



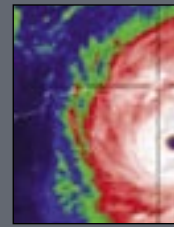
Reaching New Depths: The South Carolina Chapter of the PDCA

page 8



The Pile Driver's Legal Corner – Collecting Your Money or, Why Some Contractors Work for Free

page 17



When the Levee Breaks: Rebuilding New Orleans

page 32

PILED RIVER

THE OFFICIAL PUBLICATION OF THE PILE DRIVING CONTRACTORS ASSOCIATION | Q2 2006 VOL. 12, NO. 1

Project Spotlight: Charleroi Locks and Dam Project, Charleroi, Pennsylvania

PRSTD STD
US POSTAGE PAID
FARGO ND
PERMIT #1080

Berminghammer the clean hammer.

Easy-start
Free-standing
Hydraulic Trip
Low Emissions
Ground Fueling
Remote Throttle
Sheet Pile Adapter
Impact Energy Monitor

see www.berminghammer.com for details

1 800 668-9432





PILE DRIVING CONTRACTORS ASSOCIATION
 P.O. Box 66208
 Orange Park, FL 32065
 Tel: (904) 215-4771
 Toll Free: (888) 311-PDCA (7322)
 F: (904) 264-9531
 www.piledrivers.org
 Email: execdir@piledrivers.org

Published by:
 Lester Publications, LLC
 2131 NW 40th Terrace - Suite A
 Gainesville, FL 32605
 Main Line (877) 387-2700

President
 Jeff Lester | (866) 953-2189

Managing Editor
 Amber Billman | (877) 387-2700

Art Director
 Vince Saseniuk | (866) 890-8756

Graphic Designer
 Kevin Forde | (877) 953-2587
 Kyungmi Jin | (877) 953-2189

Advertising Representatives
 Heather Campbell, Sean Davis,
 Shannon Evans, Louise Peterson,
 Michelle Raike, Jennifer Shurvell

© 2006 Lester Publications, LLC. All rights reserved. The contents of this publication may not be reproduced by any means, in whole or in part, without the prior written consent of the publisher.

Visit the PDCA Web site at www.piledrivers.org.

For reprint information, contact
 Amber Billman, editor, at (877) 387-2700.
 For a media kit, visit www.piledrivers.org.

Piledriver is published quarterly.
 Please contact us by mail at
 P.O. Box 66208, Orange Park, FL 32065
 Phone: 904-215-4771 | Fax: 904-264-9531
 or by E-mail at membership@piledrivers.org.

Statements of fact and opinion are the responsibility of the authors alone and do not imply an opinion on the part of the officers or members of the Pile Driving Contractors Association. All rights reserved. Materials may not be reproduced or translated without written permission. Direct requests for reprint permission should be made to the Executive Director of the Pile Driving Contractors Association.

Printed in Canada
 Please recycle where facilities exist.

PILEDRIVER

THE OFFICIAL PUBLICATION OF THE PILE DRIVING CONTRACTORS ASSOCIATION | Q2 2006 VOL. 3, NO. 1

Contents

Letter from the President
 By Harry Robbins 2

Letter from the Executive Director
 By Stevan Hall 4

2006 Board of Directors and Committee Chairmen 6

Reaching New Depths: The South Carolina Chapter of the PDCA 8

Project Spotlight: Charleroi Locks and Dam Project, Charleroi, Pennsylvania 11

Pile Tips – WPC Wins 2006 ACEC-GA Engineering Excellence Awards Competition 15

The Pile Driver’s Legal Corner 17

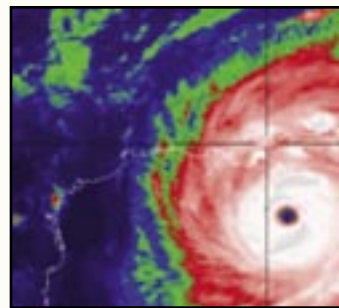
When the Levee Breaks: Rebuilding New Orleans 24

2006 PDCA 10th Anniversary Annual Conference Wrap-Up March 2-4, 2006-San Antonio, TX 32

New Member List 40

Calendar of Events 43

Advertiser Index 44



On the Cover:
 Project Spotlight: Charleroi Locks and Dam Project, Charleroi, Pennsylvania

Editor’s Note:

We would like to acknowledge Steve Borg of the NYSDOT as the author of “Large Diameter Cast-in-Place Concrete Piles – Whitestone Expressway Project” on page 40 of last Fall’s (Q3) issue of *Piledriver*.



PDCA Wants to Help You to Help Yourself

By Harry Robbins, PDCA President

PDCA works for all of us in the pile driving industry. PDCA committees actively work to make our industry better. These committees are:

- Communications Committee, chaired by Van Hogan, is charged with putting out *Piledriver* magazine and maintaining the Web site.
- The Finance Committee is chaired by Trey Ford with the responsibility for budget, cash flow, and all financial oversight.
- Education Committee chairman is Mike Elliott. This committee is responsible for organizing our two premier events of the year – the Annual Meeting and Conference and the Design and Installation of Cost Efficient Piles (DICEP) seminar.
- Environmental Committee led by John Linscott addresses environmental issues related to pile driving.
- Market Development Committee chairman Michael Engstrom and his committee work hard to

develop ways to promote driven piles.

- Technical Committee, chaired by Dale Biggers, is very well-connected in the engineering world. These folks provide input on behalf of the pile driving industry to specification writers everywhere. They do a fantastic job of representing our industry. They have recently completed a thorough review of the AASHTO pile specification. Next, they are fine-tuning the specification for private industry use.

driving contractors is an effective tool. This is true on the national level. But, it is also true on the local level as proven by PDCA of South Carolina. You know what needs to be done in your area. PDCA can help you to start a local chapter. All it takes is a small core group of pile driving contractors with a passion for their industry.

Our newest committee is the Membership Development Committee chaired by Rory Kelly. The strength and effectiveness of our association depends upon involved members. My theme for this year is "Growth through Local Chapters." Rory is committed to facilitate the establishment of local chapters. I know from personal experience that

These fine folks are helping you and me and they are also helping themselves by having a positive impact on their chosen profession.

In my position as PDCA president, I see first-hand the hard work and dedication to our industry by all of our committee members. I am humbled by the realization that all of these individuals are volunteers. These fine folks are helping you and me and they are also helping themselves by having a positive impact on their chosen profession.

So, how can PDCA help you to help yourself? Working together under the PDCA banner with fellow pile

driving contractors at the local level is a wise investment of time and energy. I am absolutely convinced that the success of PDCA of SC can be realized in other parts of the country. Again, all it takes is a small core group of pile driving contractors with a passion for their industry.

Contact Steve Hall, PDCA Executive Director, to get the ball rolling. Let PDCA help you to help yourself. Until next time, remember *driven piles are tested piles* ▼

Pile Driving Equipment & Solutions For All Of Your Foundation Needs



Pileco, Inc.
P.O. Box 16099, Houston, TX 77222

Toll Free: 1-800-474-5326
Phone: 713-691-3000
Fax: 713-691-0089
e-mail: pileco@pileco.com
web: www.pileco.com

- **Pileco Diesel Hammers**
- **IHC- Hydrohammers**
- **Vibratory Hammers**
- **Lead Systems & Accessories**



Sales * Rental * Service * Parts * Technical Support



Leadership is the Key to Success

By Stevan Hall, PDCA Executive Director

In the months leading up to the 2006 PDCA 10th Anniversary Annual Conference in San Antonio, Texas, during the Annual Conference and my subsequent trip to PDCA of South Carolina, in Charleston, I was consistently impressed by the level of commitment, dedication, support and the positive attitude shown by the Executive Committee, Board of Directors, Committee Chairs and Committee Members and the Members themselves. Equally as important, I am convinced that your continued enthusiasm and participation will be the catalyst that advances this association into prominence as an internationally recognized authority and resource for the driven pile industry.

It all starts with leadership and I can tell you that Harry Robbins is a leader. He is a man of great vision, character, and integrity; and Harry has already immersed himself in his responsibilities as your President and is dedicated to performing his role with a passionate commitment towards excellence. Harry has a big job ahead of him, but a job he cannot accomplish by himself. He has the full support of his fellow Board members, but he also needs your support, your input, and your participation to make him the effective leader I know he can be, I know he wants to be, and you want him to be.

Leadership within the PDCA is seen on many fronts. I want to thank Mark Weisz (C. S. Marine Constructors) for his leadership as the 2005 Education Committee Chair and the remarkable job his committee did in planning the 2006 PDCA

10th Anniversary Annual Conference. I look forward to working with Mike Elliott (Pile Equipment, Inc.), 2006 Education Committee Chair and his committee members in developing the DICEP seminar in September 2006 and the 11th Annual PDCA Conference in 2007.

