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*Northern Illinois IFMA*

## September 6, 2005 Aspire 4110 Litt Dr in Hillside

Speaker: Marcy Nelson Hadley

Topic: Aspire

About our Program and Speaker:

Marcy Nelson Hadley, Vice President of Quality Enhancement, will present to our group about Aspire. She will discuss what Aspire does and how they can help you.

About our Host Site:

Aspire was founded in 1960 by a small group of concerned parents who identified a need for specialized services for people with mental retardation and developmental disabilities such as autism, cerebral palsy, and epilepsy. Today, early intervention services are provided for children birth to three years of age; beginning at age 18, a complete array of day, employment and residential services for adults are available. Families are at the heart of Aspire's mission. Their decisions and support are the guiding elements in Aspire's services.

Aspire Industries, a vocational training program located on Litt Drive in Hillside, provides a structured employment setting where functional vocational skills are developed through a variety of paid work opportunities.

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## President's Message

“Back to School” might mean report cards and lunch pails to our children, but this year it also means that facility managers can earn continuing education credits with a free lunch, without leaving town! Yes, the NI Chapter is offering an exciting 2 day seminar right here in Itasca at the offices of Office Max (formerly Boise Office Solutions). Member Dawn Klaetsch, CFM of Office Max, and Marc Adelman, CFM, AIA of TKA+Partners are putting the finishing touches on a lineup of speakers that include “The Future of Facility Management”, “Interior Ventilation”, “Partnering Design with Maintenance”, “Generational Diversity at Work”, Sustainability Issues”, “New and Emerging Technology Issues in the Workplace”, and a panel discussion related to Relocating a Company. Members can attend one day or two, at the reasonable rate of \$125 per day. Thanks to OM Workspace for sponsoring breakfast both days of our educational seminar. Also, we would like to thank each Miliken Carpeting and Teknion Furniture for sponsoring our lunches during the seminar and the hospitality of OfficeMax as our host site.

So mark your calendars for September 29<sup>th</sup> & 30<sup>th</sup>, and be sure that you don't miss out on a very informative (and tasty) learning experience. Thanks to Marc and Dawn for their efforts putting this excellent program together. Watch for the upcoming announcement with all speakers and topics scheduled.

I am happy to announce that the Career Services committee, which provides career counseling and job opportunities searches to NI members will be charged with new energy by the new chairperson Cathy Manchester of ABM Security. Watch for upcoming announcements of the rejuvenated fm career meetings to be held before each monthly program meeting. Cathy will be coordinating timing of the meetings with Seaby Bess of Door Systems Inc., our excellent program committee chair.

Watch for a new feature to be added to our website in the coming months, which will feature the short biographies, with photos, of the entire Leadership Group of NI IFMA. This



feature will provide an opportunity to recognize, who in our organization is providing leadership through committee volunteerism or financial sponsorship. It will become easier to make new friends at IFMA when you can put names with the faces that you see at our monthly meetings.

That's all for now; I'm going to call Kathy Daloia to sign up for the NI Seminar on September 29<sup>th</sup> and 30<sup>th</sup>.....I hope to see you there!

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# NI IFMA'S EDUCATIONAL SEMINAR

Host:

**OfficeMax (Formerly Boise Office Solutions)**  
150 E. Pierce Place, Itasca, Illinois

**Thursday, September 29, 2005**

**Breakfast Sponsored By OM Workspace 8:30 - 9:00 am**

**Session 1—"Technology Affecting the Workplace" 9:15—10:15 a.m.**

Michael Kuppinger, P.E., RCDD/NTS, Environmental System Design, Inc.

From Call Centers to Data Centers, internet trading to international markets, our office environment is becoming a mission critical facility. This presentation will look at the technology drivers affecting our work place from IT equipment advances to Government regulation.

Mr. Kuppinger joined Environmental Systems Design, Inc. as a Senior Electrical Engineer with 15 years experience. In 1994, he was made founding Principal of the Communications Technology group. He currently manages the Critical Facilities, Commercial and Technology groups as a Senior Vice President.

**Session 2—"Partnering Design & Maintenance" 10:30—11:30 a.m.**

Steve Spencer & Kristi Zook, State Farm Insurance

This presentation will outline the steps taken by the Interior design Unit and the Facilities Maintenance Unit to develop a team dynamic and a methodology for defining a company standards program to be utilized in building projects. The aim is to accent the need for the collaboration of the two units in the developing a process insuring aesthetically pleasing and maintenance friendly attributes. Attendees will discover proven design/maintenance ideas developed through the partnership that can be applied to their own organizations.

