Minnesota The Mossenger Educational Facility Management Professionals July 2015 NEWSLETTER

The "Tool Box" for Educational Facility Management Professionals

## 2015 MASMS State Conference Registration is Now OPENH

THURSDAY October 1st & FRIDAY October 2nd, 2015 Education—Trade Show—MASMS Banquet—Entertainment - Networking Holiday Inn, St. Cloud MN

Keynote Speaker—Thursday October 1st at 8:00 AM Mr. Joe Schmit, Sports Broadcaster/Community Leader/Author Silent Impact: Influence Through Purpose, Persistence and Passion In this high energy, high impact presentation loaded with humor, Joe Schmit

In this high energy, high impact presentation loaded with humor, Joe Schmit inspires and teaches you how to ramp up the profound power of your influence. Through research, Joe has discovered that we make our biggest impressions when we are not trying to be impressive. You can become an "Impact Player" who makes everyone around you better just by being there.

## **40 Educational Sessions to Select From**

This year's conference provides educational sessions that are beneficial to all areas of Building & Grounds!

**GREAT TRADE SHOW** Your opportunity to meet and visit with vendors. At this Expo you will find 180+ Facility Management Vendors all under one roof!

**PRESIDENTS RECEPTION and BANQUET** Enjoy an evening with your peers networking, relaxing and honoring achievements.

## TEN \$500 BUILDING AND GROUNDS GRANTS TO BE AWARDED

During the Trade Show on Thursday October 1, 2015 there will be drawings for ten (10) \$500 Building and Grounds Grants to be used for a building and grounds project of the schools choosing! If you register for the conference, you are automatically in the drawing! (Must be present to win).

NETWORKING Three days to network and learn from your peers!

WEDNESDAY SEPTEMBER 30th, 2015

Dollars for Scholars Golf Event, Sauk Rapids MN Business Member Appreciation Reception, St. Cloud Holiday Inn

## to to www.masms.org for registration forms



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MASMS



### **New MASMS Educational Members**

Geri Cook, St. Paul Schools Scott Peterson, Robbinsdale Schools Colin Green, Children's Museum of Southern MN Linda Votruba, St. Mary's University Jason Jensen, Roseville Schools

## **New MASMS Business Members**

Max Bahr, Hiller Commercial Floors Jeffery Reiter, Custom Builders, Inc. Brent Wavra, Commission Solutions Paul Kubista, Twin City Seed Company Kevin McGavley, UNESCO, Inc. Scott Stusynski, Cole Papers, Inc. Mike Domin, National Joint Powers Alliance Todd Farris, Lovegreen Machine Safety Thomas McApline, 24Restore James Neumann, State of MN (Boiler Inspector) Mark Kotten, Kraus Anderson Construction Co. Angie Lueschen, IdentiSys Inc. Jen Gerster, IdentiSys Inc. Tim LaDuke, FourMation Sales Tory Miller, LHB Phil Fisher, LHB





Mike Remington, Inspec MASMS Vendor Representative

### The Value of Networking

One of the many advantages of MASMS is the tremendous networking opportunities. Many people feel that the networking MASMS provides its members is one of its greatest values as an organization. Not only does MASMS provide a fabulous opportunity for vendors to network with school members, but also with other vendor members too. Consider joining one of the many committees that MASMS has, as joining a committee not only helps MASMS further their goals as an organization but also provides you with increased opportunities to get to know other vendor members and school members better. Also, another networking opportunity to make you aware of is that MASMS is creating a Northwest Chapter (in addition to the existing Metro, Southern and Northern Chapters). Consider getting involved in this new Northwest Chapter as this is just another great networking opportunity that MASMS is providing their vendor members.

## \$1,000 MASMS Grant to be Awarded to a MASMS Member School District

MASMS will be awarding the school district of a MASMS member a grant for \$1,000. The project theme this year is "getting students involved in a facility and/or grounds project". This grant will be awarded Thursday October 1st, 2015 at the MASMS conference banquet.

This grant is to be used in your school for a project that involves students. The project will need to be identified by August 1, 2015 and submitted to MASMS. All applications are reviewed by the MASMS Executive Board and a winner will be chosen from the submissions.

#### MASMS suggests that you try and involve the students right away—get them involved!

- Some project ideas include:
- -Landscaping (trees and/or shrubs)
- -Start or revitalize a nature center area
- -Install a low maintenance garden
- -Recycling and/or waste reduction
- -Sponsoring a field trip(s) related to facility and/or grounds -Building project

#### If you are interested in this opportunity please complete the following steps:

- 1. Identify the project-Provide MASMS with an overview of the project
- 2. Provide MASMS with a timeline for the project
- 3. Email this information to ruth@masms.org

We look forward to receiving your project ideas and to awarding this to one of our member schools this fall!

### MASMS BOOT CAMP

July 2015 - We still have a few spots left!