During the Annual Conference, the Board of Directors approved and implemented a new committee – Membership Development. Rory Kelly (Skyline Steel) is the new Chair. I told Rory that stepping up to the plate isn't always easy, but shows great character and a commitment that sets the bar for others to follow. I am confident that Rory will do a great job in this important role. Rory's committee currently consist of the entire Board of Directors – for who better to acknowledge the importance of membership growth and be committed to its success than those who are responsible for the fiscal management of your association. Each Board member is committed to recruiting two new members in 2006. If they succeed, the PDCA will grow its Contractor or Associate membership by 20 – not including unsolicited memberships. If each PDCA member would commit to the same obligation, we would grow the membership by 600 making PDCA an organization of just under 1,000 members. As a PDCA member, your commitment to recruiting two new members will make a significant difference in the annual and long-term success of your association. Imagine the strength and influence your association would have with a 1,000 members, not to mention the

additional service and benefits PDCA could provide its members with that kind of revenue stream.

PDCA must acknowledge the significant and remarkable work the PDCA Technical Committee did on preparing revisions to AASHTO LRFD Bridge Installation Specifications, Section 4: Driven Foundation Piles. Technical Committee Chairman, Dale Biggers (BOH Brothers Construction) and his committee members are to be commended for producing a standard that will not only provide the specifications for driven foundation pile for years to come, but also significantly validated PDCA credibility with AASHTO, FHWA and other public agencies as an organization that can produce extraordinary results for the benefit of this industry. The Technical Committee is now undertaking the responsibility of converting these specifications into a Private Installation Spec for non-public owners, engineers, designers, and contractors to use.

Additional PDCA committees, such as the Market Development (Chair Michael Engestrom, Nucor-Yamato Steel), Environmental (Chair John Linscott, H.B. Fleming), Communications (Chair Van Hogan, Ed Waters and Sons Contracting Co, Inc.), and Finance (Chair Trey Ford, Ford Pile Foundations, Inc.) are all instrumental in moving the PDCA agenda forward by ensuring visibility, marketability, access to resource and technical information, and a greater market share for the driven pile industry. They are all to be congratulated on their efforts and

commitment to making the PDCA a better organization.

PDCA is grateful for the leadership and support of the Annual Conference sponsors, exhibitors, participants, and speakers. Collectively, you made the conference a tremendous success. PDCA has a link on our Web site, www.piledrivers.org with a conference wrap up, so please visit the site for more information. If you participated, I hope the experience was beneficial and enjoyable. For those who did not make the conference, I think you missed a great opportunity. And for everyone, I hope you will join us for your association's 2007 Annual Conference in Nashville, Tennessee.

Following the Annual Conference, I went to Charleston, South Carolina to visit with the PDCA of South Carolina Chapter Board and members. They are to be commended for their foresight, wisdom and commitment to bringing the issues of the pile driving industry to the chapter level. They are leading by example and have set the benchmark for others to follow – and I am sure others will follow. In fact, the PDCA is currently involved in the formation or potential formation of several new chapters across the United States.

Earlier I mentioned leadership and noted many who are currently serving in leadership capacities within the PDCA. I was extremely fortunate to have been in South Carolina when the PDCA chapter acknowledged two distinguished gentlemen who are well respected leaders in the South Carolina pile driving industry. Mr. Tommy Parker (Parker Marine) and Mr. Morris Fairley (Palmetto Pile Driving, Inc.) were both honored with the PDCA South Carolina Chapter Lifetime Achievement Award. This was not only an appropriate award, it was also necessary. There are many individuals and companies who have made this industry what it is today and if we fail to acknowledge them, we do an injustice to them and to our industry.

During the Annual Conference, I also had the privilege of meeting and playing a small role in presenting Mr. Charles "Chuck" C. Whiteaker, Skyline Steel (Ret.) with a token of the PDCA's appreciation for the significant role he

played in the initial formation of the association. We owe you our gratitude and heartfelt thanks for the selfless commitment you made to guarantee our success.

So to Chuck Whiteaker, Tommy Parker, and Morris Fairley, I say, "Congratulations!" You are the member-appointed dignitaries of the PDCA. We can all learn from your examples.

Finally, I want to paraphrase a quote by saying, "As association members, we need to learn to work together as brothers or perish together as fools!"

The PDCA is your association! You are its greatest asset and you hold its future in your hands. Don't wait to see if your fellow member found their two new members, don't wait for someone to ask you if you will serve on a committee and don't look for someone else to do your share of the work. There are plenty of opportunities for you to promote and serve your association, and in doing so; you ensure the success of your association and your industry. ▼



Behind Every IMT Drill Rig Are People Committed to Your Success.



With more top engineers, technicians and customer service personnel than ever, IMT's dedicated network of affiliated Cat® dealers and expanded product support team is ready to provide you with the most comprehensive service in the industry.

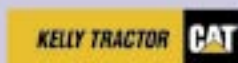
- Timely parts delivery and field repairs
- Assistance in setting up drills
- Expert answers on technical issues in the field
- Nationwide service network
- Training for operators on IMT drills
- Large rental fleet and related systems

Want drilling projects that are low on downtime and high on profits? Then discover the manufacturer that backs up their machines with something unique:

A team that never stops working to help you succeed.

www.kellytractor.com

Call us today. 561-683-2015 Ext. 179



2006 PDCA Board of Directors & Committee Chairmen

Harry Robbins

President

P: (843) 577-0545
F: (843) 577-0547
P.O. Box 70986
Charleston, SC 29415
harry@palmettopiledriving.com

Mark Weisz

Vice President

P: (707) 562-4100
F: (707) 562-4106
P.O. Box 2195
Vallejo, CA 94592
mark@csmarine.com

Van Hogan

Secretary

P: (904) 268-4419
F: (904) 260-9379
C: (904) 631-8309
6467 Greenland Road
Jacksonville, FL 32258
vhogan@edwatersandsons.com

Trey Ford

Treasurer

P: (757) 497-3593
F: (757) 497-0031
4985 Euclid Road
Virginia Beach, VA 23462
fordpile@earthlink.net

Randy Dietel

Immediate Past President

P: (409) 945-3459
F: (409) 945-4318
P.O. Box 1847
Texas City, TX 77592-1847
randy@pilinginc.com

Mike Elliott

Director

P: (904) 284-1779
F: (904) 284-2588
1058 Roland Ave.
Green Cove Springs, FL 32043
info@pile-eqp.net

Garland E. Likins, Jr.

Director

P: (216) 831-6131
F: (216) 831-0916
4535 Renaissance Parkway
Cleveland, OH 44128
garland@pile.com

John Linscott

Director

P: (207) 799-8514
F: (207) 799-8538
89 Pleasant Ave.
South Portland, ME 04106
john.linscott@hbfleming.com

Rory Kelly

Director

P: (703) 978-2500
F: (703) 978-2908
5610-B Sandy Lewis Dr.
Fairfax, VA 22032
rkelly@skylinesteel.com

John King

Director

P: (843) 763-7736
F: (843) 763-7974
4530 Hwy 162
Charleston, SC 29449
kingpiledrive@aol.com

Warren Waite

Director

P: (800) 474-5326
F: (713) 691-0089
P.O. Box 16099
Houston, TX 77222
wwaite@pileco.com

Stevan A. Hall

Executive Director

P: (888) 311-7322
F: (904) 264-9531
P.O. Box 66208
Orange Park, FL 32065
execdir@piledrivers.org

Communications Committee

Chairman: Van Hogan

P: (904) 268-4419
F: (904) 260-9379
C: (904) 631-8309
6467 Greenland Road
Jacksonville, FL 32258
communication@piledrivers.org

Communications Committee Members:

Garland Likins, Doug Scaggs, Steve Whitty

Finance Committee

Chairman: Trey Ford

P: (757) 497-3593
F: (757) 497-0031
4985 Euclid Road
Virginia Beach, VA 23462
finance@piledrivers.org

Finance Committee Members:

Wayne Waters, Harry Robbins,
Randy Dietel, Mark Weisz.

Education Committee

Chairman: Mike Elliott

P: (904) 284-1779
F: (904) 284-2588
1058 Roland Avenue
Green Cove Springs, FL 32043
education@piledrivers.org

Education Committee Members:

Charlie Ellis, Herb Engler, Jim Frazier,
George Goble, Van Hogan, Sandra Koslow
Garland Likins, John Linscott, Rusty Signor,
Gerald Verbeek.

