

HEAVY MOVABLE STRUCTURES, INC.

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HMS
HEAVY MOVABLE
STRUCTURES

HMS NEWS BRIEFS

Lee Lentz, Editor
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September 2018

Phone (717) 790-9565

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I hope you have had a great summer and are now transitioning into your Fall activities. Part of that transition this year should obviously be the final preparations for the 17th Biennial Symposium. The officers are hard at work with Hotel coordination needs and other symposium details. We have sold out our booths including overflow again like Tampa in 2016. All indications are that this will be one of the largest symposiums we have ever had.

The Renaissance Sea World Hotel has proven to be a great host so far in our planning stages. The ballroom and registration areas along with the breakout rooms will be conveniently located together. The lobby is an impressive sight. Sea World is right next door. Register now and plan to bring your family to enjoy the area.

Don't forget, we will have AREMA Committee 15 with us this year.

If you would like to run for the Board of Directors please contact me asap. I plan to have the ballot out before the symposium. (also, please renew your membership so that you are eligible to vote).

I am happy to announce the newest member of the HMS Movable Bridge Hall of Fame, **J.A.L. Waddell—Inventor of the Vertical Lift Bridge!** A biography can be found on pages 9-10. Stay tuned for two more inductees in the near future.

Feel free to email me with any comments or questions that you may have, especially if you want to serve on the Board!

Graciela Patino

Chairman of the Board

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It's Almost Time

-President James Alison

It's almost time! The Heavy Movable Structures 2018 Biennial Symposium is right around the corner. If you have not already, please make your plans now before the Renaissance releases the few remaining rooms in our block. Frank Marzella has a great set of papers lined up for us and with Seaworld across the street from the hotel, we should have plenty of opportunities for learning and having fun. If you are still trying to justify the trip, remember that HMS is providing the Florida Rules program, New York PE credits, AREMA committee 15 meeting, Andy Herrmann as our keynote speaker, a full display area for exhibitors, and three nights of networking opportunities. We only do this once every two years so don't miss this opportunity to come and listen, learn, participate and have fun.

Thank you to all the exhibitors for this year's event. Our exhibit space is sold out !

On Wednesday evening Oct 24, we are planning an offsite event at Seaworld that will be fun for everyone. Their signature rollercoaster, Manta, will be available for our exclusive use. Contact Dan Appelbaum to reserve your ticket for this event.

I ask that all of us reach out and participate in this event, particularly those on the board, to not only to assist the officers but to enhance and guide your organization to grow and adapt to best serve the membership. There is a lot that goes into making this show happen.

See y'all in October!

James Alison
President

2018 BIENNIAL MOVABLE BRIDGE SYMPOSIUM

October 22 – 25, 2018

LOCATED AT THE

Renaissance Orlando at Sea World

8623 Vineland Avenue, Orlando, FL 32821.

For Hotel Reservations Click: <https://aws.passkey.com/go/HeavyMovable2018>

Final Prep!

-Senior Vice-President John Proven

The Officers and Board Members are busy preparing and planning for the upcoming symposium at the Renaissance Orlando at SeaWorld. The exhibitor booths are completely booked which is great. We encourage you to renew your membership as soon as possible as it will not only save you time and money at registration, but you will be able in the upcoming elections for the Board of Directors.

Frank Marzella has been very busy coordinating the technical presentations so please send him your papers and PowerPoint presentations soon. Having performed this task before, scheduling the presentations, installing them on the thumb drives, scheduling monitors and finalizing the program will go much smoother if all the papers are received. We need volunteers who are interested in helping with various task during the meeting and before if possible such as registration, preparing attendance packages, computer set-ups, and other tasks. Just let an officer know if you are ready, willing and able to participate.

We are looking forward to a great symposium at a wonderful venue in Orlando. The cutoff date for the room block is fast approaching, **September 27, 2018**. The Renaissance is across the street from SeaWorld and not far from the other attractions in Orlando, so you are encouraged to review the area prior to arriving.

I hope to see everyone in Orlando in October. Make your reservations NOW!!

John G. Proven, P.E.
Senior Vice-President



Technical Program Update

-Vice President Frank Marzella

Planning of the technical presentation program is nearing completion. There will be presentations on a wide variety of subjects and one panel discussion on accelerated bridge construction. Four programs will be offered that qualify for New York State Professional Engineer PDH credits. The presentation schedule will be posted on the website in early September.

If you have been approved to present at this year's Symposium and haven't turned in your paper and presentation, please submit them in short order. Flash drives containing PDF files of the technical papers will be given out to all Symposium attendees. If you want your paper included on the flash drive give away, please have your paper PDF file to me no later than August 31, 2018.