Wednesday July 22nd & Thursday July 23rd, 2015 Location: St. Cloud MN (Holiday Inn) **Two day course that covers the basics of school facility management.** 

**Topics covered:** Best Practices, Training, Equipment Needs, Management Tools, Health & Safety, Inspections/Checklists, Budgets and Staff Management

**Course Description:** This course will provide practical experience and proven techniques to help improve skills in the facilities management field. We will describe today's best maintenance practices and show how other schools have developed high performance facility departments.

**Cost:** MASMS will cover the cost of this training. This includes cost of class, hotel room for Wednesday night (and Tuesday night if your drive is more than 1.5 hours away), and all meals. (Meals include: Wednesday lunch and dinner; Thursday breakfast & lunch; break for both days.) **To Register contact the MASMS office at ruth@masms.org** 

The Messenger

## As Time Marches On, So Should Your Roofing Philosophy

Submitted by: Fred King, Inspec

A local metro School District begins to replace roofs which were installed in 1976-1977. The roofs which are being replaced were traditional 4-ply gravel surfaced built-up roofs. A local public housing group experiences 28 years of ballasted EPDM roof system performance.

So many times when discussing reroofing system alternatives, an owner will focus on wanting a roof warranty. Although warranties can be beneficial, serious consideration should be given to three other items:

- 1) Proper design and selection of materials
- 2) Proper application by a qualified contractor
- 3) Proactive maintenance

The roofing industry benchmark of successful performing low slope roofing had been about 20 years, however many owners have obtained even longer roof system life in order to have fewer roof replacements in their facility's life expectancy of 75 to 100 years. By enhancing the roof design, providing low maintenance/ maintenance free detailing specific to your building, selecting time tested and proven materials, along with insuring the proper installation with ASTM testing procedures, you increase the odds tremendously of roofs performing 25 - 40 years and possibly longer.

The three critical components for a successful roofing project are further explained:

**Sound Roof Design**: Creating an appropriate roof system for the conditions/structure using time-tested materials. Visualized through construction documents, the design delineates proper drainage, attention to detailing, material selection and installation refinement, addressing of code requirements, and incorporation of the client's needs/ expectations.

**Quality Construction:** An experienced roofing contractor following the construction documents to build the roof that was desired. Construction observation and testing by an independent party to verify conformance to the construction documents and contract.

**Proactive Maintenance:** Protection of the roof asset. Annual surveys of the roof system followed by maintenance so that it stays on track with its performance expectation.

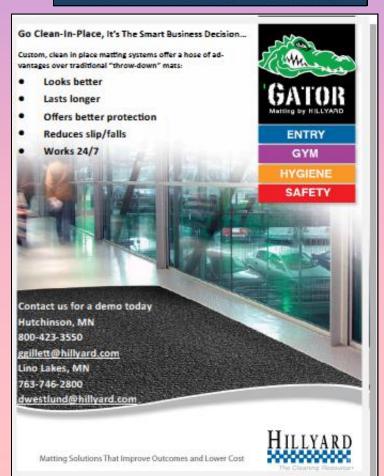
Nondestructive testing (NDT), when applicable, to catch small problems and avoid surprises. An example of NDT would be an infrared scan by a certified thermographer on a built-up roof system that contains a vapor barrier, in order to look for trapped moisture in the roof system.

## FACILITIES MATTER

Do you need a building tune up, energy modeling and analysis, or an assessment of your facility systems?



Let ATS&R assist you in optimizing your facilities to provide safe and comfortable environments for your students and staff. Please contact Terry at 800.545.3731 or tstofferahn@atsr.com.



# The Messenger



## Health & Safety Section

The MASMS Health & Safety Committee supplies information for this section each month. If you have a specific topic you would like to see covered, just let the MASMS office know (ruth@masms.org).

## July is UV Safety Month and this is the time of year when outdoor job duties are impacted by the sun. Please read the following safety information on UV protection below and be aware during your outdoor work!

At one time or another we've all had a bad sunburn and we know how bad it can hurt. In addition, prolonged, unprotected exposure can damage your skin and cause premature lines, freckles, sun spots, and skin cancer.

UV rays react with a chemical called melanin that's found in most people's skin. Melanin is the first defense against the sun because it absorbs dangerous UV rays before they do serious skin damage. Melanin is found in different concentrations and colors, resulting in different skin colors. The lighter a person's natural skin color, the less melanin it has to absorb UV and protect itself.