Environmental Committee

Chairman: John Linscott

P: (207) 799-8514
F: (207) 799-8538
89 Pleasant Ave.
South Portland, ME 04106
environmental@piledrivers.org

Environment Committee Members:

Bud Abbott, Jim Bay, Chuck Blakeman,
Gordon Boutwell, Ed Hajduk,
Garland Likins, Mark Miller, Mark Svinkin,
Joe Savarese, Barry Roth, Warren Waite

Market Development Committee

Chairman: Michael F. Engstrom

P: (954) 384-4545
F: (954) 337-0831
772 Sand Creek Circle
Weston, FL 33327
marketdevelopment@piledrivers.org

Market Development Committee Members:

Dean Abbondanza, Stan Baucum,
Cliff Bengtson, Dave Harper, Rory Kelly,
Dean Matthews, Scott Whitaker,
Max Williams

Membership Development Committee

Chairman: Rory Kelly

P: (703) 978-2500
F: (703) 978-2908
5610-B Sandy Lewis Dr.
Fairfax, VA 22032
membership@piledrivers.org

Membership Committee Members:

Harry Robbins, Mark Weisz, Van Hogan,
Randy Dietel, Mike Elliott, Garland Likins,
John Linscott, John King and Warren Waite

Technical Committee

Chairman: Dale Biggers

P: (504) 821-2400
F: (504) 821-0714
P.O. Drawer 53266
New Orleans, LA 70153
technical@piledrivers.org

Technical Committee Members:

Dale Biggers, Dan Brown, Joe Caliendo,
Charlie Ellis, Jim Frazier, George Goble,
Van Komurka, Garland Likins, John Linscott,
James H. Long, Dean Matthews, Joe Phillips,
Scott Whitaker.

BLAKESLEE • ARPAIA • CHAPMAN, INC.
Engineered Construction Since 1844



*Bridges and Dams
 Utilities and Substation
 Foundations*

*Waterfront Structures
 Rigging and Millwrighting
 Underpinning & Shoring*

Blakeslee • Arpaia • Chapman, Inc.
 200 North Branford Road, Branford CT. 06443
 Phone: (203) 488-2500 Fax: (203) 488-4538
 Email: dchapman@bac-inc.com Web: www.bac-inc.com



- Inventory of line pipe in diameters ranging from 14" thru 72"
- With over 40,000 tons of large OD heavy wall pipe in inventory
- Grades API 5L Gr. B, X-42, X-52, X-56 and X-60
- Larger diameters ranging from 48"- 72" in grades ASTM A 36, API 2H Gr.50 and ASTM A 572 Gr. 50
- Capable of all fabrication to build piles

**Call Debbie Zanetti or Tom Hebert
 for more information at 1-800-833-7265**

LBT ENTERPRISES LTD.

Home of the Prime® Concrete Pile Cutter.

Efficient • Safe • Economical

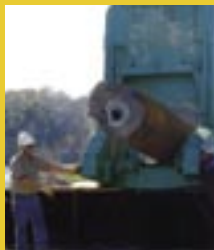
Available in 16", 24", 30" and 36" models.
48" PCPC MODEL COMING SOON.



PRIME® PILE CUTTER
 16" Cutter with
 2-Part Cradle



**PRIME® WATERJET
 ATTACHMENT**
 24" Cutter with Waterjet
 Attachment for cutting
 below mudline

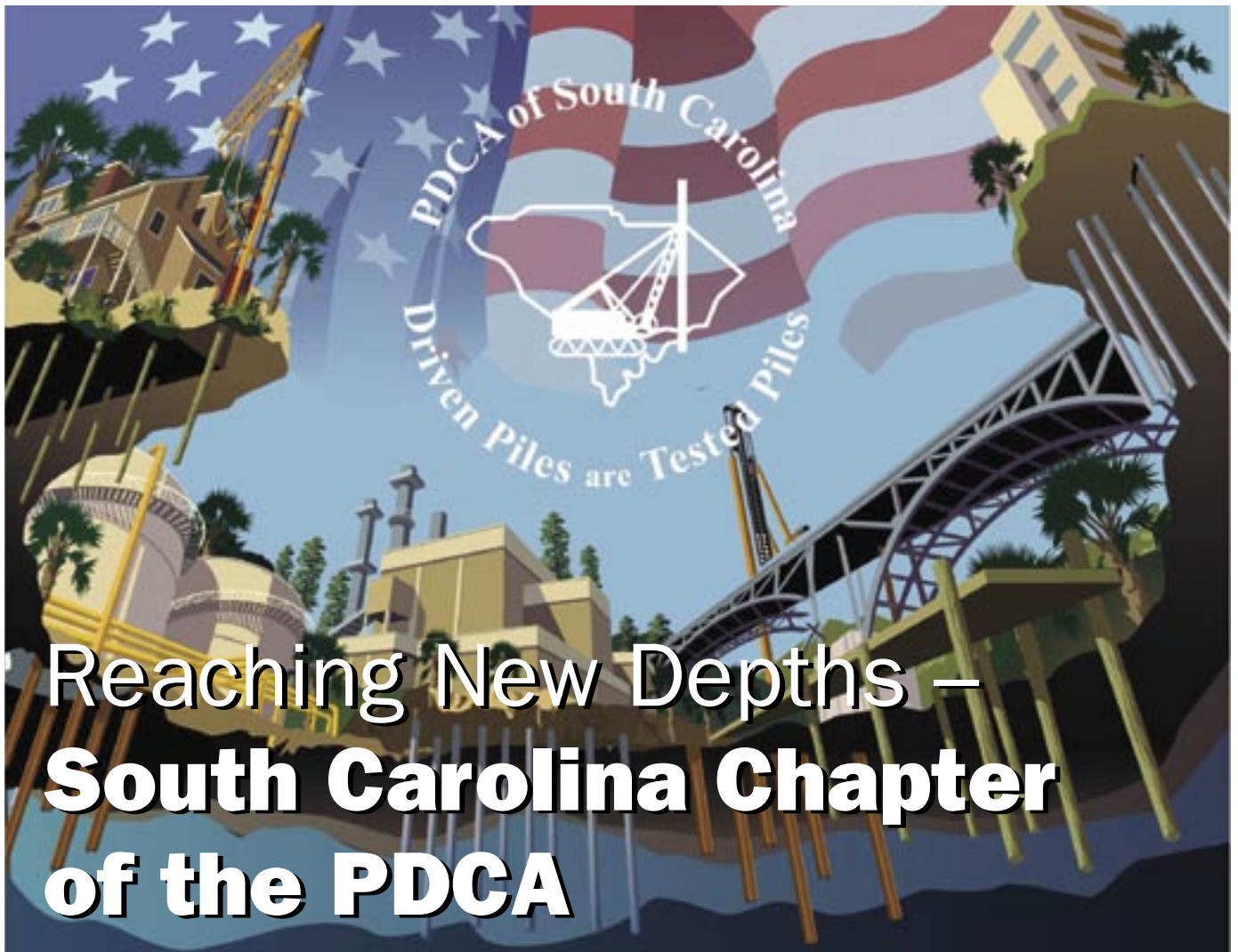


OFFSHORE RESULTS
 Demolition of offshore
 oil platform &
 underwater pipeline with
 concrete jacket

LBT ENTERPRISES LTD. | Ph: 204.254.6424 | Fx: 204.254.2980
 E-mail: prime@pilecutter.com | See the website at: www.pilecutter.com
 Call 800-665-7396 in Canada & U.S.A.



One of three pipeyards located in Lafayette, LA



Reaching New Depths – South Carolina Chapter of the PDCA

The PDCA's South Carolina chapter was founded in 2003. Its formation was born out of a necessity and desire of the founding members to collectively assemble and unite all of the pile drivers in the state to market their product – driven piles. The founding members of the chapter were: Cape Romain Contractors, Marine Construction, Palmetto Pile Driving, Inc., Parker Marine Contracting Corp, and Pile Drivers, Inc. One of the founding members, John King of Pile Drivers, Inc., and current President of the PDCA South Carolina Chapter understands the significance of local PDCA chapters. John states, "The local chapter creates an opportunity for all companies associated with pile driving to have a common voice on issues affecting their industry, helps promote the driven pile as an effective solution to deep foundation construction, and increases market share for the driven pile industry." John also indicated, "A big challenge the chapter overcame was convincing the members that the chapter was meant to unite the companies that represented the pile driving industry in the state of South Carolina and was not meant to be a forum for companies to seek an unfair competitive advantage." This challenge did not take long to overcome and now the chapter and its members are forging ahead and addressing the important issues as they arise.

The chapter began with 22 members, with pile driving contractors representing 7 of the initial 22. The balance of the membership was represented by structural engineers, geotechnical engineers, material suppliers, equipment suppliers, and trucking firms. The chapter's current membership includes 31 firms with 6 more prospective members ready to join any day.