The same deadline applies to submission of all presentation PowerPoint files. If your PPTX file is too large to email, please email me and I will forward you a link for a direct upload.

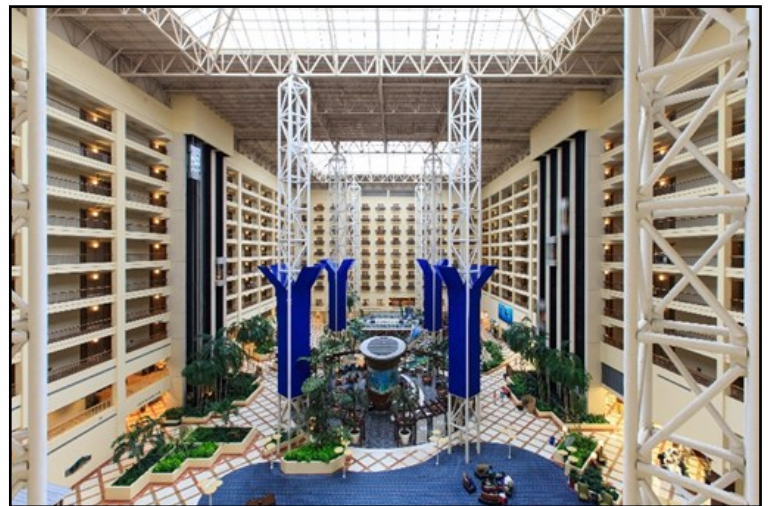
Presenters should bring a printed biography to their designated technical sessions. Session monitors will use these biographies to introduce each presenter. Please keep them short and sweet!

Thank you in advance to all of you who have volunteered to be session monitors.

If anyone has any questions, please do not hesitate to contact me directly.

Frank Marzella
Vice-President

fmarzella@hardesty-hanover.com
360-943-4139



Want to Become an HMS Member? Visit our Website
www.heavymovablestructures.org

Last Minute Details

- Secretary Lee Lentz

Hello everyone and happy almost Fall! Hope your summers were filled with time off and great weather. The 2018 Biennial HMS Symposium would be a great way to extend your time in some sun! Go to www.heavymovablestructures.org and click on the REGISTRATION link. Members get \$100 off. Special registration rates are also available for Government Employees, Students, and Spouses. Spread the word to your contacts in the industry to make sure no one misses out.

We have posted a store item for the off-site event tickets. This years event will be held next door at SeaWorld. Transportation will be provided. Exhibitors will receive 2 tickets with their booth. This looks like it will be a blast with dinner and drinks included and a back stage tour and ride of the Manta Roller Coaster. Consider registering for this event ahead of time.

Please continue to visit our website www.heavymovablestructures.org on a regular basis for updates and for access to the "HMS News Briefs". Also included on the website you can verify and update your membership registration status and access past technical papers. If your contact information has changed recently please take time to provide that through the link on the website as well.

Thank you to all of our exhibitors and sponsors!

Please contact me at LRLentz@Modjeski.com or call me at (717) 790 - 9565 if you have any problems or questions.

Lee Lentz,
Secretary

Check out Orlando at the Renaissance Hotel Sea World!
Become a Marriott Rewards Program member to capitalize on your benefits



HMS 
2018
BIENNIAL SYMPOSIUM
ORLANDO, FLORIDA

TREASURER'S REPORT

- *Treasurer Daniel Appelbaum*

As summer nears an end, the 17th Biennial HMS Symposium is getting ever closer, and 10/22 – 10/25 is shaping up to be one of the largest Symposiums ever. The booths are sold out, with 58 exhibit spaces filled - several to some new names and faces. Thank you to everyone who has reserved a booth – you are a large reason the Symposium continues to be successful. A booth layout with all exhibitors can be found on the website.

If you have not registered to attend the Symposium yet, please go to the website and do so. Considering breakfasts, lunches, and receptions are included, as well as PDH credits from the technical presentations, \$590 for three days is a considerable bargain.

Also renew your membership. We will be voting for the next Vice President and new Board Members soon, and you must be a current HMS Member to vote.

The off-site event this year will be at SeaWorld on Wednesday evening. Dinner, drinks, an aquarium, a rollercoaster – sounds fun, no? Tickets are \$90 and are available on the website. Contact me (dappelbaum@hntb.com) if you have questions or would like to pay by check. To help our planning, if you know you'd like to attend this off-site event, please purchase your tickets in advance.

If there are any questions about exhibitor registration, attendee registration, memberships, or the off-site event feel free to contact me at any time.

Thanks, and I look forward to seeing you in Orlando.