Kristi is an interior design graduate of Western Michigan University and joined State Farm after graduating magna cum laude in 1990. She has been involved with establishing company guidelines and standards for furniture, finishes, and accessories, as well as assisting with the interiors of many of State Farm's owned and leased buildings nationwide.

Steve joined State Farm in 1994 as a specialist in cleaning and interior maintenance. Steve coordinates and teaches the Interior Maintenance School and is responsible for all facility cleaning contract specifications.

**Session 3—"The Myths of Real Estate Costs" 11:45 a.m.—12:45 p.m.**

Bill Black & Ken Kirk of Haworth

Innovation in commercial construction does not necessarily translate to higher costs. By exposing the hidden costs and waste of traditional construction and presenting the efficiencies of innovative construction practices, committed teams can experience schedule, labor, energy and productivity savings. This course is for CFOs, real estate, facilities, architectural and design professionals looking for ways to create efficient, sustainable, profitable real estate.

Bill Black is the Director of Strategic Sales at Haworth in Calgary, Alberta, Canada, a manufacturer of modular interior solutions for commercial office space. Bill's construction and cost consulting background has enabled him to assist prospective clients, their design teams and contractors evaluate the change in scope and overall cost effect of implementing Haworth's approach to building out modular office interiors.

Kenneth Kirk has been involved in the contract furniture for 29 years and has worked for a variety of companies that includes Stow Davis, Atelier International, Smed and Haworth. Ken's primary focus since 1998 has been the introduction of the constructive solutions concept to the marketplace. Constructive solutions addresses the benefits and execution of high performance interiors to address the changing needs of corporate clients.

**Lunch Sponsored By Teknion 12:45—1:45 p.m.**

**Session 4—Sustainable Development; "The challenge and opportunity" 1:45— 3:30 p.m.**

Scott Deugo, Teknion

This presentation explores the vision of Sustainable Development, the challenges and opportunities faced by present generations, as we absorb and understand the paradigm shift necessary to ensure development today " meets the needs of the present without compromising the ability of future generations to meet their own needs". Topics discussed will include CSR (Corporate Social Responsibility), the "Triple Bottom line", and provide examples of the obstacles and opportunities facilities management face from customers and suppliers as they endeavor to do their best to support sustainable development.



Friday, September 30, 2004

**Breakfast 8:30 am - 9:00 am Sponsored By OM Workspace**

**Session 1—"Common Ventilation Concerns" 9:15—10:15 a.m.**

Rex Moore, CIH, Boelter & Yates

The presentation will address commonly occurring indoor air quality related ventilation problems. Discussions will cover the need to provide adequate amounts of outside air into office buildings and assure that it is properly distributed to occupants, problems with re-entrainment of building exhausts, problems with poor maintenance/design of HVAC systems and how to detect related ventilation deficiencies.

Mr. Rex W. Moore, CIH, CSP, LIH is Director of Technical Services for Boelter & Yates, Inc. Mr. Moore has a Bachelor of Science degree in Mechanical Engineering from Texas A & M University. Mr. Moore has over 33 years experience in chemical, noise, and radiation exposure assessments; indoor air quality investigations; ventilation system assessments/design; tracer gas testing, and noise control investigations.

**Session 2—"The Future of Facility Management" 10:30—11:30 a.m.**

Tim Springer, Ph.D., Hero Inc.

Facilities management was "born" in the turbulent business environment of the 1970s and 1980s, largely in response to the challenges of managing churn associated with changes in the workforce, technology, work processes and business organizations. In the intervening decades FM has grown and prospered. But is it yet a true discipline? This presentation will examine the factors leading to the present state of FM and the challenges as FM moves into the future.

Tim has been described as one of the top two or three experts in the world on issues of work behavior and the work environment. Tim is one of those rare people who can back up their academic credentials with consulting expertise and real world experience. Tim has contributed to several innovative workplace initiatives. Hotelling, as first applied at Ernst & Young in Chicago, was developed by the BOSTI team on which Tim played a key role. He worked with another group of experts on Andersen Consulting's Advanced Development Center in Dallas. He created several methods and measures that were adopted by other practicing professionals and continue in use today.

