wetland Delineation Manual and the associated Regional Supplements. The three-parameter approach to wetland delineation and some of the complicating factors based on time of year or anthropogenic influences will be discussed. Resource Protection Area (RPA) components will also be reviewed. Students will then participate in a field delineation exercise, in which they will delineate stream and wetland boundaries, as well as review the RPA boundary.

**NOTE: This class (including field exercise) will be held at Wetland Studies and Solutions, Inc. in Gainesville, Virginia.**

**Thursday, May 24**

**3:30 – 6:30 pm**

**P519-18 Urban Construction (Introductory)**

Topics planned for inclusion: Supplemental research and design precautions and requirements; earth retention systems; construction management and staging in congested areas, constraints on equipment, MOT constraints, construction traffic and haul routes; maintaining existing utility services; identifying easement and clear zone encroachments; wet and dry utilities for the site; what to incorporate into the construction phasing plan; seasonal challenges and constraints; and collaboration with the contractor and construction manager.

**Thursday, May 31**

**3:30 – 6:30 pm**

**P520-18 Focus Group Workshop**

This critical four-hour workshop helps develop ESI's Professional Development curriculum for the next academic year. Under the direction of the Chair of the Education Committee, participants will consider classes suggested by ESI's membership and consolidate them into a prioritized list of courses, identifying class titles, topics to be covered, and subject matter experts. Participants are subject to approval of Director of Education, Education Committee, and/or Executive Director to ensure sufficient knowledge base of ESI curriculum and adequate representation from both the public and private sectors.

**Wednesday, June 20****9:00 am – 1:00 pm (includes lunch)**

## **JURISDICTIONAL POLICY & PROCEDURE (P&P) UPDATE CLASSES**

### **County Policy & Procedure (P&P) Update Classes (P600 series)**

These classes feature local and state officials who will address the changes to plan design and review policies, regulations, ordinances, and procedures occurring during the past 12 months within their jurisdictions. They may also include information about the types of jurisdictional resources available, Internet links, common mistakes on plans, and unwritten policy practices. DPEs and DPE-eligibles are required to take the classes for all jurisdictions in which they maintain DPE status. These sessions are typically scheduled in the fall, and members will be notified by email when they are available for enrollment. (Instructions for enrollment in these classes will be attached.) (P&P Classes do not qualify for credit as PD Electives.)

#### **P611-18 Fairfax County P&P Update Class**

#### **P621-18 Loudoun County P&P Update Class**

#### **P631-18 Prince William County P&P Update Class**

## **SYMPOSIA & SEMINARS**

ESI periodically offers seminars and symposia as rapidly developing opportunities for current technology or process information updates intended to provide responsive access to the membership. They are typically concentrated, fast-paced and information distribution oriented, affording members a comprehensive conduit to the latest techniques and requirements surfacing in the land development arena. Members will be notified by email when such classes are available. (As information distribution conduits, symposia or seminars may not qualify for credit as PD Electives.)

**ALTERNATE EDUCATIONAL OPPORTUNITIES** (may qualify for credit as PD Electives if appropriate approval, as indicated, is granted).

**Note:** ESI's acceptance of any of the following "Alternate Educational Opportunities" as one of the three annually required PD Electives to maintain DPE status does not guarantee its approval as credit for continuing education in professional license renewal/reinstatement.

**Guidelines for Acceptance of an Alternate Educational Activity (other than Class Attendance) for Credit as a PD Elective**

(See **P900-18** for information on Participation in an Alternate Class)

- Members may (with appropriate ESI approval) receive continuing education credit for an elective under the Professional Development Program by participating in an educational activity (other than class attendance) that meets the following criteria:
  - Has a stated content area, purpose, and observable and measurable objectives
  - Provides for the maintenance, improvement, or expansion of professional skills and knowledge in land development
  - Has an established duration
- Members interested in participating in an alternate activity for PD Elective credit should contact the Director of Education for further information before participating.
- Any alternate educational opportunity tentatively approved for credit as a PD Elective will require the member to submit evidence of successful completion of the activity to the Director of Education before final approval is granted.

**P700-18 DEQ Inspector for Erosion & Sediment Control for ESI Elective Credit Only**

**YOU MUST ENROLL AND MAKE PAYMENT TO DEQ through the DEQ website to attend this course held in the ESI Chantilly classroom. Members who also wish to use this course to fulfill the annually required three DPE electives should enroll in P700-18.**

This 2-day course is for individuals conducting regulatory inspections for a VESCP authority or entity with standards and specifications. If you are only responsible for conducting SWPPP inspections for the operator/permit holder, please visit the DEQ's SWPPP Inspection Training page.

**March 7-8**

**8:30 am – 4:30 pm**

**P800-18 Participation in a Technical or Process Study**

Members may perform study research and coordination regarding a topic identified by the Executive Director. The study shall include a study plan that identifies a statement of objectives, a desired result product, and a work schedule. The study shall have a final report identifying the work process and study results. The member shall provide the format outline for the proposed study to the Executive Director no later than 30 days after enrolling in this class.

**P801-18 Participation in a Jurisdiction Support Study**

Members participating in support efforts for jurisdictions, as identified by the Executive Director, may enroll in this class. Credit is contingent on meeting product and attendance requirements identified by the Executive Director.

**P802-18 ESI Executive Committee**

Members of the Executive Committee may enroll in this class. Credit is contingent on meeting product and attendance requirements identified by the Executive Director.

**P803-18 Technical Issues Study – Leesburg**

Members of the Technical Issues Study -- Leesburg Committee may enroll in this class. Credit is contingent on meeting product and attendance requirements identified by the Executive Director.

**P804-18 Education Committee/Jurisdiction Reinstatement Panels**

Members of the Education Committee/Jurisdiction Reinstatement Panels may enroll in this class. Credit is contingent on meeting product and attendance requirements identified by the Director of Education.

**P805-18 Advisory Plans Examiner Board (APEB)**

Members of the Advisory Plans Examiner Board may enroll in this class. Credit is contingent on meeting product and attendance requirements identified by the Executive Director.

**P810-18 Engineering Standards Review Committee (ESRC)**

Members of the Engineering Standards Review Committee may enroll in this class. Credit is contingent on meeting product and attendance requirements identified by the Executive Director.

**P900-18 Participation in an Alternate Class**

If a member seeks approval to use participation in an alternate class as credit for one of the three annually required electives to maintain DPE status, the member shall provide the following to the Director of Education, who may refer it to the Education Committee for review:

1. Evidence that the class is from an accredited academic institution or an institution that is state or federally certified as a continuing education credit provider/sponsor.
2. The course description and learning objectives of the alternative class, which shall address a topic comparable to one addressed by ESI classes.
3. If the course is tentatively approved as an acceptable alternate class, the member will also provide evidence of successful completion of the course to the Director of Education before final approval to receive credit is granted.

**P910-18 ESI Instruction (ESI Instructors Only)**

An ESI instructor who teaches a block of instruction in any of the ESI Education Programs in the current year may enroll in this class. Instructors may enroll in P910 only once per year. Approval by the Director of Education is required.

**P920-18 ESI Curriculum Development (ESI Instructors Only)**

An ESI instructor who develops a new block of instruction, or substantially updates one, in any of the ESI Education Programs in the current year may enroll in this class. Instructors may enroll in P920 only once per year. Approval by the Director of Education is required.

