



# SUNCOAST BRANCH



## Chairman's Address

**APWA SUNCOAST  
BRANCH  
BREAKFAST  
MEETING  
January 28th**

**7:30 a.m.**

**Dutch Heritage  
3713 Bahia Vista St.**

**Cost: \$8.00/person**



### TIME MANAGEMENT: TIPS TO REDUCE STRESS AND IMPROVE PRODUCTIVITY:

**Effective time management is a primary means to a less stressful life. These practices can help you reduce your stress and reclaim your personal life.**

Do you find yourself overwhelmed by the number and complexity of projects you have that need to be completed at work each day? Do you often feel the day flies by without your devoting the necessary attention to each assignment because other tasks keep landing on your desk, co-workers interrupt you with questions, or you can't get it all organized?

You probably know that effective time management will help you get more done each day. It has important health benefits, too. By managing your time more wisely, you can minimize stress and improve your quality of life.

But how do you get back on track when organizational skills don't come naturally? To get started, choose one of these strategies, try it for two to four weeks and see if it helps. If it does, consider adding another one. If not, try a different one.

**Plan each day.** Planning your day can help you accomplish more and feel more in control of your life. Write a to-do list, putting the most important tasks at the top. Keep a schedule of your daily activities to minimize conflicts and last-minute rushes.

**Prioritize your tasks.** Time-consuming but relatively unimportant tasks can consume a lot of your day. Prioritizing tasks will ensure that you spend your time and energy on those that are truly important to you.

**Say no to nonessential tasks.** Consider your goals and schedule before agreeing to take on additional work.

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**Delegate.** Take a look at your to-do list and consider what you can pass on to someone else.

**Take the time you need to do a quality job.** Doing work right the first time may take more time upfront, but errors usually result in time spent making corrections, which takes more time overall.

(continued on page 2)

## Chairman's Address

(continued from page 1)

**Break large, time-consuming tasks into smaller tasks.** Work on them a few minutes at a time until you get them all done.

**Practice the 10-minute rule.** Work on a dreaded task for 10 minutes each day. Once you get started, you may find you can finish it.

**Evaluate how you're spending your time.** Keep a diary of everything you do for three days to determine how you're spending your time. Look for time that can be used more wisely. For example, could you take a bus or train to work and use the commute to catch up on reading? If so, you could free up some time to exercise or spend with family or friends.

**Limit distractions.** Block out time on your calendar for big projects. During that time, close your door and turn off your phone, pager and e-mail.

**Get plenty of sleep, have a healthy diet and exercise regularly.** A healthy lifestyle can improve your focus and concentration, which will help improve your efficiency so that you can complete your work in less time.

**Take a time management course.** If your employer offers continuing education, take a time management class. If your workplace doesn't have one, find out if a local community college, university or community education program does.

**Take a break when needed.** Too much stress can derail your attempts at getting organized. When you need a break, take one. Take a walk. Do some quick stretches at your workstation. Take a day of vacation to rest and re-energize.

**Ask for professional help.** If you're too frazzled to think about trying any of these tips, it's time to ask for help. Does your life feel totally out of control? If so, contact your employee assistance program (EAP) at your workplace for assistance, or discuss your situation with your doctor.

Gary Spraggins

## This Month's Speaker

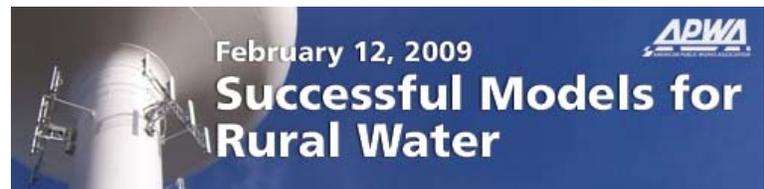


**Brad Miller**  
Chaz Equipment Company, Inc.

The Speaker this month will be Brad Miller of Chaz Equipment Company, Inc. He will be speaking on sewer and catch basin rehabilitations.