**Session 3—"Generational Diversity at Work" 11:45 a.m.—12:45 p.m.**

Betty Hase, ASID, Herman Miller

People are an organizations greatest asset. It is believed that diversity among the workforce renders richer collaboration resulting in increased innovation. Innovation is a major strategic focus in most organizations today. And many companies are concerned about keeping their most talented workers as well as attracting the best new talent. For the first time in workplace history there are four generations working side-by-side in organizations. Each generation has a different set of collective beliefs and values that are expressed by their attitudes and behaviors. This course covers the collective core values, workplace behaviors, and things that motivate each of the generations. There will be suggestions as to what type of physical workplace supports generational diversity.

Betty Hase is a workplace strategist with more than 20 years experience in researching, designing and developing work environments that support business goals. During her career with Herman Miller, she has developed a knowledge platform called "Evolutionary Workplaces" that ties the past, present and future workplace together.

**Lunch Sponsored by Milliken Carpet 12:45 - 1:45 pm**

**Session 4—"Moving your Company to a New Facility" 1:45—3:30 p.m.**

Joseph Cavolick, Cavolick Consulting Group

Panel discussion of industry experts outlining all requirements to conduct a successful move of your company.

Cost for one day is \$125. Cost for two day is \$250.

For information and to register, please call 847-821-8243 or e-mail [chapteradministrator@ifmani.com](mailto:chapteradministrator@ifmani.com).

## Overcome obstacles with pavement management planning for your parking lots

By: Chris Tanner, Rose Paving

Three of the biggest challenges facing facility managers today are balancing the facilities budget, meeting customer/employee expectations, and lack of time to complete work. Arguably, facility maintenance is the most adversely affected by these obstacles. With diminishing budgets and limited time and resources to make proper maintenance decisions, facility managers are sometimes forced to forgo or delay preventative maintenance on areas that should be a priority. As a result, the property fails to meet customer/employee demands and business suffers.

Surprisingly, parking lots, one of the most expensive areas for which a facility manager is responsible and also one of the most visible to the customer/employee, are the areas often deprived of proper maintenance. Do you remember the last time you examined your parking lot? It might seem an unlikely place to begin; but, in order to tackle common challenges facing the industry it is a good idea to start on the surface with a proactive approach to pavement maintenance.

Parking lot maintenance is a large part of curb appeal not to mention customer/employee safety and satisfaction. A parking lot is the first thing visitors or workers encounter before entering a property. If it is even slightly deteriorated, the first impression will not be as positive. That is why it is especially important to make the right maintenance decision at the right time concerning your asphalt or concrete investment.

At first glance, your parking lot may appear in good condition. But, it is important to take a closer look. Inspect the pavement for cracks, fading pavement markings, and other signs of failure or liability issues. Ignoring minor wear and tear on a parking lot can easily grow into major problems that will increase the cost to make repairs, straining an already tight budget. Even worse, increased repair costs might force you to forgo the maintenance altogether. Then, before you know it, the parking lot will need to be completely removed and replaced, a very costly reconstructive repair.

Preventative pavement maintenance is the most cost-effective solution to help project a positive image, provide a safe path for travel, and save time and headache in the long run. But, because facility managers juggle numerous maintenance tasks, it is virtually impossible to keep a close eye on one lot alone multiple parking lots. Since catching defects and making timely repairs is critical, facility managers must rely on a trustworthy service provider to address their unique business needs. Before calling on just any paving contractor, consider the following advice to avoid struggling with unnecessary or unbudgeted repairs, dissatisfied

customers/employees, and last-minute emergencies.

Low-bid paving contractors are plentiful nationwide; but, as the old adage goes, 'you get what you pay for.' Instead, look for a contractor that is well established and one that focuses solely on parking lot management. Parking lot management is a streamlined process to manage maintenance and repair procedures, throughout the lifecycle of the asphalt or concrete, for one or multiple parking lots in any location nationwide. This process relieves burden and eliminates guesswork for the facility manager because the entire project is managed from start to finish by a trusted expert. A reputable parking lot management contractor has an extremely capable staff of professionals, the ability to perform a multitude of services nationwide, and expertise in different regions of the country.

A highly effective parking lot management process incorporates a preventative maintenance approach known as pavement management planning or PMP. PMP is a systematic, long-term approach in optimizing pavement maintenance that ties together various maintenance options in one plan based on available funding. Any paving contractor can come out to a site and perform pothole repair, but this will only solve one problem area temporarily. With PMP, several maintenance approaches are used together, one to support the other. The resulting outcome compounds the advantages of each singular approach and significantly extends the life of the pavement. Furthermore, by planning for routine maintenance, facility managers are proactively reducing potential liabilities and last-minute repairs/emergencies rather than reacting after damage is already done. And, because it is a long-term plan, facility managers are able to budget well in advance for repairs, providing greater control over maintenance expenses.

