TUESDAY, JUNE 7th, 2022

Course #20220036

NYSDOT Welcome Centers - Landscape Architecture Perspective (PE (tbd), LS (tbd), LA)

Peter Dunleavy, PLA – NYSDOT Landscape Architecture Bureau

This 90-mins presentation highlights the role of LAs in site selection and analysis as well as the development of thematic concepts for the building, displays, playgrounds and special landscape areas. It will convey both an overview of the Welcome Center Program and an appreciation of the many "hats" landscape architects can wear.

Course #20220025

Ashokan Rail Trail - 11.5 Miles of Engineering and Environmental Stewardship (PE, LA, LS)

Thomas Baird, PE – Barton & Loguidice, DPC

This special 90-mins, 1.5 PDH session will focus on environmental, logistical, and constructability challenges and their solutions for this 11.5-mile-long project that involved extensive coordination with local and state agencies and the public. Total project costs were $16 million with completion of the project in December 2019.

Course #20220023

Permitting the Replacement of Loring Crossing Bridge over the East Branch of the Tioughnioga River (PE, LA)

Johanna E. Duffy, CWB®, PWS and Zachary P. Dale, IE – Barton & Loguidice, DPC

This will provide an overview of the Loring Crossing bridge replacement project which was replaced through the Bridge NY program with a $3 million budget. It faced numerous obstacles including the presence of endangered mussels and the proximity of a local asphalt plant to the existing structure.

Course #2022005

Inner Loop East Transformation Tunnel Lining Project (PE)

Robert F Cody, PE – Stantec

This presentation briefly covers the Inner Loop Transformation project as a whole, but also discusses the effort surrounding the investigation, analysis and design of the combined sewer rock tunnel lining effort.

Course #20220026

Onondaga County Canalways Trail Extension Project, Phase 2, Segment 3 (PE, LA)

Alexander Kerr, PE, PTOE – Barton & Loguidice, DPC

An in-depth look at the technical obstacles designers overcame throughout design and construction to create a multi-use recreation trail and connect previous segments of canalways trail to the greater Syracuse area and expand Onondaga County's Loop-the-Lake trail.

Course #20220021

Rebuilding the Old Blenheim Bridge - A former National Historic and Civil Engineering Landmark (PE)

Edmund W Snyder III, PE – Greenman-Pedersen, Inc. (GPI)

We'll discuss the challenges to rebuild the world's longest single span covered timber bridge which was a National Historic Landmark as well as a National Historic Civil Engineering Landmark. Topics will include the history of the original bridge and challenges faced with replicating a one-of-a-kind structure.

Course #20220028

CR 119 over the Canisteo River Bridge Replacement Project in Steuben County (PE)

Seth D Kaeuper, PE & Logan E Bessel, PE, ENV SP – C&S Engineers, Inc.

Few bridge projects have faced the number of major challenges that were encountered on this project that involved the replacement of an existing truss bridge with a new steel multi-girder structure on an adjacent alignment. A lengthy detour, cultural and environmental resource concerns, difficulty with coordination and acquiring a parcel of land without an obvious owner were all present for this difficult but achievable bridge replacement.

Course #20220030

Continuous Flow Intersections (CFI), a creative and innovative concept for safety, congestion and high volume left turns. (PE)

Lorenzo Rotoli, PE, PTOE & Tom Miller, PE, PTOE – LaBella Associates, D.P.C.

This presentation will introduce a creative and innovative CFI concept that increases safety, decreases congestion, and minimizes the cost of new infrastructure. The presentation helps explain and illustrate traffic operations, design and impacts for the CFI concept.

Course #20220017

Elmira Corning Regional Airport Terminal Revitalization (PE, LA)

James H Flynn, PE & Jeffrey R Wood, CSDP– NYSDOT & McFarland-Johnson, Inc.

This presentation will provide an overview of the $61.4M revitalization of the Elmira Corning Regional Airport project, including the scope and features used in the design and construction and the management plan to meet the accelerated schedule.

Course #20220014

Professional Ethics - Doing the "Right" Thing (PE, LA, LS)

Darrell Kaminski, PE – University of Buffalo, Labella Associates

Professional ethics will be discussed; brief review of the philosophical roots of ethics, business and organizational codes of ethics, using Bechtel and ASCE Codes of Ethics as examples. There will be an overview of NYS professional conduct regulations and a discussion of several case studies to explore the real-life application of professional ethics, and the dilemmas presented.