**Click, Listen & Learn**  
Register Online!



**Title:** Successful Models for Rural Water  
**Date(s):** February 12, 2009  
**Schedule:** 8:00a - 10:00a Pacific      10:00a - 12:00p Central  
 9:00a - 11:00a Mountain      11:00a - 1:00p Eastern  
**Location:** Audio/Web Broadcast  
**Cost:** Members: \$150.00 per site  
 Non Members: \$200.00 per site  
**Register By:** Wednesday, February 11, 2009  
 After this date, contact Carrie Merker (800) 848-2792 / [education@apwa.net](mailto:education@apwa.net)



**Title:** Reinvesting in America's Transportation System  
**Date(s):** February 19, 2009  
**Schedule:** 8:00a - 9:30a Pacific      10:00a - 11:30a Central  
 9:00a - 10:30a Mountain      11:00a - 12:30p Eastern  
**Location:** Audio/Web Broadcast  
**Cost:** Members: \$0.00 (FREE to APWA members)  
 (1st-come, 1st-served)  
 Non Members: \$200.00  
**Register By:** Tuesday, February 17, 2009  
 After this date, contact Carrie Merker (800) 848-2792 / [education@apwa.net](mailto:education@apwa.net)

20th Annual

# Toothpick Bridge Building Contest

Win Prizes!!

2009



Contest open to all Middle and High School Students  
in Manatee and Sarasota Counties.

**THIS YEAR FOR THE FIRST TIME:**

**Teacher Created Bridge Competition with PRIZES!!**

**Contest Judging**

Saturday, February 21st  
10 AM to 4 PM

**Award Ceremony**

Tuesday, March 10th  
6 PM to 8 PM

Events located at G.WIZ, The Hands on Science Museum  
G.WIZ is located at 1001 Boulevard of the Arts  
Gwiz.org



### SPONSORS NEEDED:

Contact Adnan Javed  
941-861-0599

Or

ajaved@scgov.net

Shirts for all  
Participants!!

### **Volunteers Needed!**

Please Contact Chris Sharek, P.E. — Phone: 941-378-0272  
Or RCSharek@pbsj.com

Student Release Form

INSTRUCTIONS: Parent/Guardian must read & complete.

I, THE UNDERSIGNED, AM THE PARENT/GUARDIAN OF:

I HEREBY AUTHORIZE THE MEMBERS OF THE TOOTHPICK BRIDGE BUILDING COMMITTEE, A SPECIAL PROJECT OF G.WIZ, THE HANDS-ON SCIENCE MUSEUM, THE SOCIETY OF MANUFACTURING ENGINEERS, THE FLORIDA ENGINEERING SOCIETY, THE AMERICAN SOCIETY OF CIVIL ENGINEERS AND THE AMERICAN PUBLIC WORKS ASSOCIATION, SARASOTA AND MANATEE COUNTIES, FLORIDA TO:

- 3. PREPARE SLIDE PRESENTATIONS, PHOTOGRAPHY, VIDEO TAPES, AUDIO TAPES AND MOVIE FILMS IN WHICH MY CHILD WILL SPEAK AND/OR APPEAR FOR THE EVENT OF THE CONTEST OR AWARDS DINNER.
- 4. USE, RE-USE, PUBLISH AND REPUBLISH THE SAME IN WHOLE OR IN PART, INDIVIDUALLY OR IN CONJUNCTION WITH OTHER PHOTOGRAPHS, VIDEO OR FILM IN ANY MEDIUM AND/OR ANY PURPOSE WHATSOEVER, INCLUDING (BUT NOT BE WAY OF LIMITATION) ILLUSTRATION, PROMOTION AND ADVERTISING BY THE TOOTHPICK BRIDGE BUILDING COMMITTEE.

I HEREBY WAIVE ANY MONETARY RIGHTS OR OTHER RIGHTS THAT I MAY HAVE TO INSPECT AND/OR TO APPROVE THE FINISHED PRODUCT OR THE ADVERTISING COPY THAT MAY BE USED IN CONNECTION THEREWITH OR THE USE TO WHICH IT MAY BE APPLIED. I UNDERSTAND AND AGREE THAT ALL RIGHTS, ROYALTIES AND MATERIALS WILL BELONG TO THE TOOTHPICK BRIDGE BUILDING COMMITTEE.

PARENT/GUARDIAN NAME (PRINTED)

PARENT/GUARDIAN SIGNATURE:

DATE: \_\_\_\_\_ PHONE #: \_\_\_\_\_

# 20th Annual Toothpick 2009

## Bridge Building

### Student/Teacher Workshop

Presented by Tim Fouchee of Ayres Associates

**Saturday, January 10, 2009**

In Recognition of National Engineer's Week  
February 15<sup>th</sup>-21<sup>st</sup>

Contest open to all Elementary, Middle and High School  
Students in Manatee and Sarasota Counties.

