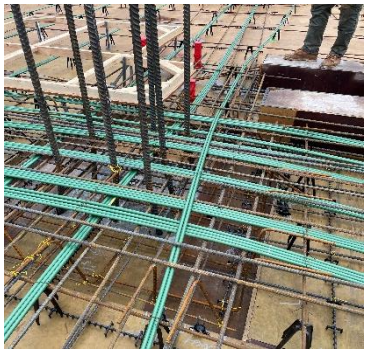
2026 Annual Seminar & Trade Show

Post-Tension Design: Principles and Practice

Post-tensioned design principles are fundamental for every practicing engineer, however, success within the profession depends on the ability to navigate the nuances of project planning, adapt to the ever-evolving field challenge, and apply practical judgement based on experience. Beginning with a core design principles review, the day will expand to cover practical design rules of thumb used, constructability considerations, and lessons learned. From efficient system layout and detailing, to corrosion investigation and tendon repair, to the overcoming of extreme logistical constraints through innovative problem solving, this seminar aims to further your practical knowledge and sharpen your perspective in the world of post-tensioned design.

SESSION 1 – Practical Post-Tensioning for Buildings: Structural Principles and Execution Strategies

Gannon Stromquist-LeVoir, P.E. – Structural Project Engineer at HGA and President of the Minnesota Concrete Council
Kris Borchardt, P.E. – Project Engineer at HGA



Post-tensioned concrete systems can make buildings more efficient, more durable, and more adaptable. This presentation offers a practical overview of how these systems work and the key ideas engineers should understand when using them. We'll look at the basic design principles, the major components, and how detailing and layout choices affect performance. The session also highlights what happens in the field—from construction sequencing to stressing operations—and shares lessons learned from past projects. Attendees will leave with a clearer sense of how to apply post-tensioning effectively in real-world building design and construction.

SESSION 2 – When Things Go Wrong: Post-Tension Repairs

Carl Schneeman, P.E. – Managing Principal at Walker Consultants

This session will review investigative and repair methods related to corrosion-induced deterioration in parking facility post-tension slabs and beams. Starting with the history of post-tension systems, the session will explain common investigative methods to assess tendon condition and determine structural review needs. Considerations for repair planning, shoring, methods of tendon restoration and restressing will be presented. Additionally, case studies will be presented to provide real-world applications. In particular, the session will explore a slab investigation to gauge the risk of hidden, but suspected damaged tendons in a 680 space multi-level garage. Additionally, the session will present a unique application of beam repair featuring external post-tensioning to restore safe load-carrying capacities.

SESSION 3 – Putting the Pieces Together – A Project Case Study Involving Precast, Post-Tensioned Concrete Foundation Elements in the Remote Arctic

Cory Brett, P.E. – Senior Project Manager at Simpson Gumpertz & Heger

As part of a radar facility being constructed for the U.S. Government in the remote Arctic, several logistical challenges confronted the project team. Procurement of construction materials in the U.S., delivery to Greenland, limited availability of construction equipment, and a restrictive two-and-a-half-month construction season all contributed to a complex engineering and construction project.

For foundation construction, traditional cast-in-place-concrete construction was not possible given the lack of batch plants near the remote site. Precast segmental-concrete elements were the alternative, including a mat foundation for the radar tower and deep footings for an ancillary support structure. To accelerate the erection schedule, the design engineers engaged a domestic concrete precaster to cast elements in Massachusetts and truck them to a port in Norfolk, Virginia. From there, segments were loaded onto a boat that carries supplies to the project site once a year. The segments had to be small enough to fit into shipping containers, be light enough for site cranes to manipulate, and act as a cohesive foundation system once installed. Using a combination of grouted splice sleeves and bonded post-tensioning techniques, the contractor completed foundation construction within the short construction season. This case study shows how the U.S.-based design engineers worked creatively and successfully with a domestic precaster and foreign contractor to provide a solution that satisfied the project's many technical and logistical challenges.

MNSEA

Minnesota Structural Engineers Association

ANNUAL SEMINAR AND TRADE SHOW – MAY 12, 2026

AGENDA:

7:30 a.m.-8:15 a.m.	Registration, Breakfast & Trade Show	11:00 a.m.-12:00 p.m.	Technical Session 2
8:15 a.m.-9:00 a.m.	MNSEA General Meeting	12:00 p.m.-1:15 p.m.	Lunch, Networking and Trade Show
9:00 a.m.-9:30 a.m.	Trade Show Exhibitors Introductions	1:15 p.m.-2:15 p.m.	Technical Session 3
9:30 a.m.-9:45 a.m.	Trade Show and Coffee/Water break	2:15 p.m.-3:00 p.m.	Closing remarks and Trade Show
9:45 a.m.-10:45 a.m.	Technical Session 1	3:00 p.m.-5:00 p.m.	Social Hour & Venue Exploration
10:45 a.m.-11:00 p.m.	Trade Show and Coffee Break		

LOCATION:

Science Museum of Minnesota – 120 W. Kellogg Blvd., Saint Paul, MN 55102. Room: Discovery Hall.