A well-executed pavement management plan includes the following steps.

Initially, a physical inventory is conducted of each parking lot. Careful consideration is given to areas of automotive and pedestrian traffic flow, entrances and exits, drainage, islands, delivery zones, and dumpsters. Depressions, rutting, cracking by type and severity, potholes, and saw cut repairs are also noted.

Once the inventory is complete, a diagram of the parking lot is created to illustrate each damaged area and recommended repair. Next, pavement defects and recommended repairs are ranked from the most to least cost-effective repair; rankings should not be ordered by level of severity. The reason for this is simple: cost effective repairs in high traffic areas should take priority over fixing a defect in an isolated area.

## Prevailing Challenges

*Continued from Previous Page:*

While the defect may be more severe, correcting damages in high traffic areas will prevent future, more costly defects and/or potential liabilities from occurring.

Armed with a pavement inventory and maintenance alternatives, it is then possible to model pavement condition based on various rehabilitation strategies (maintenance procedures and timing) to determine future pavement condition and associated cost to reach the desired outcome. Strategies are further adapted according to goals and funding unique to each property. Finally, work schedules are set and maintenance is performed as scheduled.

Once a PMP is in place and operating, it is important to perform an annual site inspection in order to locate possible emergency repairs that may form during seasonal changes and to verify if rehabilitation strategies are producing predicted results. At any point during the plan, strategies can be adjusted to meet specific needs.

When faced with shrinking budgets, high expectations, and little time or resources to meet all the demands, it is especially important to prioritize and tackle projects that make the biggest impact on the bottom line. Being proactive with preventative maintenance on your parking lot is a much better solution than reacting to untimely emergencies or liability issues. Whether you have one lot locally or hundreds of lots nationwide, partnering with an experienced parking lot management contractor and implementing a pavement management plan will save dollars and valuable time between planned maintenance and unbudgeted repairs. This, in turn, will protect an asphalt or concrete investment, ensure customer/employee safety and satisfaction, project a positive image to help generate new and repeat business, and, most importantly, free up time so that you can concentrate on other important tasks and new challenges.

## CFM Review Group Forming

Northern Illinois will host its next CFM Review on November 19 and 20. Time, location and other details TBA.

The purpose of the group is to provide an overview of what to expect on the exam. Not sure if you are ready to sit for the exam. Then sit in on the study sessions. You will have a better idea after our classes. If you are ready to take the test, it cannot hurt to get some great feedback from some of NI's experienced CFM's before you sit for the exam.

Look for detailed information in next months NI News. In the meantime, contact Mark Kischner via E-mail at [MKischner@Comcast.net](mailto:MKischner@Comcast.net), if you plan to attend or have any questions.

Isn't it about time you took time to invest in YOU?

CFM's: Helping to lead this class is worth 10 maintenance points toward your recertification. We still need one CFM for each session.



**Attention CFMs:**  
**Earn recertification points by contributing an article to our newsletter. For article submission please forward your article to [gtoste4035@wowway.com](mailto:gtoste4035@wowway.com)**

## Congratulations, Gary Bergling, CFM!!

By: Mark Kischner, CFM

Exciting news! Northern Illinois has another new Certified Facility Manager. Our new CFM's name is (three colon fanfare)... **Gary O. Bergling, CFM.**

When I found out Gary became NI's newest Certified Facility Manager in July, I asked him to share the how's, why's, and who's with the rest of the class.

Gary first became a member in 1996 at the suggestion of Tom Skweres, the instructor for an Intro Facility Management class at College of DuPage. He rejoined in 2003 after a 2 year hiatus. When Gary rejoined IFMA, getting certified was part of his long range career plan.

Gary entered the profession with the Girl Scouts of DuPage in 1991, and was a facility manager until he left ChildServ in September 2004. He left to continue his education at the College of DuPage in preparation for the CFM exam. While taking classes, he consulted for ChildServ.

After over 14 years as a facility manager, Gary "...pursued certification as a CFM for two reasons. First, to demonstrate that the experience I had gained working in the small niche of FM I was in would compare with skills and experience of facility managers in other public and private sectors of industry. Second, I wished to practice my profession in general industry as the next logical step in my career, and achieving certification would open up more possibilities for me".

Gary felt he needed to enhance his education in three areas to be able to achieve a CFM certification. He took classes in Real Estate, AutoCAD and Building Mechanical Systems.