**Bridge Building  
Workshop  
January 10, 2009  
11:00 am**

**Contest Judging  
February 21, 2009  
10:00 - 4:00 pm**

Events located at G.WIZ - The Science Museum  
1001 Boulevard of the Arts Sarasota, FL 34236  
Gwiz.org

Sponsored locally by:  
Society of Manufacturing Engineers (SME)  
American Society of Civil Engineers  
Florida Engineering Society  
American Public Works Association



**Win Prizes!!**

**TOOTHPICK BRIDGE BUILDING CONTEST**

**Entry Form**

Individual  Team

Student Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ FL Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_

School: \_\_\_\_\_ Grade: \_\_\_\_\_

Teacher: \_\_\_\_\_

Email: \_\_\_\_\_

**Team Member Information**

Student Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_, FL Zip: \_\_\_\_\_

Telephone: \_\_\_\_\_

School: \_\_\_\_\_ Grade: \_\_\_\_\_

Teacher: \_\_\_\_\_

Email: \_\_\_\_\_

**Judges' Decisions Are Final!**

Student's Signature Required: \_\_\_\_\_

Student's Signature Required: \_\_\_\_\_

**Student Release Form**

**INSTRUCTIONS: Parent/Guardian must read & complete.**

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\_\_\_\_\_

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PARENT/GUARDIAN NAME (PRINTED)

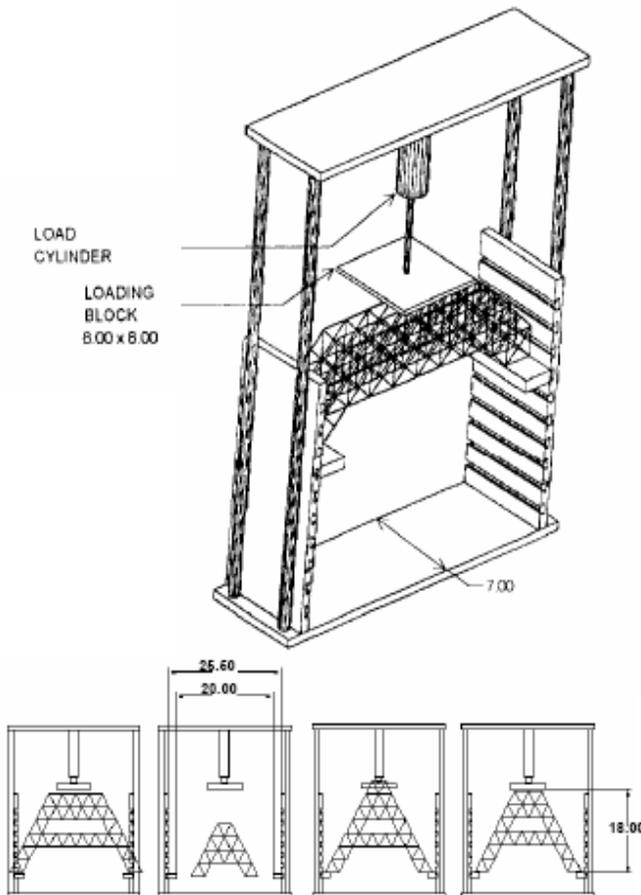
\_\_\_\_\_

PARENT/GUARDIAN SIGNATURE:

\_\_\_\_\_

DATE: \_\_\_\_\_ PHONE #: \_\_\_\_\_

# The Crusher!



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## TOOTHPICK BRIDGE BUILDING CONTEST RULES

To all Toothpick Bridge Building Contest Entrants: PLEASE read all instructions before starting construction of your bridge. This will help you avoid any cause for disqualification.

### GENERAL:

1. Each student can enter only one Bridge for this school year. You may CRUSH more than one bridge. However, you must choose one Bridge as the official entry before CRUSHING.
2. Bridge construction and materials must conform to the rules of this contest.

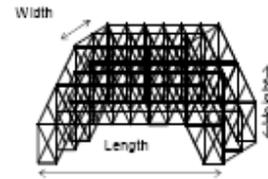
**MATERIALS:** The materials you will need are available at your local super market, hardware or discount store.

1. Only standard length round, square, or flat wood toothpicks are acceptable for use in the construction of your Bridge. You will need about two (2) 250 count boxes.
2. The only glues approved for use are regular "Carpenter's Wood Glue" (NO POLYMER GLUES ALLOWED) and "Toothpick Bridge Building Glue". One small bottle will do. The use of contact cement, rubber cement, super glue, multi-part mix, hot melt, or any other adhesive is cause for disqualification. We suggest you bring the used container of glue to the contest site in case a question should arise.
3. Toothpicks used must be in their purchased condition. You may not modify toothpicks used in the construction of your Bridge. Cutting, slicing, notching, drilling, fraying or other alterations will result in disqualification.
4. Do not paint, coat, spray, or dip any part of your bridge with any substance. Glue only where toothpicks touch or where one toothpick crosses another. Complete glue coverage of even one toothpick is cause for disqualification.