## The best way to protect your skin from UV light is by wearing a sunscreen when you are outside. Here are some sunscreen facts and tips:

- Using sunscreen can reduce your chances of burning but it is not going to allow you to spend unlimited time outdoors without risk of skin damage.
- Sunscreen must absorb into the skin to be effective. Apply it about 30 minutes prior to going into the sun so as to let the sunscreen absorb into the skin.
- It is widely recommended that people use sunscreen with an SPF (sun protection factor) of 15-30. An SPF of 30 can block up to 97% of the harmful UV rays. Going higher than 30 on SPF hasn't shown to make a positive difference.
- Sunscreen needs to be reapplied every 60-90 minutes, sooner if you're in the water. (This is true even if you use "waterproof" sunscreen, as it is not truly waterproof, just water resistant.).
- Not all sunscreens protect you from UVA and UVB light. Check the label and use one that is protects the skin from both.
- You can get a sunburn through your clothes! For example, a white t-shirt gives only the same protection as a sunscreen with an SPF of 5. And it's even less effective if it is wet.

One of the greatest threats to your eyes is invisible UV light. Long-term exposure to invisible ultraviolet radiation can damage our eyes and lead to vision loss. Everyone is at risk, especially children.

#### Let's look at some tips to protect our eyes:

- The most important thing you can do to protect your eyes is wear sunglasses that block ultraviolet rays.
- Do not be deceived by color or cost. The ability to block UV light is not dependent on the darkness of the lens or the price tag.
- Make sure your sunglasses block 99 percent or 100 percent of UV rays and UV-B rays.
- Ideally, your sunglasses should wrap all the way around to your temples, so the sun's rays cannot enter from the side.
- In addition to your sunglasses, wear a broad-rimmed hat to protect your eyes.
- Do not be fooled by a cloudy day. The sun's rays can pass through the haze and thin clouds.
- Even if you wear contacts with UV protection, remember your sunglasses.
- Sunglasses should be worn whenever outside. It is especially important to wear sunglasses in the early afternoon and in higher altitudes, where UV light is more intense. Typically that is 11:00 a.m. until 3:00 p.m.

This information provided by OSHA Safety Toolbox Topics: <u>http://safetytoolboxtopics.com/Seasonal/</u>

## Not All Burners are Created Equal

#### Submitted by: Brett Stueland, RM Cotton, Inc.

Most people take the burner for granted when ordering or specifying a gas fired piece of equipment such as a boiler. They can be very particular about the other components or features on the equipment, but tend to accept whatever burner the manufacturer provides not knowing that many manufacturers can provide various brands of burners. The following will hopefully provide you with valuable information to help you select or specify a power burner.

Operation, serviceability, longevity & total cost are all effected by the design and/or the features on a power burner. Let's look at each of these in more detail below.

#### **Operation**

All burners mix fuel and air, create a flame and provide heat. However, some offer standard features that provide higher efficiency and greater customer satisfaction.

There are two basic methods for mixing the fuel and air: using a linkage system or using a linkageless (parallel positioning) system. The linkage system has been used for many years but unfortunately has many inefficiencies. It uses various linkages (rods, connecting arms, swivels, etc) that connect a motor to the air damper and the gas butterfly valve (and/or oil valve). In theory, if the flow curve of the butterfly gas valve and air damper could be matched perfectly, a linkage system could provide accurate combustion over the entire firing rate. However, the shape of the gas curve and air curve are not the same making it

near impossible to achieve proper combustion throughout the firing range. Furthermore, these systems can have a great deal of excess play or slop due to mechanical tolerances of the swivels or ball joints. This movement or slop along with the different curve shapes leads to inaccuracy, terrible repeatability and ultimately poor efficiency.

Linkageless systems are the most efficient method to mix the fuel and air. We have seen improved efficiencies up to 15%. This system uses servo motors directly at the point of use (gas valve, air damper, oil valve) thereby eliminating the linkages and all inefficiencies associated with them. It precisely controls the fuel and air independently at infinite positions between 0-100% firing resulting in the highest combustion efficiency possible. Linkageless systems also provide some useful features such as "less than light-off positioning". That is, for consistent and safe light-off, the burner may light-off at 20% firing rate, and then operate anywhere from 5-100%. In addition, post-firing, the air servo can close the air damper to 0% which reduces standby losses and eliminates the need for stack dampers. Other beneficial features that may not be standard on all brands of linkageless controls:

Programmable directly from burner mounted controller. No Laptop required.

Adding or deleting points without changing the entire curve.

Changing curve while burner is firing.

No redoing curve after replacing a servo motor.

Minimizing the sound level of a burner provides a more comfortable environment for the boiler room as well as the surrounding rooms. Using a reverse curve fan blade blower along with an insulated intake housing will help reduce the burner noise.



Continued on Page 6

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## Not All Burners are Created Equal (Continued from Page 5)

#### **Serviceability**

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Having a burner that is easily serviced will save time and therefore money. All burners will periodically need access to the combustion head for maintenance. Some burners are equipped with slidebars or hinges to allow quick access to the combustion head. Others do not have these devices making it more difficult resulting in a higher labor cost.