Daniel Appelbaum
HMS Treasurer



Register Today!
2018 HMS Biennial
Symposium

Member Registration
Non-Member Registration
Exhibitor Booth Registration

<http://heavymovablestructures.org/2018-biennial-movable-bridge-symposium/>

HEAVY MOVABLE STRUCTURES, INC.
2018 BIENNIAL SYMPOSIUM
October 22, 23, 24 & 25, 2018

CODE

Renaissance Orlando at SeaWorld®, Orlando, FL
6677 Sea Harbor Drive Orlando, FL 32821

*Please Make Hotel Room Reservations Directly with the Renaissance (a Marriot Property).
Call (407) 351-5555 OR Use Reservation Link on HMS Website*

MAIL-IN REGISTRATION FORM

>>>PLEASE PRINT<<<

DATE: ____/____/____

ATTENDEE'S NAME _____ 1st name (for nametag) _____

COMPANY _____

ADDRESS: _____

CITY: _____ STATE/PROVENCE: _____ ZIP: _____ - _____

COUNTRY: _____ E-MAIL ADDRESS _____ Phone No. _____

Spouse Name: _____ (If Attending)

PAY NOW BY CHECK or REGISTER ON-LINE @ Heavymovablestructures.org

(Note: To receive Member pricing, Membership Dues must be paid before April 30, 2018)

ATTENDEE: ☐ \$590.00 NON-MEMBER ☐ \$490.00 ELIGIBLE HMS MEMBER
MEMBER - ID# _____

GOV. EMPLOYEE: ☐ \$475.00 NON-MEMBER ☐ \$375.00 ELIGIBLE HMS MEMBER
MEMBER - ID# _____

STUDENT: ☐ \$275
University/College _____

SPOUSE REGISTRATION: _____ ☐ \$275.00

(Must wear ID Badge while in Conference, Exhibit & Dining areas)

\$75.00 EARLY REGISTRATION BONUS (Must be postmarked by July 31, 2018)*

<u>Example:</u>	\$590 Non Member	<u>Payment Amt</u>	_____	Base Registration Above
	\$ 75 Early Bonus	<u>Subtract</u>	_____	*Early Registration Bonus
	\$ 275 Spouse	<u>Add</u>	_____	Spouse (If Applicable) \$275.00
	\$790 Total Due	<u>Total Due</u>	_____	

Mail this Registration Form with Check payable to: **HEAVY MOVABLE STRUCTURES.**
HMS Symposium Registration, C/O Jonathan Kohler, HDR 701 Xenia Avenue South, Suite 600
Minneapolis, MN 55416, 763.278.5967

>> OR --- REGISTER ON-LINE <<

MASTERCARD, VISA, DISCOVER, and AMEX NOW ACCEPTED ON OUR WEBSITE:
HEAVYMOVABLESTRUCTURES.ORG

REFUND POLICY

WRITTEN REQUEST POSTMARKED or Email **BEFORE SEPTEMBER 21, 2018**..... 100% REFUNDED
WRITTEN REQUEST POSTMARKED or Email **BEFORE OCTOBER 5, 2018**..... 50% REFUNDED
*** NO REFUNDS AFTER OCTOBER 5, 2018 ***



MOVABLE BRIDGE HALL OF FAME

J.A.L. Waddell

Inventor of the Vertical Lift Bridge

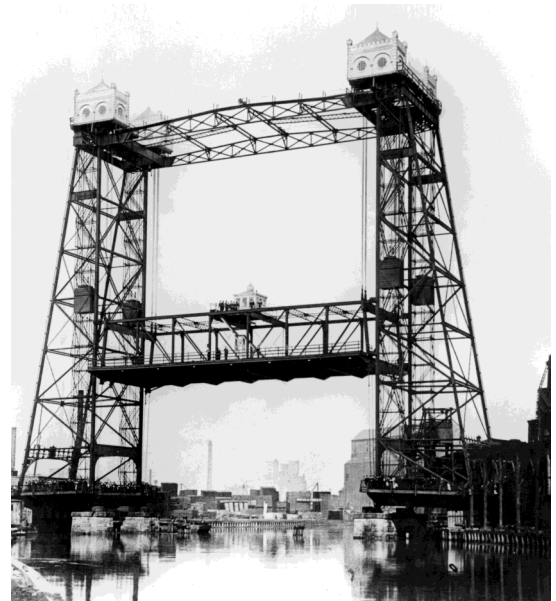
John Alexander Low Waddell was born in Port Hope, Ontario, Canada, on January 15th, 1854. He attended public school in Port Hope and then attended Rensselaer Polytechnic Institute, in Troy, New York, where he graduated with a degree in civil engineering in 1875. He began his professional career as a draftsman in the Marine Department of Ottawa, Canada, where he spent a few months designing buoys, lanterns, and similar marine appliances.