After completing the classes (with honors) he began in to prepare in earnest for the CFM exam. He read The Facility Management Handbook by Cotts, reviewed the CFM Study Guide, kept up on journals, attended IFMA meetings and our CFM Review, and did some independent study.

While at ChildServe, Gary and his staff received numerous recognition certificates and two Employee of the Quarter Awards.

He is particularly proud of two awards his agency achieved during his tenure at Girl Scouts of DuPage. The first award is a rarely handed out Clean Slate Award for excellence in risk management. The second, a special Environmental Excellence Award in 1995 given out by the DuPage Conservation Foundation. His master plan utilized native landscaping and storm water management techniques that were innovative for their time. The grounds were so well designed; the site was used as an educational tool for the Girl Scout outdoor programs. On second thought, most facilities still don't use those best practices.

Now that Gary has earned his certification he has put himself back on the job market.

He also plans to become a more active participant in IFMA. In fact, Gary notes "The demands of the profession change so quickly that keeping up with new initiatives and changes is essential to excelling, and a professional organization like IFMA is the best way to learn of new innovations and techniques."

Gary hit the nail on the head. Between the Chicago Chapter and ours, IFMA continues to add new CFM's to the Chicagoland Market. Additionally, there are other designations we "compete" with every day. Currently it is a buyer's job market. What a better way to show current and prospective employers you have what it takes to run their business. Having the CFM after my name has opened doors for me, let what those three letters represent open up your possibilities as well.

Northern Illinois will host its next CFM Review on November 19 and 20. Time, location and other details TBA. Please e-mail me if you have any questions about becoming a Certified Facility Manager or wish to be added to our CFM Review notification list (for all upcoming sessions). Isn't it about time you took time to invest in YOU?

And now, back to Gary. Please make sure to network with Gary and pass on any job offerings you are aware of and of course offer him your congratulations.

Gary Bergling, CFM. Ahhh, music to my ears.



## Did you Know? Clark Druesedow, CFM

**(Editor's Note:** Correction to last month's article. Due to software incompatibility the graphic for AC current did not translate to the web based News Letter correctly. To find a proper depiction of a "Sine Wave" simply search the Web and you will find it is a smooth flowing curve, not the straight lines as shown in last month's article. )

Each month I will be choosing topics relevant to IFMA core competencies that will assist in providing better understanding that can be used in day-to-day facilities operations as well as provide training and learning that may relate to questions typically seen on the facilities management certification exam. This month's topic:

### Finance – Time Value of Money

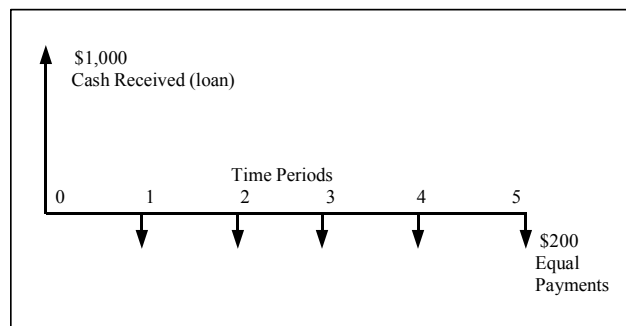
Nearly every Facility Manager will be asked to perform or assist in information gathering for financial decision-making within the company's business process. These financial decisions generally come into play when there is a need to choose between two or more alternatives. These alternatives can be simple. An example; choosing between two contracted maintenance services at a quoted fixed rate for a fixed number of months. There also can be complex alternatives; choosing between two leases with different base rents, rental increases, common area maintenance charges, build out incentive packages and showing the potential impact to the company's balance sheet and income statement. Another example of a complex alternative is the comparison of two different real estate transactions, their: first cost, depreciation expense, renovation costs, move in costs, ongoing maintenance, and residual value. The target of cash flow studies is to establish a financial ranking of the alternatives using a common basis. This process generally uses cash flow analysis focusing on the time value of money.

Let's not forget the potential of identifying revenue that may be generated by the use of an asset. If all cash flows are identified, the study can then be used in budgeting both capital and expense for current and future years. With a complete cash flow study, revenue and income can also be projected. All said, the Facility Manager must work closely with the Accounting Department to insure every relevant cash flow is identified and treated properly. This is then the basic rule of financial cash flow studies: *Insure all relevant cash flows are properly identified.* If items are missed or miss applied the study can be skewed in favor of an alternative that is not the best for the company. Although the entire process can be very complex it can also be used in simple terms and assist in quick financial decision-making for specific projects.