COST:

Early Registration (Before April 10th)		Standard Registration (After April 10th)	
MNSEA or SEAWI members:	$140	MNSEA or SEAWI members:	$160
General Attendees (non-members):	$190	General Attendees (non-members):	$210
MNSEA/SEAWI Young Members (30 and under):	$85	MNSEA/SEAWI Young Members (30 and under):	$105
Students:	$50	Students:	$70

Fee Includes: General Meeting, Educational Sessions, Trade Show Access, Continental breakfast, Lunch, Beverages, one parking pass, and a Social Hour Drink.

REGISTRATION:

Online Registration Link - 2026 MNSEA Annual Seminar & Trade Show - RSVP

Registration Refund – 7 days minimum cancellation required. After that, cancellations fees will be applicable.

CONTINUING EDUCATION:

The seminar will provide 3.0 PDH/0.3 CEU credits. Certificates will be distributed at the end of the seminar.

SPONSORS:

This year we are offering an opportunity for Special Sponsorships! THANK YOU TO OUR SPONSORS!

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TRADE SHOW:

A trade show with up to 20+ exhibitors from across industry will occur on breaks between educational sessions and during the social hour following the sessions. Exhibitors will provide updates to attendees on their products and services. Exhibitors are excited to answer questions and provide solutions to every-day engineering challenges.

List of Currently Registered Exhibitors:

Company	Website Link
Primary Sponsor (****) – Your Company	**Your Company Website**
Social Hour Sponsor (***) – Your Company	**Your Company Website**
ATLAS Tube (**)	**Steel HSS | ATLAS Tube**
NUCOR – VULCRAFT of Nebraska (*)	**NUCOR Vulcraft**
Bekaert	Bekaert
IDEA StatiCa	IDEA StatiCa
Lindapter USA	Lindapter USA
CY-CON Inc.	CY-CON
Cemstone	Cemstone
Menard USA	Menard USA
New Millenium Building Systems	New Millenium Building Systems
Abrafast/Blind Bolt	Abrafast – Blind Bolt
Atlas Foundation	Atlas Foundation
DeWALT	DeWALT®
Subsurface Constructors, Inc.	Subsurface Constructors
Lam-Wood Systems	Lam-Wood Systems
Engineered Supply	Engineered Supply
MOLIN	Molin Concrete Products
AZZ Galvanizing	AZZ Galvanizing
Simpson Strong-Tie	Simpson Strong-Tie
Your Company	*Your Company Website*
Your Company	*Your Company Website*

(****) **Primary Sponsor of the event**
(***) **Social Hour Sponsor**
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If you have any questions about this seminar, please contact Phil Cici at (763) 843-0463 or pcici@bkbm.com

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Gannon Stromquist-LeVoir, P.E. – Structural Project Engineer at HGA and President of the Minnesota Concrete Council

Gannon is a Structural Project Engineer at HGA with over a decade of experience delivering complex concrete and steel building projects, with a particular focus on post-tensioned concrete structures. His work spans new design, major retrofits, and investigations across commercial, institutional, and mixed-use markets. Gannon is known for his practical engineering judgment, collaborative leadership style, and ability to integrate structural solutions seamlessly within multidisciplinary project teams. He holds a Master of Science in Civil Engineering with a concentration in Structural Engineering from the University of Connecticut and currently serves as President of the Minnesota Concrete Council.

Kris Borchardt, P.E. – Project Engineer at HGA

Kris has more than 12 years of experience in the structural analysis and design of new and existing buildings, with proficiency across all major structural materials including post-tensioned concrete. His portfolio includes a wide range of projects requiring both new design and complex retrofit strategies. Kris is known for his strong multidisciplinary coordination skills and his direct, solution-focused communication with project stakeholders. Drawing on deep technical knowledge and an ongoing commitment to emerging structural technologies, he consistently delivers cost-effective, well-coordinated, and constructible structural systems.

Carl Schneeman, P.E. – Managing Principal at Walker Consultants

Carl has been with Walker for 20 years and specializes in parking facility planning, design, maintenance and repair. He holds a BS in Civil Engineering and MS in Structural Engineering from Marquette University and is a contributing member of ACI Committee 362 – Parking Structures. He also is the Chair of the National Parking Association's Parking Consultants Council and past ICRI-MN Board Member. Aside from focusing on efficient, constructible, and durable parking facilities, Carl has worked on a wide array of parking facility investigations and evaluations leading to many complex repair projects. He enjoys finding creative solutions to restore facilities (often under traffic) and always loves sorting out deficiencies in post-tension and prestressing systems.

Cory Brett, P.E. – Senior Project Manager at Simpson Gumpertz & Heger

Cory Brett is a Senior Project Manager and a member of SGH's structural engineering group. With twenty-five years of practice, Mr. Brett's structural engineering experience includes designing, investigating, and rehabilitating many types of structures including foundations and retaining walls, transportation-related structures (e.g., bridges, tunnels, and sign support structures) and buildings of all types. Mr. Brett also performs specialized work related to evaluating flood hazards and designing structures to mitigate flood risk, and monitoring and predicting vibrations in buildings (including assessing structural damage and human comfort). Cory previously served on the Post-Tensioning Institute Committee DC 80, for the repair and rehabilitation of post-tensioned structures.