WEDNESDAY, JUNE 9th, 2022

Course #20220027

Safe Routes to Everywhere: Rolling Out the PSAP Program Statewide (PE)

Todd E Humphrey, PE & Kelli L McArdell, IE – C&S Engineers, Inc.

This presentation will take the audience through a typical PSAP design, from initial data gathering and preliminary design studies, to final design and construction, the program will cover both uncontrolled and signal controlled intersections.

Course #20220033

Roadside Design: An Overview (PE)

Howard Ressel, PE – Popli Design Group

Introduced are concepts of roadside design to teach practitioners how to provide economical and practical clear recovery areas and, when this cannot be achieved, what alternatives can be used to reduce damage or injury to vehicles and passengers who unavoidably run off the road.

Course #20220034

New York State Scenic Byway Program and 2020 FY National Designation Process (PE, LA)

Christine Colley, PLA – NYSDOT Landscape Architecture Bureau

This presentation outlines the NYS Scenic Byway Program and Reviving America's National Scenic Byways Act of 2019 beginning with the Federal National Scenic Byway Program, including key federal legislation dates and FHWA's interim policy. NYSDOT staff involvement will be described as will the implications of the byway program for capital contracts.

Course #2022007

Controlled Modulus Column: Design and Case Studies in Transportation (PE)

Nina F Carney, PE & Taylor J Towle, PE – Menard Group

This will include a technical overview of the design theory of CMC™ rigid inclusions for embankment support, case studies of highway projects completed in the region, and the results of full-scale instrumented testing of CMC™ rigid inclusion projects. We will compare actual performance monitoring data to the key predictions of the finite element models.

Course #20220019

Trenchless Technology: Methods and Best Practices (PE)

Trygve W Hoff, PE, ENV SP – American Concrete Pipe Association

Discussed will be the rapidly growing segment of pipe projects that include trenchless technology. These projects are less disruptive while improving road safety and saving time and money.

Course #2022008

Innovative FRP Composite Bridge Products (PE)

Timothy Kenerson, PE, M.ASCE & Ralph Verrastro, PE – AIT Bridges and KCI Technologies Inc.

A brief overview of the history of FRP composites over the past 30 years and how AIT was able to develop two (2) FRP bridge systems (GBeam™ & GArch™) for use by the bridge engineering industry. We will describe some of the rigorous testing and life cycle cost analyses that have been performed providing evidence that these products are less costly than conventional steel and concrete products.

Course #20220016

Village of Clayton, Complexities of Buried Utilities & Complete Streets (PE, LA)

Stephen G. Gagnon, PE – NYSDOT Region 7

Clayton Village proposed the burial of all overhead utilities into a system of conduits and vaults. This presentation will outline the coordination efforts between the village and its engineers, the State, and all affected utility providers. The presentation also outlines the complete streets features of the project.

Course #2022009

I-390 Interchange Improvements at I-490, Phases 3 & 4 (PE)

Christopher Sichak, PE & Robert Schiller, PE, PTOE – Erdman Anthony

The New York State Department of Transportation Design-Build project included three new mainline bridges, an overpass bridge replacement, cleaning and painting of a railroad bridge along with new embankment for a new I-390 express southbound alignment, rehabilitation of the existing I-390 southbound pavement, rehabilitation of the I-490 pavement

within the interchange, enhanced expressway lighting, traffic signal design, new noise walls, and reconstruction of a portion of Lyell Avenue.

Course # 2022004
48-Hour Replacement of LIRR's Post Avenue Bridge (PE)

Victoria Christini, PE – McLaren Engineering Group

The Long Island Railroad bridge was frequently struck by vehicles passing below. The old bridge was demolished and replaced with a new steel girder bridge within a 32-hour window to prevent the railroad bridge being out of service for more than one weekend.

Course #20220022
CR 113 over the Batten Kill Bridge Replacement (PE)

Edmund W Snyder III, PE – Greenman-Pedersen, Inc. (GPI)

This course will provide history of the existing bridge and discuss various challenges with designing and constructing a triple arch precast bridge. The out-to-out width of 27ft made the existing roadway unsafe for vehicular traffic, bicyclists and pedestrians on a bridge that became eligible for listing on the National Register of Historic Places in 2002.