First we need to understand cash flow diagrams and some definitions for some of the terms used in the calculations:

**Cash Flow Diagrams** – These are linear depictions of cash being received or expensed over time.

With identification of each receipt and payment of cash depicted in a large transaction, which can analyze many cash flows simultaneously, these diagrams can become very complex. Diagrams are necessary to insure each cash flow is identified and placed in the correct time period. Note the following, which illustrates cash flow of a simple loan, without interest. (Positive cash flows are above the line and negative below.)



Since no interest was considered the Present Worth of the payments is equal to the starting loan value. If interest were considered, the payments would have to be increased to allow for cost of money and a factor applied reflecting the added money needed to pay for of the interest.

Now let's look as some definitions of terms used in cash flow calculations.

#### Definitions:

**i%** - Interest Rate (Also called cost of money)

**N** – Number of time periods used in the translation.

**Present Worth** – The value of a single or multiple receipt/expenditure of cash at the beginning point of the cash flow stated as a single amount of dollars at an assigned starting point in time. Examples would be: The value of loan payments, with consideration of interest, stated in today's equivalent dollars or the value of revenues received, with consideration of interest, stated in today's equivalent dollars.

**Future Worth** – The value of a single or multiple receipt/expenditure of cash at the ending point of the cash flow stated as a single amount of dollars at an assigned future

point in time. Examples would be: The value of payments to a savings account, with consideration of interest, stated in equivalent dollars at a stated future time or the value of expenses paid out, with consideration of interest, stated in equivalent dollars at a stated future time.

A simpler way to put it is Future Worth and Present Worth differ only in the value of a Future Worth calculation is at the end of the assigned time line and the value of Present Worth is at the beginning of the time line.

**Annuity** – A series of uniform amounts of money occurring over equal periods of time. An example would be: Equal annual withdrawals of money from a bank account.

We have to begin somewhere to identify factors needed to properly account for time and interest, so let's start with the six basic cash flow translations of money over time. The six basic cash flow translations are as follows:

- The Present Worth (P) of a Future Amount (F)

$$(P/F, i\%, N) = \frac{1}{(1 + i)^N}$$

- The Future Worth (F) of a Present Amount (P)

$$(F/P, i\%, N) = (1 + i)^N$$

- An Annuity (A) from a Present Amount (P)

$$(A/P, i\%, N) = \frac{i(1 + i)^N}{(1 + i)^N - 1}$$

- An Annuity (A) for a Future Amount (F)

$$(A/F, i\%, N) = \frac{i}{(1 + i)^N - 1}$$

- The Present Worth (P) of an Annuity (A)

$$(P/A, i\%, N) = \frac{(1 + i)^N - 1}{i(1 + i)^N}$$

- The Future Worth (F) of an Annuity (A)

$$(F/A, i\%, N) = \frac{(1 + i)^N - 1}{i}$$

The resulting factor, derived from these calculations is then multiplied by a dollar value at a single point in time. If you calculate all cash flows for different business alternatives, and they are expressed as if each cash flow for each alternative occurred at the same point in time, a business decision can be made by comparing the total of the cash flow values for each alternative.

OK, now before your eyes glaze over and I lose you, let's look at how these factors can be used in simple calculations, and what they provide as results. So to bring everything into focus, here is an example for each of the six basic translations:

- The Present Worth (P) of a Future Amount (F)

Cash flow: The Present Worth of a \$5,000 asset 10 years in the future where the cost of money is 7%.

$$(P/F, i\%, N) = \frac{1}{(1 + .07)^{10}}$$

$$P/F = .5083$$

$$\text{Present Worth} = .5083 \times \$5,000 = \$2,541.50$$

- The Future Worth (F) of a Present Amount (P)

Cash flow: The Future Worth of \$5,000 in 10 years where the cost of money is 7%.

$$(F/P, i\%, N) = (1 + .07)^{10}$$

$$F/P = 1.9671$$

$$\text{Future Worth} = 1.9671 \times \$5,000 = \$9,835.76$$

- An Annuity (A) from a Present Amount (P)

Cash Flow: Annuity payments of equal amounts necessary to reduce \$5,000 to 0 in 10 years while earning 7% interest

$$(A/P, i\%, N) = \frac{.07(1 + .07)^{10}}{(1 + .07)^{10} - 1}$$

$$A/P = .4124$$

$$\text{Annuity Amount} = .4124 \times \$5,000 = \$712 / \text{year}$$

- An Annuity (A) for a Future Amount (F)