He had a series of jobs after that, including rodman on the Canadian Pacific Railway in western Canada, engineer for a coal mining company in West Virginia, where he did the surveying both above and below ground, and designed and built a ventilating shaft and other mine structures; and chief engineer for a bridge building firm in Iowa.

In 1882, Waddell was invited by the Japanese government to take the position of Chair of Civil Engineering in the Imperial University of Tokyo. He remained there for four years, writing his first book, *The Designing of Ordinary Iron Highway Bridges*, (1884, Wiley & Sons) and his second book, *A System of Iron Railroad Bridges for Japan*, published in 1885.

Upon his return to the United States, he became the western representative for the Phoenix Bridge Company in Kansas City, Missouri. On January 1, 1887, he opened his own private practice located in St. Louis MO, JAL Waddell (years) Waddell & Sons (years), Waddell & Hedrick (years) and Waddell & Harrington. After parting ways with Harrington in 1914, Waddell moved operations to New York City and formed Waddell & Hardesty (changed to Hardesty & Hanover in 1945). One of his first jobs was the reconstruction of the bridge over the Missouri River at Fort Leavenworth, Kansas.

Waddell soon became widely known for his movable bridge designs. In 1893, his Halsted Street Bridge over the South Branch of the Chicago River, constructed for the City of Chicago, became the world's first modern vertical lift bridge. In the years that followed, Waddell continued to be an innovator in movable bridge design and took out numerous patents for improvements to movable bridges. Over the years, he continued to apply innovative thinking to his bridge designs. The Armor, Swift, Burlington Bridge in Kansas City, for example, completed in 1917, was designed as a double-decker vertical lift bridge with the lower level carrying



THE HALSTED STREET BRIDGE WAS THE WORLD'S FIRST MODERN VERTICAL LIFT BRIDGE.

rail traffic and the upper level vehicular traffic. When the lift was raised, the lower level telescoped upwards so as not to prevent disruption of upper level car traffic while boats passed below.

Waddell's patents included the following:

1893: The modern vertical lift bridge

1894: The Waddell "A" Truss



ONE OF TWO SURVIVING EXAMPLES OF A WADDELL "A" TRUSS.

1898: Improvements to suspension bridges

1898: An automatic jetty for deepening tidal ways – featuring a continuous door, hinged at the top, which would open readily and permit the tide to flow into the harbor freely, but close automatically and force the outgoing tide to flow through a narrow channel (with Ira Hedrick)

1909: A lift bridge where the motive power for raising and lowering a movable span may be supported by and travel with the span structure (with John Harrington)

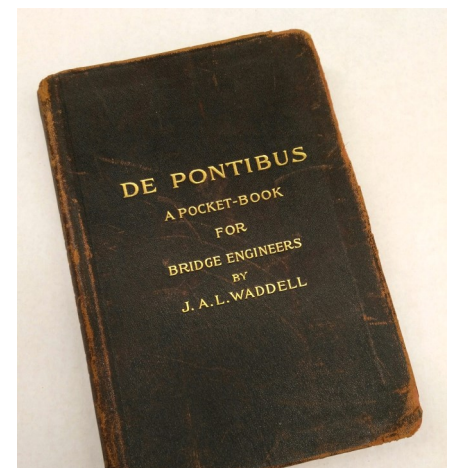
1910: A double-deck lift bridge where the upper level is permanent, and the lower level is movable

1910: A lift bridge where the movable span is raised and lowered from separate and disconnect towers

1910: An improved carrying axle and mounting for bascule bridges

1913: Means for carrying a fluid conduit between the towers of a lift bridge.

Over the course of his career, Waddell designed or oversaw the design of more than 70 bridges. Though he favored vertical lift over others, he also designed numerous bascule and swing bridges. His first swing span design was in 1895 over the Missouri River at East Omaha, Nebraska. He wrote a great many papers and presented them to a variety of groups, especially favoring graduating engineering students. He also published several important books, including *De Pontibus* (1898), a pocket book of bridge engineering; and the follow-up, the massive and comprehensive *Bridge Engineering* (1916), among others. One of his primary missions was to share his knowledge with the engineering community in whatever ways he could. He traveled the world extensively and met with foreign dignitaries as well as offering lectures to eager audiences.



DE PONTIBUS WAS JUST ONE OF MANY BOOKS THAT JAL WADDELL WROTE.

Waddell received numerous honors from foreign governments, including the Order of the Rising Sun with the rank of Knight Commander from the Emperor of Japan.

Waddell passed away at his home in New York City in 1938, at the age of 84.



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