Course #20220039
Transportation: Connections to Fish and Wildlife and Mitigation Considerations to Reduce Impacts (PE, A, LA, LS)

Edward Frantz - E.H Frantz Environmental

Presentation will highlight primary relationships, potential impacts, and mitigation measures using experience and research to reinforce concepts of habitat connectivity and its relationship with our transportation system.

Course #2022001
What Lies Between: Practical Solutions to a Legacy 20th Century Drainage Problem (PE, LA, LS)

Michael T Croce, PE & Thomas R Detrie, PE – Bergmann Associates

Humans spent much of the last century designing and building facilities to exert control over the elements, but rushing water is and always has been a formidable opponent. The $3.3M Coleman avenue Rehabilitation & Stormwater Improvement Project applied practical solutions, within a constrained environment, to reduce the potential for flooding.

Course #20220020
Sustainability, Resilience, and Concrete Pipe (PE)

Trygve W Hoff, PE, ENV SP – American Concrete Pipe Association

Buzzwords are often overused and underutilized, and Resilient Infrastructure frequently falls in that category. This course will address the basic definition of resilient and its relation to sustainability and how it can be used during design.

Course #20220013
County Road 20 over Tannery Creek (PE)

Benjamin Beardsley, PE & Thomas Windus, PE – Popli Design Group & Allegany County DPW

This presentation will discuss the replacement of the CR 20 bridge over Tannery Creek in the town of Cuba, NY. It will highlight the advantages to providing specific substitution options for three-sided precast concrete structures on the design plans.

Course #20220032

Albany Skyway - From Pie in the Sky Concept to Skyway (PE, LA)

Robert Rice, PE, Lorenzo Distephano, PE, & Robert Cartwright, PE – NYSDOT Region 1 & Stantec Consulting Services Inc.

The project addresses the City of Albany's downtown revitalization strategy envisioning Downtown Albany as the ideal urban center. The acceptance of this unique transformation grew from outside of the box thinking, public outreach, interactions with stakeholders, coordination with federal, state and local agencies, and collaboration between technical disciplines.

Course #20220015

Obtaining and Complying with USACE Permits (PE, LA)

Bridget Brown & David Leput – United States Army Corps of Engineers

This will provide an overview of the U.S. Army Corps of Engineers (Corps) permit evaluation process as it pertains to transportation projects. It will include information specific to the types of activities that would require a permit and the information the Corps needs to complete the evaluation. In addition, the presentation will provide results of permit compliance inspections conducted by Corps staff and examples of some of the issues and challenges documented during post-construction inspections.

Course #20220040

Complete Streets Makeover, An Exploration of Tactical Urbanism in Rochester (PE, LA)

Rory Weilnau, PE, ENV SP & Jon Hartley, PE, PTOE – Stantec

We will delve into Complete Street basics, the structure of the Complete Streets Makeover program, its participants, their participation, and results from the first implementation at Parsells Avenue and Greeley Street in the City of Rochester.

Course #2022003

Rainbow Bridge Deck Joint Repair - Ultra-High Performance Concrete (UHPC) Link Slabs (PE)

Keith Harlock, PE, Wesley Frechette, PE & Andy Foden, PhD, PE – WSP USA

A discussion on Ultra-High Performance Concrete (UHPC) and its utilization during the rehabilitation of the Rainbow Bridge. Design consideration for UHPC and logistics will be provided through a general overview of the project.

Course #20220038

Beyond Aesthetics: Professional roles in Bridge and Culvert Design (PE, LA)

Lynn Godek, PLA – NYSDOT Region 7

A case study of NYSDOT bridge and culvert projects which exemplify coordination between engineers and landscape architects. The rich history of a stone arch bridge is documented as part of the bridge rehabilitation project in Madrid, NY and a culvert replacement project set in the Adirondacks prompts special attention to traffic control solutions.

Course #20220018

What Would You Do? - Ethical Choices (PE, LA, LS)

David Orr, PhD, PE – NYS LTAP Center - Cornell Local Roads Program

When faced with an ethical dilemma, knowing what to do is not always easy or straightforward. This interactive session will review some typical ethical problems for engineers and highway officials.

THURSDAY, JUNE 9th, 2022

Course #20220011

Key Considerations for Bridge Load Testing and Structural Monitoring (PE)

David E. Kosnik, PhD, PE – CTLGroup

This presentation will introduce concepts and practical considerations for load testing and structural monitoring of bridges and similar structures, and will serve, in part, as an overview of the Primer on Bridge Load Testing published as a Transportation Research Board e-Circular in November 2019.