Cash Flow: The Annuity payments of equal amounts for 10 years while earning 7% interest for a Future Amount of \$9,835.76

$$(A/F, i\%, N) = \frac{.07}{(1 + .07)^{10} - 1}$$

A/F = .0724

Annuity Payment for Future Amount  
 = .0724 X \$9,835.76 = \$711.89

- The Present Worth (P) of an Annuity (A)

Cash Flow: The Present Worth of Annuity payments of equal amounts for payments of \$712 for 10 years while earning 7% interest.

$$(P/A, i\%, N) = \frac{(1 + .07)^{10} - 1}{.07(1 + .07)^{10}}$$

P/A = 7.0236

Present Worth of Annuity = 7.0236 X \$712 = \$5,000.79

- The Future Worth (F) of an Annuity (A)

Cash Flow: The Future Worth of Annuity payments of equal amounts for payments of \$712 for 10 years while earning 7% interest.

$$(F/A, i\%, N) = \frac{(1 + .07)^{10} - 1}{.07}$$

F/A = 13.816

Future Worth of Annuity = 13.816 X \$712 = \$9,837.31

As comparisons between the six results are made the difference in values that are close are due to rounding errors. Good financial calculators and software with increased accuracy easily minimize these errors.

The translation factors, cash flow diagrams, definitions and calculations given in this article are but the basic building blocks of cash flow study and time value of money. Once these basic concepts are understood, simple to moderate cash flow studies can be built to assist in financial decision making. Realizing there are a lot of software packages that manage this information quite nicely I can only reflect back to a university professor that always reminded his students. "Basic understanding of calculations and their expected results gives a user a better chance to identify miss entered and miss applied inputs when using automated systems."

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## Building Envelope Construction, Protection and Restoration Workshop

Scheduled for September 14th Architects, Engineers, Specifiers, Contractors, Building Owners and Managers, and Building Code Officials are invited to attend the "Building Envelope Construction, Protection, and Restoration" workshop on Wednesday, September 14, 2005. The workshop will be held at NIU Naperville, 1120 E. Diehl Road, Naperville and is sponsored by AIA Northeast Illinois.

The program includes 1¼ hour presentations on the following topics:

- Concrete Restoration & Protection
- Construct, Protect and Restore Commercial Roofs

- Specifying, Cleaning, and Protecting of Masonry and Concrete
- Sealants & Adhesives for Construction

Registration and a continental breakfast begin at 8:30 a.m. The workshop is 9:00 a.m. to 3:15 p.m. and includes lunch.

**Cost**

AIA Members:

By August 29, 2005 - \$60

After August 29, 2005 - \$80

Non-AIA Members:

By August 29 - \$100

After August 29 - \$120

To register or for additional information visit [www.aianei.com](http://www.aianei.com) or call 630-527-8550.

## Mark your FM Calendars

### Mark Your FM Calendar

note: the following information is provided solely as a convenient listing for IFMA/NI members. Further details may be learned by contacting each group as listed below.

### September 9, 16, 23, 30

Facilities Planning and Project Management  
Schaumburg, IL  
BOMA/Suburban Chicago  
(847) 995-0970

### September 18-21

ARMA 2005  
Navy Pier  
Chicago, IL  
Association of Records Managers and Administrators  
www.arma.org

### September 19-23

Testing, Adjusting and Balancing HVAC  
The University of Wisconsin Madison  
The Pyle Center  
College of Engineering-Department of Engineering Professional development  
(800) 462-0876  
http://epd.engr.wisc.edu/webG508

### September 22-23

Successful Strategies for Winning Real Estate Negotiations  
Gleacher Center (U of C)  
Chicago, IL  
Center for Real Estate/University of Wisconsin-Madison School of Business  
www.bus.wisc.edu/wcre

### September 26-27

Boiler Operation Maintenance & Safety  
Joliet, IL  
American Trainco  
(877)97TRAIN  
www.americantrainco.com

### September 26-27

Understanding Air Conditioning & Refrigeration Systems  
Elk Grove, IL  
American Trainco  
(877)97TRAIN  
www.americantrainco.com

### September 28-29

Understanding Air Conditioning & Refrigeration Systems  
Joliet, IL  
American Trainco  
(877)97TRAIN  
www.americantrainco.com

### September 28-29

Boiler Operation Maintenance & Safety  
Elk Grove, IL  
American Trainco  
(877)97TRAIN  
www.americantrainco.com

### September 29-30

Real Estate Investment & Feasibility Analysis  
Gleacher Center (U of C)  
Chicago, IL  
Center for Real Estate/University of Wisconsin-Madison School of Business  
www.bus.wisc.edu/wcre