Since its formation, the chapter has faced many issues and has made considerable progress on behalf of the members. However, the single most celebrated issue accomplished by the Chapter is their involvement in the College of Charleston, School of Business project, which was featured in the Summer 2004 issue of *Piledriver*. The project was originally designed on auger cast piles. However, the PDCA South Carolina Chapter came together during a pre-bid meeting and convinced the Engineers and School that driven piles would be a more efficient and effective alternative for their project, and steel piles were driven. Two years later, after seeing the benefits of driven pile over auger cast, The College of Charleston School of Education designed and constructed utilizing driven steel H-piles for the foundation. The PDCA South Carolina Chapter's story doesn't end there! When the College of Charleston started a Mixed Use Housing project, it too was on driven piles. Currently, there are two

NUCOR-YAMATO STEEL'S HP8, HP10, HP12 & HP14, PS AND PZ SHEET PILING

PILING PRODUCT FEATURES

CAST AND HOT ROLLED IN THE U.S.A.
NATIONWIDE PILING DEALER NETWORK
SHEET PILES HAVE PREFERRED BALL & SOCKET INTERLOCK
H-PILES AVAILABLE IN ASTM A572 GRADES 50 & 60

STEEL H-PILES

HP14x73, HP14x89, HP14x102, HP14x117
HP12x53, HP12x63, HP12x74, HP12x84
HP8x36, HP10x42, HP10x57



PZ SHEET PILING TECHNICAL DATA

Section Designation	WIDTH		HEIGHT		THICKNESS				AREA		PILE WEIGHT		WALL WEIGHT		SECTION MODULUS		MOMENT OF INERTIA		NOMINAL COATING AREA	
	in	mm	in	mm	FLANGE (t _f)	FLANGE (t _f)	WEB (t _w)	WEB (t _w)	in ²	cm ²	lb/ft	kg/m	lb/ft ²	kg/m ²	in ⁴ /ft	cm ⁴ /m	in ⁴ /ft	cm ⁴ /m	ft ² /ft	m ² /m
PZ22	22.0	559	9.0	229	0.375	9.5	0.375	9.5	11.86	76.51	40.3	60.0	22.0	107	18.1	973	84.38	11 500	4.48	1.37
PZ27	18.0	457	12.0	305	0.375	9.5	0.375	9.5	11.91	76.84	40.5	60.3	27.0	132	30.2	1 620	184.20	25 200	4.48	1.37
PZ35	22.64	575	14.9	409	0.600	15.2	0.500	12.7	19.41	125.23	66.0	98.3	35	171	48.5	2 600	361.2	49 300	5.37	1.64
PZ40	19.69	500	16.1	378	0.600	15.2	0.500	12.7	19.30	124.52	65.6	97.6	40	195	60.7	3 260	490.8	67 000	5.37	1.64

*Note: Nominal coating area excludes socket interior and ball of interlock.

PS SHEET PILING TECHNICAL DATA

Section Designation	WIDTH		WEB (t _w)		MAXIMUM INTERLOCK STRENGTH		MINIMUM ROTATION		AREA		PILE WEIGHT		WALL WEIGHT		SECTION MODULUS		MOMENT OF INERTIA		NOMINAL COATING AREA	
	in	mm	in	mm	k/in	kN/m	degrees	degrees	in ²	cm ²	lb/ft	kg/m	lb/ft ²	kg/m ²	in ⁴ /sht	cm ⁴ /sht	in ⁴ /sht	cm ⁴ /sht	ft ² /ft	m ² /m
PS27.5	19.69	500	0.4	10.2	24	4 200	10*		13.27	85.6	45.1	67.1	27.5	134.3	3.3	54	5.3	221	3.65	1.11
PS31	19.69	500	0.5	12.7	24	4 200	10*		14.96	96.5	50.9	75.7	31.0	151.4	3.3	54	5.3	221	3.65	1.11

*Note: Rotation decreases by 1.5 degrees per 10 feet for piles over 70 feet in length.

AVAILABLE STEEL GRADES

Section Designation	ASTM GRADES		YIELD STRENGTH		INTERLOCK STRENGTH	
			(ksi)		(k/in)	
PZ	A 328		39		—	
	A 572 Grade 50		50		—	
	A 572 Grade 60		60		—	
	A 588		50		—	
	A 690		50		—	
PS	A 328		39		16	
	A 572 Grade 50		50		20	
	A 572 Grade 60		60		24	
	A 588		50		20	
	A 690		50		20	

Delivery conditions and tolerances according to ASTM A6/AGM latest revision with the exception of length, which is +4", -0.

Maximum Rolled Lengths (longer lengths may be possible upon request)
PZ: 85 feet on single sheets, 70 feet on pairs
PS: 65 feet

NUCOR-YAMATO STEEL PILING DEALERS

- H** Fargo Tank & Steel Co.
Fargo, ND
701/282-2345
- H** Husker Steel
Columbus, NE
402/564-3271
- H** J.D. Fields and Company, Inc.
Chicago, IL
708/333-5511
Tulsa, OK
918/459-4638
Houston, TX
281/558-7199
- H** D.P. Nicoli, Inc.
Tualatin, OR
503/692-6080
- H** Mid-America Foundation Supply, Inc.
Fort Wayne, IN
260/424-0405
- H** National Pipe and Piling, Inc.
Tacoma, WA
253/274-9800
Sacramento, CA
916/729-0255
- S** Skyline Steel Corporation
Birmingham, AL
205/262-9909
Citrus Heights, CA
916/463-0105
Norcross, GA
770/242-9007
Tinley Park, IL
708/444-0999
New Orleans, LA
985/624-3620
East Sandwich, MA
508/833-4600
Earth City, MO
314/739-1303
- Middletown, NJ
732/671-5900
West Chester, OH
513/777-7039
Pittsburgh, PA
412/561-3995
Houston, TX
985/624-3620
Fairfax Station, VA
703/978-2500
Gig Harbor, WA
253/922-2727
Winter Park, FL
407/622-6001

H Steel H-Piling Dealer **S** Steel Sheet Piling Dealer



From L to R: Harry Robbins, John King, Lou Holtz, Richard Gilbert and Don Surrency



From L to R: John King, Sen. Lindsey Graham, Harry Robbins

Pile Quality Assessment

by the Foundation Testing Experts

Unmatched expertise in:

- Pile Driving Monitoring (PDA)
- Dynamic Load Testing
- GRLWEAP Analysis

With offices nationwide,
GRL is never far from your site.

GRL

Dynamic Measurements and Analyses

engineers, inc.

www.pile.com e-mail: info@pile.com

Main Office.....	216-831-6131
California.....	661-259-2977
Colorado.....	303-666-6127
Florida.....	407-826-9539
Illinois.....	847-670-7720
North Carolina.....	704-593-0992
Ohio.....	216-252-3076
Pennsylvania.....	610-459-0278

new parking garages in the planning stages for the College of Charleston and The City of Charleston that are being designed using driven pile. King states, “Never say it’s just one project. Convincing Engineers and Owners of the benefits of driven pile over other construction methods has long-term implications that benefit our industry; and the College of Charleston School of Business (and subsequent projects) is just one example of a driven pile victory and a local Chapter victory!”

“Another accomplishment we are very proud of is that we have opened a clear line of communication in our area between the engineering community and the pile driving community. PDCA of SC recognizes that by helping our engineering friends better understand the driven pile, we are more likely to get due consideration when deep foundations are designed.”

As Chapter President, King indicated the chapter’s future goals include growing the chapter membership, seeing to it that if deep foundations are called for in a project that everyone on the design team understands that driven piles are the best, and to help everyone to understand that vibration from pile driving is more myth than reality.

The chapter just had its first quarterly meeting of 2006 – the 12th since its inception, and recently conducted its 2nd Annual Driven Pile Technical Seminar with 88 attendees.

King feels that being a member of a local chapter “Makes the little guy (which represents a lot of today’s pile driving companies) part of a bigger group and once again provides them with a common voice.” King states, “Membership is the key. The greater the membership, the larger the voice, the larger the voice, the more our message is heard – ‘Driven piles are a much better product to build on!’”

When asked why he thinks there aren’t more local chapters, King said “Reason number one, you need someone like Harry Robbins (Co-Founder and first President of the PDCA South Carolina Chapter) to take a leadership role and help organize it. Like Harry, this individual must be very passionate about the necessity and benefits of a local chapter. Harry is a role model for all local chapters and as the 2006 National PDCA President, has dedicated himself to providing the framework to those who share his vision and passion for a local chapter.” The number two reason states King is “you need all the pile drivers to realize that you work together on public jobs and they are out there for everyone. The local PDCA does not get involved in private jobs unless asked to by the pile driving contractor. The more pile driving jobs out there, the more we all work.”

And finally, on the matter of local chapters, King says to PDCA members who are considering starting a local chapter of their own – remember what Randy Dietel, 2005 PDCA President said best during the 2006 PDCA Annual Conference in San Antonio, Texas this past March, “Local Chapters are where the rubber hits the road!” To King, this means, “Who cares more about the pile driving in your backyard than you? It’s your business, it’s your industry, it’s your future... support it and help it!” President Ronald Reagan’s favorite quote that he displayed in the Oval Office said, “There’s no limit to what man can do or where he can go if he doesn’t mind who gets the credit.” ▼



PDCA 2005 Project of the Year: Over \$1 Million

Charleroi Locks & Dam River Chamber Stabilization

The Locks and Dam #4, located on the Monongahela River near Charleroi, Pennsylvania, is in the initial stages of a multi-phase construction project under the direction of the U.S. Army Corps of Engineers. The dam structure was renovated in the 1960's and remains in excellent condition. The lock structures, however, are in poor condition and are in need of replacement. The existing locks were constructed in the 1930's and are supported on driven timber piles. The locks are comprised of a 56' x 720' main landside chamber, and a 56' x 360' auxiliary river chamber. As one of the initial contracts to be awarded as part this multi-phase project, the purpose of the River Chamber Demolition Contract was to perform the preliminary work necessary for the future construction of the new middle wall. Notice to Proceed was issued in October 2003 to Choi Enterprises, Inc. who, in turn, sub-contracted Joseph B. Fay Company to

perform the work. The concrete floor struts and pavers of the existing river chamber needed to be removed for the future construction of the foundation of the new middle wall whose center line will pass directly through the existing chamber.

