



# Iron & Steel Preservation

October 29, Wednesday 2014



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Greetings,

## *Save the Date*

Iron & Steel Preservation Workshop

March 9-10, 2015

Lansing Community College, Lansing, Michigan

### March 9th

Speakers will present on research and preservation projects for the repair, rehabilitation, and restoration of iron and steel.

### March 10th

Demonstrations and hands-on activities of industrial tools used in the repair, rehabilitation, and restoration, of iron and steel, led by LCC expert craftsmen and instructors.

### CEU's

LCC is accredited by the International Association for Continuing Education and Training as an IACET education provider and will issue Continuing Education Units (CEUs) to participants at the end of each conference day.

### Scholarships

Scholarships to attend the ISP workshop will be awarded to undergraduate and graduate students in welding, engineering, historic preservation and related fields.

## March 9th Luncheon Speaker

"Volunteers Make the Difference"

Dan McCain,

President of the Carroll County Wabash & Erie Canal Association

[Volunteers Make the Difference](#)

[Wabash & Erie Canal](#)

## Repair, Rehabilitation, and Restoration Tools

This workshop has the goal of increasing the number of engineers, designers, builders and contractors who can confidently specify industrial processes for the repair, rehabilitation and preservation of metals using both current steel fabrication methods and historic technologies.

### Repair

Repair of critical members of a bridge or building requires the knowledge of industrial processes and the selection of the applicable process for a particular repair application. Two of the most popular arc welding processes used for onsite repairs are the Shielded Metal Arc Welding (SMAW) and the Flux Cored Arc Welding (FCAW) processes, both processes will be demonstrated at the March ISP workshop with hands-on opportunities for workshop participants. Repair, Rehabilitation, and Restoration of Metals

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Flux Cored Arc Welding (FCAW)    Shielded Metal Arc Welding (SMAW)    Padding Section Loss with SMAW

**Rehabilitation**

Replacing a metal truss bridge or building with a new structure may not be cost effective for a community, but many of these structures can be brought up to current standards such as the American Association of State Highway and Transportation Officials (AASHTO), American Institute of Steel Construction (AISC), and the American Welding Society (AWS). With the careful selection and application of industrial processes, along with engineering innovation, a rehabilitation project can extend the service life of a culturally significant bridge or building.



Braze Welding    Flame Straightening    Field Riveting

**Restoration**

If a bridge or building is declared historically significant, then the Secretary of the Interior's Standards for the Treatment of Historic Properties often governs. Repair, rehabilitation, and restoration of original historic metals with current industrial tools such as the arc welding process, flame straightening, brazing, and riveting can save and protect much of the original metal. ISP workshop participants will have a better understanding and greater sensitivity toward existing metal structures and fabrication technologies.

Those attending the ISP workshop will learn through lectures and demonstrations trades and skills used in the preservation of metals. The industrial tools that are demonstrated are used in industry today. The ISP is of benefit even to those for whom preservation projects represent a relatively small percentage of their work, as the skills learned at the ISP workshop are also valued for repair, maintenance, and new construction.

**Program Fund and Scholarships**

The Iron and Steel Preservation Program Fund at the Lansing Community College Foundation supports preservation courses and the annual ISP workshop and provides scholarships to students whose fields of study relate to the preservation of metals. The scholarships fund students from colleges and universities throughout the United States to attend the Iron & Steel Preservation workshop.

Your support makes these scholarships possible. Please consider contributing to the Iron and Steel Preservation Program Fund. The Lansing Community College Foundation is a nonprofit 501(c)(3) corporation.

**Belleville Bridge**

American Public Works Association (APWA) project of the Year, 1996

Read Michigan Wayne County winning submittal to the APWA for its project to relocate and replace the historic [Belleville Bridge](#).

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