**REMEMBER, EXCESS GLUE ADDS EXTRA WEIGHT.**

**CONSTRUCTION:** it is not a requirement that the Bridge be constructed with a roadway, but no part of the bridge can extend above the bottom of the load plate.

1. Bridge weight shall not exceed 125 grams (4.4 ounces).
2. Bridge dimensions must meet the following requirements.
3. Height: Must be no more than 45.5 cm (18.0 in.) high
4. Width: Must be no more than 18.0 cm (7.0 in.) wide
5. Length: Must be between 51.0 cm (20.0 in.) and 64.5 cm (25.5 in.) long
6. UNSTABLE Bridge Structures will result in disqualification. Bridge must stand by itself.
7. Bridge must be constructed to allow a 20.5 cm x 20.5 cm square LOADING PLATE to rest on the top center section of the Bridge. This plate weighs 2.25 kg. (5 lbs).



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**TESTING AND JUDGING**  
**(Decisions of the Judges are Final)**

- A. Student will register with the Bridge Building Judges upon arrival.
- B. Judges will weigh and measure each Entrant's Bridge to ensure that the Bridge meets the requirements of Rules #1 and #2.
- C. Judges will examine each Entrant's Bridge for conformance to Rules #3, #4, #5, #6, and #7.
- D. Each qualifying Bridge and the Entrant are photographed before Bridge testing, since this is the last time the structure will be in one piece. The Entrant will receive the photo as a gift following the event.
- E. At the request of an Official, each Entrant will bring their bridge to the tester for **LOADING and CRUSHING**.
- F. An Official will load the Bridge into "THE CRUSHER". The Load Block is lowered onto the bridge and applies an initial weight to the Bridge.  
*Your bridge must hold this 2.25 kg (5 lbs.) weight for testing to continue.*  
 The Official slowly increases air pressure to the load cylinder of "THE CRUSHER", increasing the load on the Bridge. This process continues until failure occurs. The Official records the air pressure at failure.  
**NOTE: Definition of Failure:** The point at which the structure can no longer support additional load.
- G. After crushing, an Official calculates the Force on the Bridge, using the air pressure reading recorded at failure.
- H. The **STRUCTURE RATIO** is then calculated by dividing the Force, calculated in 'G' above, by the weight of the Bridge. This value establishes the relative strength of each Bridge and the contest winners. To put it simply, the Bridge that can hold the most weight and weigh the least, will be the best.

**EXAMPLE:**

Bridge #1 weighs 96 grams and holds a 9870 grams weight (21.8 lbs.)

$$\text{Structure ratio} = 9870/96 = 102.8 \text{ (102.8 times its own weight)}$$

Bridge #2 weighs 85 grams and holds 9000 grams (19.8 pounds)

$$\text{Structure ratio} = 9000/85 = 105.9 \text{ Ratio (105.9 times its own weight)}$$

As one can see, although Bridge #2 held less weight, it had a higher "STRUCTURE RATIO". Bridge #2 was a better design because its builder used less material in its construction and it attained a higher "Structure Ratio".

**TOOTHPICK ENGINEERING**

**GLUING TOOTHPICKS:**

This is the most difficult part of Bridge construction. The glue takes time to set. An excellent way to begin is to lay toothpicks on waxed paper and glue them together into triangles. When the glue has set, prop other toothpicks into the position you want. Then glue these toothpicks to the original triangle. When the glue dries, it will shrink. Where you have used too much glue, (it is difficult to use just the right amount) you will find the excess forms a mass. Removal of this mass, by cutting it away, is allowed. **DO NOT CUT TOOTHPICKS.** Refer to Contest Rule #5.

It is best to wait until the next day to test your substructures. Waiting will insure the glue is completely dry. You will find toothpicks are extremely strong when used carefully. Construction of a Bridge you can **STAND ON** is possible.



**CONSTRUCTION:**

One of the methods you can use to build your Bridge is to construct triangles, as shown in Figure 1. Figure 1 shows the construction of a tetrahedron (a polyhedron with four sides). Begin by constructing a triangle by gluing three toothpicks together. Then build a pyramid of toothpicks from each of the triangle's corners. You will find that this is a very rigid and very strong structure. If you continue to use this method, you will get the maximum strength from the toothpicks. When you depart from the use of triangles to construct a square, it may not be as stable as a triangle. When this happens, you can glue toothpicks across the corners of the square to strengthen it, as shown in Figure 2. (It is not a requirement to use triangles.)