Before the chamber could be dewatered for this work, 36-inch steel struts needed to be installed within the chamber to support the middle and river walls. The lower portion of the river wall that would be subjected to a water head differential when in the dewatered state had to undergo additional stabilization measures because the existing timber piles would not be able to take the additional loading conditions. This was accomplished with the H-Pile Stabilization Program that was conducted from August 25, 2005 until it's completion on October 26, 2005.

Driven Pile Considerations

The Charleroi Locks & Dam #4 River Wall Stabilization was chosen

as the PDCA Project of the Year (over \$1 million) for the extensive use of driven piles on a lock construction project to stabilize a portion of the lower river wall of the lock and to protect and prepare the river chamber for dewatering. The project pile work consisted of 814 tons of PS27 sheet pile and 180 tons of plated HP 14 x 117 piles. The main features of construction were to install a 30' diameter protection cell, a 47' diameter guard cell, two 47' diameter closure cells with 15' diameter arc wings, a 90' long sheet pile cut-off wall, a jet grout cut off wall, 40 plated HP 14 x 117 support piles, and the demolition of concrete struts within the dewatered chamber.

One of the most crucial features of work was the installation of the 40 support H-piles. These piles were installed to support the massive concrete monoliths of the lower guard wall while the river chamber was in the dewatered state. The design called for the piles to be driven to bearing capacities up to 600 tons. Approximately half of



the piles were to be driven on a batter of 9 to 29 to match the slope of the river face on the monolith wall. The remaining piles were driven plumb to match the chamber face of the monolith wall. All piles were to be connected to the monolith walls by welding them to 5'x 8'x 2" thick steel connection plates that were bolted to the monolith wall face. Precise control during driving was critical to keep the piles on the proper batter and to keep them within the limited weld zone of the connection plates. Access was difficult as the top of the monolith wall was only 5-foot wide and 22-feet above the waterline.

The Joseph B. Fay Company first drilled a series of 24, 1-3/8" holes into the monolith wall to grout in the anchor bolts that would hold the pile

connection plate. After the connection plate was mounted, special knockout template frames were fabricated that attached to the connection plate anchor bolts to align the pile at the water line. The templates were fabricated with removable shim plates to account for the cover-plated portion of the HP14x117. The top 22 feet of each HP14x117 pile was plated with 1" thick by 16" wide steel plates on both flanges. This caused a need for a 14" guide template during early driving and a 16" guide template near the end of driving. A combination access platform and variable width template was anchored to the top of the monolith wall to provide access for the crew and receive the pile leads. The Joseph B. Fay Company consulted PDCA member Sunbelt Pile



Michelle Lusader
President

ALL AMERICAN
UNDERPINNING & SHORING, INC.

PH: 630-307-9467
FAX: 630-213-3927

www.allamericanunderpinning.com

P.O. BOX 72566, ROSELLE, IL 60172 WBE Certified

• Underpinning • Earth Retention Systems • Driven Piling • Micropiles
aaunderpinning@aol.com

A AMERICAN ENGINEERING TESTING, INC.

☑ **Deep foundation analysis, consulting, testing**

Consultants: Geotechnical, Materials, Environmental, Forensic

Contact: William Cody, PE
800.972.6364 952.361.3781 Fax: 952.368.4218
1715 Lake Drive W., Chanhassen, MN 55317
Offices throughout the Upper Midwest www.armengtest.com

Driving for their hammer needs and a Berminghammer B5505 (rated energy of 106.2 kip-ft) equipped with a hydraulic starter and 32" box leads was chosen to drive the piles. A barge mounted 4000 Manitowoc crane handled both the piles and the hammer. The piles were set through the top access template and into the drive frame guides. Once the piles were set, the leads were pinned to the access template, and after the pile and leads were properly aligned, driving began under the direction of Michael Morgano of PDCA member GRL Engineers, Inc. who performed dynamic testing on each pile.

The scope of the dynamic testing first involved the testing of two piles, which were monitored using the Pile Driving Analyzer® during initial driving and during restrike, approximately one week after initial driving. Testing was also to be performed on each of the 40 production piles during initial driving to compute pile capacity and evaluate pile integrity. The piles were to be driven through about 20 feet of alluvium to the top of rock at elevation 690 feet. It was assumed that the piles would drive through the upper Clay Shale formation until they reached the Ames Limestone formation at the approximate elevation of 680 feet.

Dynamic testing of the two initial test piles on this project indicated a potentially dangerous loss in pile capacity over time due to relaxation at the pile toe in the Clay Shale. The CAPWAP® computer program was used to analyze the collected data and indicated the loss in end bearing was approximately 22 and 38 percent for the two test piles. Based on these observations and on past experience with relaxation, criteria were established to estimate the capacity loss for piles within a given design load range as follows:

Design Capacity Range	Assumed end bearing loss
400+ kips (1780+ kN)	22%
301 to 400 kips (1339 to 1780 kN)	38%
200 to 300 kips (890 to 1335 kN)	50%
less than 200 kips (890 kN)	60%

Adjustments to the required service life capacities of the piles were made to account for the losses. Using the above established criteria, the target end of drive capacities were calculated to account for the specified safety factor of 2, the assumed end bearing loss due to relaxation, and a small increase in friction capacity due to soil set-up. Because all piles on the project were tested, each pile was driven continuously until dynamic measurements indicated the target end of drive capacity had been mobilized, as opposed to the typical practice of determining

blow count driving criteria to achieve the required service life capacity. Testing throughout the driving of production piles verified the required capacity and integrity of each pile and provided reliable foundation quality control.

Design/Award Considerations

This project was considered for this award because the tolerance of driving piles was critical. The piles had to be driven under water with care to avoid existing underwater concrete structures. Likewise, the placement was critical for the next

M,G&B HAS BEEN DELIVERING ON TIME FOR OVER 15 YEARS

LOSE WAIT

On Time Deliveries From The M,G&B Load Warriors



M,G&B has been helping PDCA members with their shipments for over 16 years. We have not been sitting still, we are aggressively growing and adding services to help PDCA. We are doing all this while maintaining the same dependable, personal service PDCA members have come to expect.

OUR NEW SERVICES:

- **On-Line E-Load:**
Enter or Track your Loads On line.
- **Credit Card Payments:**
Convenient and Easy
- **FREE Lucky Loads:**
Our way of saying thank you. For every 100th load, some lucky shipper will receive their shipment for FREE!

We wish to thank PDCA members for their continued support and are looking forward to working with you.

Call today to get your shipment delivered on-time and receive a FREE Load Warrior T-shirt. Plus you will automatically be entered in our Lucky Load Contest.

1-800-256-2185

www.mgbservices.com







Owner: U.S. Army Corps of Engineers, Pittsburgh, PA

General Contractor: Choi Enterprises, Inc, Pittsburgh, PA

Sub-Contractor: Joseph B. Fay Company, Tarentum, PA

Pile Testing Consultant: GRL Engineers, Cleveland, OH

Suppliers: Sunbelt Pile Driving Equipment, Charlotte, NC; Skyline Steel, LLC, Parsippany, NJ; Dura-Bond, PA

phase where battered anchors were to be installed between the piles to support the monolith wall sections for further excavation under the wall foundation. The piles were secured to the sides of the monolith wall sections by bolted 5' x 8' steel plates.

Project Benefit

This stable wall for future expansion of Charleroi Locks will allow larger barges to pass through locks, making transportation on the river more efficient and cost-effective. ▼



GZA GeoEnvironmental, Inc.
CONTRACTOR SUPPORT SERVICES
 One Edgewater Drive
 Norwood, MA 02062
 781-278-3700
 www.gza.com



Live photo courtesy of PDI

<ul style="list-style-type: none"> ■ Dynamic Pile Testing (PDA) ■ Static Pile Testing ■ Wave Equation Analysis (WEAP) ■ Cross-hole Sonic Logging (CSL) ■ Vibration Monitoring ■ Deep Foundation & Geotechnical Instrumentation ■ Pre- & Post-Construction Surveys ■ Foundation and SOE Design ■ Subsurface Exploration ■ Foundation Qa PDA Certified Operators 		
		



PILE DRIVING CONSULTANTS

Dynamic Pile Testing, PDA
 Static Pile Testing
 Pile Instrumentation
 Pile Driving Consulting
 Cross-Hole Sonic Logging

PO Box 25065
 Salt Lake City,
 Utah 84125-0065

Ph: 801-908-7664
Ph: 801-908-7668
Fax: 801-908-7681



Pile Tips – WPC Wins 2006 ACEC-GA Engineering Excellence Awards Competition

WPC, an engineering, environmental, and construction services firm, recently won the Grand Award for the 2006 ACEC-GA Engineering Excellence Awards (EEA) competition. The EEA competition is a national program sponsored by the American Council of Engineering Companies (ACEC). The project submitted by WPC for the competition, the “Southern LNG Terminal Expansion Project,” involved the construction of an additional LNG tank at the Southern LNG terminal located on Elba Island in Savannah, Georgia. WPC provided an in-depth subsurface investigation, seismic analysis, and test pile program for the design and construction of the expansion project.