### October 3-4

Basic Electricity for the Non-Electrician

### Elk Grove, IL

American Trainco  
(877)97TRAIN  
www.americantrainco.com

### October 4-6

Metalcon International  
Donald E. Stephens Convention Center  
Rosemont, IL  
Metal Construction Association  
(800) 537-7765  
www.metalcon.com

### October 5-6

Electrical Troubleshooting & Preventive Maintenance  
Elk Grove, IL  
American Trainco  
(877)97TRAIN  
www.americantrainco.com

### October 8, 15, 22, 29 November 5, 12, 19

Design, Operation and Maintenance of Buildings Systems Part II  
Schaumburg, IL  
BOMA/Suburban Chicago  
(847) 995-0970

### October 11-12

Basic Electricity for the Non-Electrician  
Joliet, IL  
American Trainco  
(877)97TRAIN  
www.americantrainco.com

### October 13-14

Electrical Troubleshooting & Preventive Maintenance  
Joliet, IL  
American Trainco  
(877)97TRAIN  
www.americantrainco.com

### October 14

OSHA Compliance 2005  
Schaumburg Golf Club  
Schaumburg, IL  
Human Resources Council  
(800) 601-4636

### October 18-21

ISSA InterClean  
Las Vegas Convention Center  
Las Vegas, NV  
www.issa.com/show

## Mark your FM Calendar (Cont)

### October 19

Emergency Evacuation Workshop  
**Chicago Marriott Schaumburg**  
 Schaumburg, IL 60173  
 NFPA/US Dept of Homeland Security  
 (800) 344-3555  
[www.nfpalearn.org](http://www.nfpalearn.org)

### October 20

DOT Hazardous Materials Training  
 Wyndham O'Hare  
 Chicago, IL  
 Environmental Resource Center  
[www.ercweb.com](http://www.ercweb.com)

### October 20-21

Portfolio Management  
 Gleacher Center (U of C)  
 Chicago, IL  
 Center for Real Estate/University of Wisconsin-  
 Madison School of Business  
[www.bus.wisc.edu/wcre](http://www.bus.wisc.edu/wcre)

### October 23-25

"Commemorating 25 Years of FM Excellence"  
 World Workplace 2005 Conference & Expo  
 Pennsylvania Convention Center  
 Philadelphia, PA  
[www.ifma.org](http://www.ifma.org)

### October 24-25

Academic Science Buildings 2005  
 St. Petersburg, FL  
**Fast Forward Facilities 05**  
 Tradeline Inc.  
 (925) 254-1744 x 12  
[www.tradeline.com](http://www.tradeline.com)

### November 2-4

Fundamentals of Buying & Selling Energy  
 Omni Ambassador East  
 Chicago, IL  
 The Association of Energy Engineers  
 (770) 925-9633  
[www.aeecenter.org](http://www.aeecenter.org)

### November 8

Construction Law from Contract to Closeout in Illinois  
 Hilton Garden Inn  
 Hoffman Estates, IL  
 Lorman Education Services  
 (866) 352-9539  
[www.lorman.com](http://www.lorman.com)

### November 17-18

Animal Research Facilities 2005  
 San Antonio, TX  
 Fast Forward Facilities 05  
 Tradeline Inc.  
 (925) 254-1744 x 12  
[www.tradeline.com](http://www.tradeline.com)

## NI CALENDAR

### **August 26**

Early Bird (save \$200) Registration ends  
 World Workplace 2005

### **August 27**

Registration (save \$100) begins  
 World Workplace 2005

### **September 6**

NI Monthly General Meeting  
 Aspire  
 Hillside, IL

### **September 16**

Last day for full refund  
 cancellations for World Workplace 2005

### **September 29-30**

IFMA/NI 17<sup>th</sup> Annual Educational Seminar  
 OfficeMax  
 Itasca, IL  
[www.ifmani.com/educational\\_seminar.htm](http://www.ifmani.com/educational_seminar.htm)

### **October 4**

NI Monthly General Meeting  
 Kellogg  
 Elmhurst, IL

### **October 7**

Last day for 50% refund  
 cancellations for World Workplace 2005

### **October 23-25**

World Workplace 2005 Conference and Expo  
 Pennsylvania Convention Center  
 Philadelphia, PA

### **October 24**

IFMAN/NI  
 World Workplace 2005 Networking Event  
 Location tba  
 Philadelphia, PA

### **November 1**

NI Monthly General Meeting

### **Thursday, December 8**

Annual IFMA/NI Holiday Party