Course #20220012

North Division Street Bridge Replacement (PE)

Mark Laistner, PE & Robert Traver, PE – Popli Design Group

Built in 1964, the North Division Street Bridge over the Owasco River was a structurally deficient three-span pre-stressed concrete box beam bridge. A new horizontal alignment corrected the existing intersection alignment problem, improving the level of service and safety. The project also included the addition of an additional turn lane at NYS Routes 5 and 20, the improvement of an at-grade railroad crossing, and the construction of a node for the Owasco River Greenway Trail.

Course #20220035

Spotted Lanternfly Update (PE, LA, LS)

Christine Colley PLA & Ethan Angell – NYSDOT LAB & NYS Agriculture and Markets

Attendees will learn to identify the insect through its life cycle including its eggs, where and when to look for it, what to do if found, what New York State Agencies and the US Department of Agriculture are doing in response, what is required to comply with the External Quarantine that has been put in place and any anticipated regulatory changes. This presentation will also discuss tools available to designers, including specifications, notes etc. and how and when to use them in capital contracts.

Course #2022006

Bathymetric Survey: A Fresh Look at New York's Underwater Infrastructure (PE)

Terry McKiven – Prudent Engineering

This presentation will cover some of the technologies available to firms and agencies for inspecting underwater infrastructure. We will discuss the difference in technologies and how to pick the right one along with information verification.

Course #20220037

Multi-Modal Facilities: Designing Projects with Viable Transportation Options (PE, LA)

Kimberly A Lorenz, PLA – NYSDOT Region 5

This will provide an overview of multi-modal transportation facilities, pedestrian and bicycle laws, and multi-modal design tools. This course is designed to improve awareness of the complexities and challenges associated with designing for multi-modal transportation use.

Course #20220010

A Retaining Wall to Please All - East State Street Retaining Wall, City of Ithaca, NY (PE)

Christopher Sichak, PE & Andrew Nichols, PE – Erdman Anthony & McMahon & Mann

This Locally Administered Federal Aid (LAFA) project involved the replacement of a large retaining wall in the 400 block of East State Street in Ithaca, NY. A new 300-foot long by 35-foot maximum height retaining wall was constructed to replace the deteriorating over 100-year-old gunnite covered stacked stone wall.

Course #20220024

Zim Smith Trail - Extension, Through Hell and High Water (PE, LA)

Edmund W Snyder III, PE & Amanda Kinley, PE – Greenman- Pedersen, Inc. (GPI)

This presentation will discuss the trials and tribulations through the construction phase of the Zim Smith Trail Extension. Poor soils, high water table, limited access, and site topography contributed to a challenging construction site.

Course #20220029

I-81 The Future of Syracuse (PE)

David Smith, PE – NYSDOT Region 3

The I-81 Viaduct Project will look to resolve a significant transportation issue in Central New York. This $1.9 billion project will be one of the largest DOT infrastructure projects since the Interstate System was built more than 50 years ago.

Course #2022002

NYSDOT Ancillary Structures - Program History and Execution (PE, LS)

William Doughty, PE – Greenman-Pedersen, Inc. (GPI)

The presentation will discuss the history and execution of NYSDOT's ancillary structure inspection program. Topics will include examples and mechanisms of past structural failures, fatigue sensitive details, commonly observed defects, and ways department personnel can add value during a project's design and construction phases.

Course #20220041

Planning and Environment Linkage Study NYSDOT Route 17 PEL Study (PE)

William Gorton PE and Katherine Craig PE, PTOE – WSP USA

The first NYSDOT PEL was recently completed for NYS Route 17 in Orange and Sullivan Counties and this will be used as a case study for the use of PEL. The Study was completed during the COVID-19 Pandemic and the course will describe what actions were taken to keep it on schedule and fulfill the PEL requirements.

Course #20220031

School Zone Safety (PE)

Tim Faulkner, PE – Fisher Associates

This program will present some relevant information on the importance of school zone safety, review the road diet that was studied and implemented on US Route 11 in Watertown, NY, and present information as to the improvement in safety since its implementation. The interactions and issues that were faced when attempting to accommodate the demands of the State Education Department and what can be done to improve school zone safety will be reviewed from the perspectives of the engineers and community.