As one of only four marine LNG terminals currently located in the U.S., the import facility which is owned and operated by El Paso Corp., will soon boost more than 7 billion cubic feet of liquefied natural gas, providing needed relief to the already tightening inventories of natural gas currently available in the U.S. The Southern LNG Terminal is regulated by the Federal Energy Regulation Commission (FERC), and

therefore, must adhere to stringent engineering and design standards similar to nuclear power plants in order to obtain the necessary permits for the terminal expansion.

The WPC Savannah Office, led by Dr. Guoming Lin, was contracted to provide the services. WPC’s geotechnical and seismic study set new records for geotechnical work in the Savannah area in terms of boring depth, use of new technologies in field exploration and laboratory testing and intensity of foundation and ground improvement evaluation. Subsequent to the geotechnical study and FERC review, WPC performed a pile load test combining several innovative and state-of-the-art techniques. WPC engineers were able to demonstrate that sand layers, after densification from pile driving, would not succumb to liquefaction even during a 10,000 year earthquake. In addition, WPC was able to improve lateral load capacities using site specific load capacities obtained during the pile load tests.

In a review memo written by the FERC expert, Dr. Felix Yokel stated “All field exploration was performed in

accordance with applicable standards and was of a very high quality,” and “it is also noted that the principal investigator, Dr. Guoming Lin, has considerable knowledge and experience in dealing with the conditions encountered at this particular site.” On his review memo to the FERC on WPC’s Pile Test Report, Dr. Yokel noted, “In my opinion the testing program was well conceived and executed.” According to engineers with CB&I, the design/build contractor on the project, they have not witnessed similar positive remarks by Dr. Yokel on geotechnical and seismic studies on previous projects. ▼

About WPC, Inc.

Founded in 1993, provides a wide range of design, planning, and testing with geotechnical, construction services, and environmental engineering projects. This blend of services is often interrelated with the cycle of a project allowing WPC engineers to have a holistic approach to the project. WPC is based in Mt. Pleasant, SC with additional offices in Columbia, SC; Myrtle Beach, SC; Charlotte, NC; and Savannah, GA. For more information, visit www.wpceng.com.

Tropical Hardwood

Piling, Decking, Timbers, Fenders and Drag Line Mats

Servicing the Marine Construction & Boardwalk Industry Since 1971

We are the Industry Leader with a proven track record of delivering on time, to specifications, and on budget.



Greenheart
Purpleheart
Ipe / Bethabara
EKKI / Azobe
Cumaru
and more

GREENHEART PILES

Many sizes available from stock
Call for details



CECCO 
TRADING, INC.

Naturally Durable Hardwoods and Fabrication

For More Information:
414-445-8989 • Fax: 414-445-9155
www.ironwoods.com • info@ironwoods.com

Collecting Your Money or, Why Some Contractors Work for Free

By Mark J. Rice, Esq. – Attorney to Pile Driving Companies

Most participants in construction think “the job” first, and “the money” second, or only when trouble is brewing. Usually, by that point, it may be too late to develop a good collection system. The following are some helpful tips for your controller, office staff, and collection personnel, as part of a routine to “think like a lender” and be the squeaky wheel who gets paid, without having to go to court.

Why do Subcontractors Work for Free?

Charitable work can be the most gratifying of endeavors – that is, where the charity is by choice. Too often, subcontractors, engineers, subconsultants, and others far down the economic food chain are told they must wait months or even years for payment after their blood, sweat, toil, and piles are all in the ground. Here are some basic underwriting tasks to do on each project and each bid, up front, to think like a lender. The key questions are always, how am I going to get paid and what remedies are available if I do not get paid?

Here are some common sense ideas that bear mention even if for most, they are already woven into the contract administration of the office and the interaction between marketing,

estimating, accounting, clerical, and risk management personnel:

Failure to Read the Contract. A written contract usually controls over contrary terms, handshakes, and those famous words at the end of the project, “I will take care of you don’t you worry.” I say, start worrying! Read the contract proposal with care, and highlight terms that are either unclear or contrary to your bid terms or standard practices. Use your risk management team – insurance broker, CPA and attorney – to help you craft good, protective language and avoid bad contracts.

Here are some examples of bad contract language that can alert you to a contractor who may be difficult to deal with: A “paid if paid clause” provides that no monies are ever due unless and until the prime contractor collects from the project owner. What if the owner goes bankrupt, are you out of luck? In California, we have a court decision, *Yaminishi v. Bleily & Collinsshaw* (1972) 29 CA3rd 457, that stated these clauses are to be read in a limited and reasonable way not as an absolute condition, but as a reasonable time frame for cash flow. Check your state’s approach to such clauses.

Some contracts call for waiver of lien rights. In many states, it is void against public policy to waive lien

rights before starting work, because the state law on liens is protective of unpaid claimants.

DRIVE-CON, INC.
THE DRIVING FORCE IN PILE DRIVING EQUIPMENT

**SALES
RENTALS
SERVICE**

**SERVICE TECHNICIANS AVAILABLE
24 HRS. FOR ON-THE-JOB SERVICE**

Serving the mid-Atlantic Area

J&M
Foundation Equipment

Vibratory Hammers, Hydraulic
Impact Hammers, Top Drive
Drills



**301-776-2211
FAX: 301-776-0011 800-255-8963**

Some contracts have one-sided indemnity provisions that require a subcontractor to defend and indemnify the prime contractor even if the subcontractor has no fault. Consider using a clause where each party defends and indemnifies the other to the extent of fault, as a fair and balanced “pay for what you break” approach. Indemnity clauses are written to require one party to pay for what another party breaks. This sort of “Type I” indemnity clause can be particularly onerous when the prime contractor also requires the subcontractor to name the prime contractor as an “additional insured” under the subcontractor’s general liability policy. Now, the subcontractor and its insurer may be faced with defending claims that arise from design, or excluded scopes of work, simply because at the end of the day, the pile driver was driving the pile.

Schedule clauses should be reviewed with care. What are the liquidated damages on the project? What level of input does the subcontractor have in developing the schedule? Are there special access, or lead time issues to contend with? If there are, they should be addressed in specific contract language.

What are the dispute resolution clauses? Does the subcontractor have to wait until the prime contractor completes his claim with the owner? Is retention due at the end of the project even if the piling has been accepted for years, and is holding up the building? Pile drivers should state in their proposals that final payment including retention is due 30 days after acceptance of the piling. Once the pile caps are poured over the piles, there is no more “punch list” for the pile driver to perform, and

no reason to hold onto the pile driver’s money any longer.

Investigate the Project, Owner, and Prime Contractor. It is important to develop a project information sheet to submit via fax or e-mail to prime contractors and owners soliciting bids. They can then fill it out and tell you whether the project is public or private, the name of the owner, lender, surety (if any), bond number, property address and assessor’s parcel number (APN), and other key information. This sheet will prove invaluable later in filling out the key collection paperwork such as pre-lien notices, mechanics liens, stop notices, and claims on payment bonds. Get this information at the outset when everyone is happy to share data, not at the end of a bad project when no one will return anyone’s calls and the money has run out.

Other investigative means are available such as Internet tools that reflect a party’s litigation history, credit, security interests and real property ownership, tax liens and the like. Every contractor should have some search engine to use to investigate, in addition to checking the license board for other contractors’ good standing.

Always, Always, have a valid contractor’s license. Most states require that to go to court to collect money, a contractor must have a valid license from the start of the contract to the end. Some courts and states interpret this very strictly. As an example – a contractor who owns an individual license, but does business under a corporation that does not have a license, may be out of luck. Two licensed contractors who enter into a joint venture without getting a separate joint venture license may be out of luck. If you are held unlicensed, you do not collect, and may have to pay back what you were paid while unlicensed. It can be a real disaster. Be sure your license is correct and you are doing business under your licensed name, and avoid these horror stories.

Timely serve pre-lien notices using the proper forms every time. On many projects, a subcontractor has no right to record a mechanics lien on the property, or rights against the construction fund of the owner by

CONMACO

- Pile Hammers
- Caps & Helmets
- Pile Cutters
- Cranes
- Leads & Accessories
- Spotters
- Jet Pumps
- Winches
- Parts & Service

880-259-7330
www.conmaco.com

Belle Chasse, LA Kansas City, KS
Chesapeake, VA Chicago, IL

DEPEND ON OUR QUALITY
BENEFIT FROM OUR EXPERIENCE

H&M VIBRO, INC.