Burners have the capability to adjust the insertion depth of the diffusor for fine tuning. Some burners have an external adjustment which allows adjustment while the burning is operating. Others require the removal of the drawer assembly to make adjustments when the burner is off. Therefore, you may have to turn burner off, remove drawer assembly, make adjustment, install drawer assembly, turn burner on, observe flame and repeat as necessary. Again, added labor cost.

#### Longevity

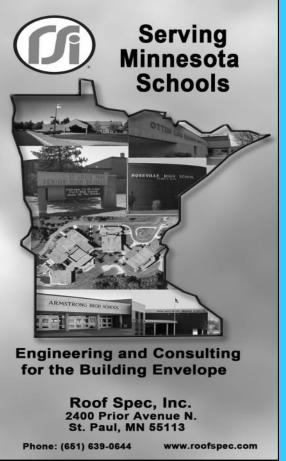
Pressure atomized duel fuel burners either have an integral oil pump that is driven off of the burner blower motor or they have a separate direct drive oil pump. Integral oil pumps run anytime the burner is running regardless if it is firing on gas or oil which subjects the pump to needless wear unless the pump coupling is removed. A better solution is to have a separate direct drive oil pump that only operates when firing on oil. Some burner manufacturers ship this separate remote pump loose for field mounting and others mount the separate pump on the burner as standard resulting in a lower installed cost.

Burner blower fan motors can be either Open Drip Proof (ODP) or Totally Enclosed Fan Cooled (TEFC). A TEFC motor offers more protection from the dust and hazards of a burner or boiler environment. Some burner manufacturers provide a TEFC motor as standard.

#### Total Cost

Total Cost should include the cost of the burner as well as any additional installation costs and service costs. All of the above points have a cost or cost savings associated with them and should be considered when evaluating various power burners for new or retrofit installations. Perhaps the intangible point of product representation should also be included. RM Cotton is fortunate to have an experienced and knowledgeable service department that is familiar with various power burners as well as linkageless control systems.





## School Indoor Air Quality Trainings

Submitted by Dan Tranter, M.P.H.

The Minnesota Department of Health (MDH) is holding four school indoor air quality trainings in Fall 2015. The training will prepare school officials to assess their buildings and policies, and implement plans to address identified issues. After completion of the training, attendees will receive a certificate.

**Who:** School officials, service providers, health professionals, and others that want to learn more about school environmental health laws, guidance and resources

Public school districts that need an IAQ Coordinator (expect to lose their current person or want a second person trained). Individuals that attended a previous IAQ training meet best practices; there is no 'refresher training' expectation. Previous attendees, however, may want to attend again as the curriculum has changed over the years.

### Where and When:

Roseville: October 7, 2015—8:30 am – 12:00 pm North Mankato/Marshall: October 13, 2015—10:00 am - 2:00 pm Staples: November 3, 2015—10:00 am – 2:00 pm Bemidji: November 4, 2015—10:00 am – 2:00 pm

For more information and registration is available at: www.health.state.mn.us/divs/eh/indoorair/schools



Minnesota Department of

Education



# The Messenger

## Maple Lake Schools was the recipient of the 2014 MASMS \$1,000 Sustainable Grant!

The grant money was used for a landscaping project, with students from all age groups participating!

Here are a few pictures from their project;

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## **The MASMS Memo Board**

#### MASMS EXECUTIVE BOARD

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#### **CHAPTER DIRECTORS:**

Northern—Joe Arthurs, Hibbing Schools Southern—Kevin Johnson, Red Wing Schools Metro—Don Hanson, So Washington County Schools

## MASMS Custodial / Grounds / Maintenance Days held in June Over <u>560</u> attended from MASMS member schools!

The Metro, Northern and Southern events were a great success! Thank you to all who attended and helped with these events. A special thank you to the vendors who took their time to be at the vendor showcases and present educational sessions!

## MASMS CALENDAR

September 30, 2015 October 1, 2015 October 2, 2015 October 28, 2015 November 10, 2015 November 19, 2015 December 8, 2015 December 16, 2015 December 17, 2015 Scholarship Golf Event MASMS 2015 Conference MASMS 2015 Conference Southern Chapter Meeting Metro Chapter Meeting Northern Chapter Meeting Metro Chapter Meeting Southern Chapter Meeting Northern Chapter Meeting

### MASMS OFFICE

Ruth Kraemer, Executive Administrator Phone: 320-685-4585 Toll Free: 888-429-3884 Fax: 320-685-4592 Email: ruth@masms.org To unsubscribe from this newsletter, please contact ruth@masms.org

#### A note from Ruth...

Thank you for all of the well wishes and concerns regarding my broken ankle. I will be back to normal soon and can't wait to get out of the boot!! I truly appreciate all the healing thoughts. Thank you! Ruth



Because your children's safety is priority number one.

When severe weather demands quick decisions. So facility management is never out of touch.



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