P.O. Box 224, Grandville, MI 49468
Toll Free: (800) 648-3403
(616) 538-4150
www.hm vibro.com

Model H-1700 Vibratory Driver/Extractor

Features:

- 75 Ton Pile Clamping Force
- 30 Ton Extraction Line Pull
- Weight: 7,000 Pounds
- Optional Counterweight: 3,600 Pounds
- CAT 3126 Power Pack

SALES AND RENTALS

JUNTTAN

We design and manufacture
the most advanced piling equipment
for the world's leading piling contractors.



Junttan Oy

P.O. Box 1702
70701 Kuopio, Finland
Tel: +358 17 287 44 00
Fax: +358 17 287 44 11
www.junttan.com
Email: junttan@junttan.com

Junttan Oy / USA Sales Ahti Knopp / Sales manager USA

Tel: 1-404-514-8056
Email: ahti.knopp@junttan.com

S.P.E. / Southeast USA Derk Van Den Heuvel

RD 4, Box 217B
Frankford, DE 19945
Telephone: 1-302-539-7187
Fax: 1-302-539-4443
www.spe-usa.net
Email: info@spe-usa.net

F.S. Supply / Northeast USA Joe Savarese

P.O. Box 452, Keyport
New Jersey 07735
Tel: 1-732-530-3782
Fax: 1-732-530-5355
www.fssupplyco.com
Email: j.f.savarese@att.net

stop notice, or even rights against a payment bond, unless a timely pre-lien notice is properly served. Too often, this paperwork is forgotten until a problem arises, and then it is too late. Develop a system with trained staff to know the applicable forms, and use them every project. A pre-lien notice, such as a preliminary 20-day notice, is like a guarantee of payment from a second source – the owner’s fund, the land, or the surety. To have the guarantee, one must have the right form served on the right parties at the right time. Get this procedure down pat, and you will preserve those key rights.

Do not wait until the last minute to start collection efforts. Much of collection strategy is getting there first, when the debtor is still flush with cash, and when the job has not soured. An early sub who waits for payment until the project ends, may find that the owner or prime went bankrupt, or the owner terminated the contractor, or there was a major accident on site. This makes collection more difficult. Get in line early. Calendar your invoice due dates and have staff call and take notes of conversations over when the check will be sent. Once an invoice is 45 days past due, especially if the project is coming to a close, consider filing a lien, stop notice, or bond claim. Once you do, turn it over to your attorney for suit. Do this once, and you will retrain recalcitrant payers who thought you worked for free.

Some tips on invoice and bid language. States have different rules on finance charges. In California, it is not usury to charge 18 percent finance charge on delinquent balances. A frequent California invoice or bid form might read,

“18 percent per annum finance charges apply upon all past due amounts”. This can be handy in collection negotiations, as these “cost of money” clauses really add up.

Prompt Pay Statutes are there to encourage payment. Many states have adopted “Prompt Pay” Statutes that call for penalty interest and attorneys fees in the event a prime contractor is paid a progress payment that is partly for a subcontractor’s work, and fails to pay the subcontractor his portion within 10 or so days. These statutes seek to prevent others using your money to finance their cash flow woes. Many state agencies now have Web sites that display when a prime contractor is paid, for more transparency.

Call a meeting, and bring your experts to avert trouble early. Many lawsuits are simply about meetings that needed to take place and did not. The failure to timely communicate is the root of not only construction problems, but collection problems. The contractual expectations to be real must be enforced; enforcement starts with gentle and then not so gentle reminders of “this is what we agreed – I agreed to work, and you agreed to timely pay for that work.” When there is a genuine dispute over workmanship, schedule, delay, safety, claims and the like – meet with the other parties and get it resolved, and plan together how to “Get to Yes.” Bring a knowledgeable engineer with you to help analyze and present your position if valid and help you sort out in advance if you are right, wrong, or a little of both. Do not wait. Establish dispute resolution as part of project management to avert collection stalemates, and a lawyer feeding frenzy later in court at your expense.

If you have a valid claim for extra costs, properly and timely document. Many valid extra cost claims are lost due to untimely or weak documentation that does not establish entitlement, or meet the notice requirements of the contract or specifications. Many specifications require a notice of potential claim within 48 to 72 hours of a claim event as a condition of a later claim. Also, be sure that the claim is valid, well supported, and not “smoke and gas” or riddled with errors. Such claims can expose a contractor to false claim liability. Have a CPA review your costs, and make sure they are based on actual costs and not pie-in-the-sky formulas or cookbook recipes. Those recipes usually do not taste good, and the contractor is often forced to eat his words later if the claim is overstated or lacks support. Use great care in this area in today’s market where public owners may be more than willing to countersue.

Conclusion

Pile Drivers in bidding can be said to literally “bet the company” on many a risky project. The construction and design challenges need not be compounded by poor collection practices. Get your collection team in shape, with good forms and procedures, think like a lender, and always get paid. ▼

Mark J. Rice is a California attorney who represents pile driving contractors, and is a member of the California ACG Legal Advisory Committee. Mr. Rice litigates differing site condition claims, defective specification claims, and property damage claims. He can be reached at markjrice@msrwlaw.com.

<p>PILE DRIVING TIE BACKS and ANCHORS Pile Load Testing-All Types to ASTM Standards</p>	
<ul style="list-style-type: none"> • COFFERDAMS • SEWER and WATER LINES • BRIDGES • MARINE CONSTRUCTION • DAMS 	<ul style="list-style-type: none"> • SLURRY and BARRIER WALLS • HEAVY and INDUSTRIAL FOUNDATIONS
<p><i>VALUE ENGINEERED SOLUTIONS TO DIFFICULT PROBLEMS</i></p>	
<p>HERBERT F. DARLING INCORPORATED</p>	
<p>Engineering Contractors Since 1940</p>	
<p>131 California Drive, Williamsville, NY 14221 (716) 632-1125 FAX (716) 632-0705 Email piling@HFDarling.com</p>	
<p>SERVING NEW YORK, OHIO and PENNSYLVANIA</p>	

Driving The Recovery

Chaparral Steel is proud to produce the PZC Sheet Piling used in rebuilding the levee along New Orleans' 9th Ward.



IHNC East Side
Floodwall Repair
by Cajun
Constructors, Inc.,
using PZC 13
supplied by
L.B. Foster Co.

"The width and strength of the Chaparral PZC 13 sheets have made this project move faster, saving both time and money." Andrew Lopez, Project Manager, Cajun Constructors, Inc.

Learn More:

www.sheet-piling.com

CHAPARRAL

www.chapusa.com • 1-800-527-7979

Wider. Lighter. Stronger.

info@sheet-piling.com USA sales: (800) 848-6429

CHAPARRAL

Sheet-Piling.com :PZC26

metric imperial

Wall Tool

Cofferdam Tool

PS-Flat Sheets

CAD
Data-sheets
Downloads:

Show only products 100% Melted and Manufactured in the US

Your Complete North American Steel Piling Resource Site

Sheet-Piling.com is an international partnership to fulfill all of your North American piling needs!

The partners:

Chaparral Steel - U.S.A. steel piling producer: Z-sheets (ball and socket interlock), PS-flat sheets, and beams.

Peiner Träger - German producer of peiner beams for sheet pile.

L. B. Foster - U.S.A. piling distribution and sales organization with primary North American distribution for Chaparral Steel.

We offer a complete line of sheet-piling, for further information or to request a quote, please click on the particular designation that meets your required section modulus.

Many piling designations are in stock and immediately available. All products listed can usually be delivered within 4 to 8 weeks.

Chaparral Handbook available

Click here to receive our Chaparral 2006 sheet piling handbook



Piling Designation	Solution Type	Section Modulus ? in ³ /ft	Weight ? lbs/ft ²	width ? in
PZC 12		22.4	20.0	27.88
PZC 13		24.2	21.7	27.88
PZC 14		26.0	23.7	27.88
PZC 17		31.0	22.3	25.00
PZ27 RU		31.0	27.7	18.00
PZC 18		33.5	24.2	25.00
PZC 19		36.1	26.4	25.00
PZC 23		45.7	29.9	27.88
PZC 26		48.4	31.8	27.88
PZC 27		48.9	35.0	22.64
PZC 28		51.2	34.0	27.88
PZ40		61.3	40.0	19.69
PZC-B 41		75.7	34.2	76.05
PZC-B 42		83.9	34.8	76.05
PZC-B 51		95.1	36.0	76.05
PZC-B 57		106.8	37.2	76.05
PZC-B 62		116.3	38.9	76.05
PZC-B 65		120.3	39.7	76.05
PZC-B 68		126.2	40.8	76.05
PZC-B 70		129.7	41.4	76.05
PZC-B 77		143.4	44.8	70.29
PZC-B 89		165.7	50.0	76.05
PZC-B 98		181.9	53.2	94.87
PZC-B 100		188.4	54.5	94.87
PZC-B 106		197.8	56.2	94.87
PZC-B 109		203.4	57.3	94.87
PZC-B 118		219.0	61.0	89.11
PZC-B 140		261.3	71.0	94.87
PZC-B 151		280.6	75.6	89.11
PZC-B 160		298.5	82.5	84.39

Sheet-Piling.com :PZC26 info@sheet-piling.com USA sales: (800) 848-6429 **CHAPARRAL**

Wall Tool Cofferdam Tool PS-Flat Sheets

metric imperial

CAD
Data:sheets
Downloads:

PZC 26

pz90
 colt
 cobra
 pztee
 joker
 bullhead
 cbf

PilePro® Corners and Tees in stock and available to ship immediately with sheet piles

Detailed Specifications: PZC 26

section modulus ?	48.4 in ³ /ft.
width ?	27.88 in
weight ?	31.8 lbs/ft ²
interlock ?	ball and socket
section depth ?	9999.0 in
moment of inertia ?	994.3 in ⁴
flange thickness ?	0.60 in
web thickness ?	0.53 in
weight (per section) ?	73.9 lbs/ft
cross section area ?	21.72 in ²
nominal coating area ?	6.15 ft ² /ft
total surface area ?	6.65 ft ² /ft

Compute a wall solution employing the PZC 26

Wall length ? (ft)

Sheet-piling length ? (ft)

Sheet-Piling.com :PZC-B 51 info@

Wall Tool Cofferdam Tool

PZC-B 51

PSp900 PBS-M PZC-13 PZC-13 PBS-F PSp900

Detailed Specifications: PZC-B 51

section modulus ?	95.1 in ³ /ft.
weight @ 60% ?	36.0 lbs/ft ²
weight @ 80% ?	39.8 lbs/ft ²
weight @ 100% ?	43.6 lbs/ft ²
panel width ?	76.05 in
flexibility ?	--- - o
setting ratio ?	76.2%
driving ratio ?	23.8%
nominal coating area ?	--- - ft ² /ft
section depth ?	35.43 in
moment of inertia ?	1684.4 in ⁴

Compute a wall solution employing the PZC-B 51:

Wall length ? (ft)

Beam length ? (ft)

Sheet-length ? (ft)

When the Levee Breaks: Rebuliding New Orleans

By Dean Abbondanza, Engineering & Marketing, Skyline Steel LLC

Hurricane Katrina was the 11th named storm, fifth hurricane, third major hurricane, and first Category 5 hurricane of the 2005 Atlantic hurricane season. It was the third most powerful storm of the season, and the sixth-strongest ever recorded. Katrina formed over the Bahamas on August 23, and crossed southern Florida at Category 1 intensity before strengthening rapidly in the Gulf of Mexico, becoming, at that time, the strongest hurricane ever recorded in the Gulf. Only to be broken later in the season by Hurricane Rita. The storm weakened before making its second landfall as a large Category 3 storm on the morning of August 29 along the Central Gulf Coast.

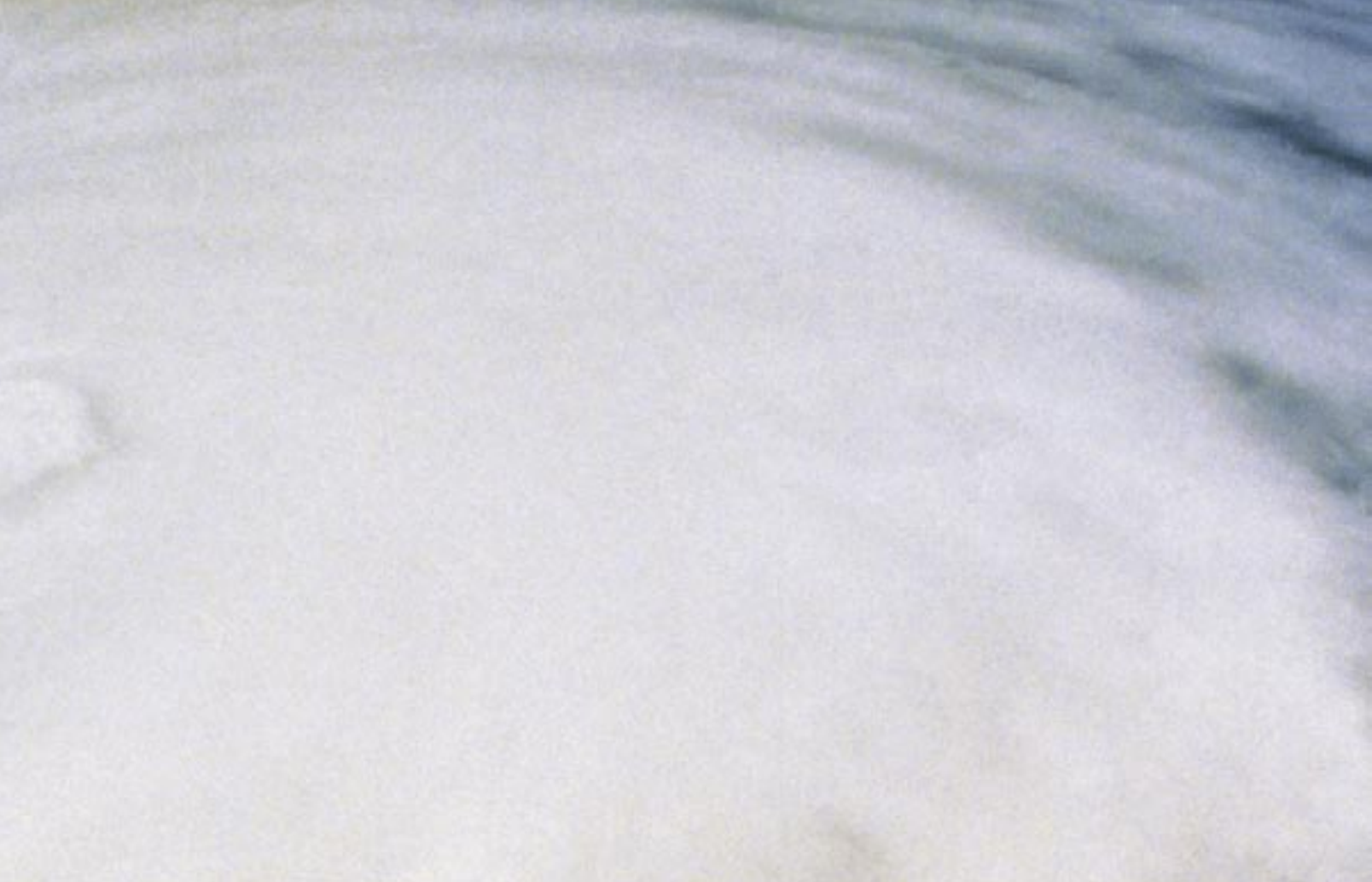
The storm surge from Katrina caused catastrophic damage along the coastlines of Louisiana, Mississippi, and Alabama. Levees separating Lake Pontchartrain from New Orleans were breached by the surge, ultimately flooding about 80 percent of the city, all of St. Bernard Parish and portions of St. Tamanny and Plaquemines Parish. Wind damage was reported well inland, impeding relief efforts. Katrina is estimated to be responsible for \$75 billion in

damages, making it the costliest hurricane in United States history; the storm killed more than 1,400 people, becoming the deadliest U.S. hurricane since the 1928 Okeechobee Hurricane.

In moments of tragedy, it is the indomitable human spirit that gives us the strength to rise above adversity. In summer 2005, Hurricane Katrina cast a very dark shadow on the U.S. Gulf shores. Katrina was one of the worst natural disasters to strike the U.S. in more than 75 years. The path of destruction she left behind throughout the Gulf coast is still visible today. The outpouring of aid and assistance from individuals, groups and corporations that followed these tragic days proved the power of the human spirit can and will triumph.

Of all the Gulf coast areas stricken, New Orleans was one of the hardest hit. With an average elevation of 16' below sea level, the city of New Orleans bowl like landscape is protected by an elevated levee with the sole intention to keep the water out. The levee was designed to withstand storm events, but no one had anticipated anything of this magnitude. On midday Aug. 29, 2005, the storm surge of Katrina swept across the levee at the 17th





street and London Street canals with such incredible force, a 300' wide breach in the structure opened and the waters from Lake Pontchartrain came pouring in. Faced with loss of life, immediate action was needed to limit those losses and stem the flood waters at both points.

As the "authority having jurisdiction" The U.S. Army Corps of Engineers rapidly assessed the damage and developed a rehabilitation plan. They recognized that securing the breaches was priority one. Until the inflow of water was stopped, dewatering would be futile. Consideration was given to numerous temporary methods of construction for the levee repair, but availability of materials, constructability, and speed

of installation were the prevailing factors. The obvious solution was hot rolled steel sheet piling, and lots of it!

As one of the largest marine contractors in the district, Boh Brothers holds annual maintenance and construction contracts with the Corps. In operation for more than 80 years, Boh Brothers has been involved with the New Orleans growth and community for a long time. When the Corps called on their marine contracting expertise to expedite the response and start repairs, they were ready to start rebuilding. The experience and quality relationships they possess with their vendors in the marine & pile construction industry has served Boh Brothers well. They knew exactly where to turn for



Never forgotten, the tragic events of Katrina are months past, but still remaining in the hearts and eyes of those who survived.



Wood Pilings Rot.



Pearson Pilings Last.

Don't waste your money building a new dock or pier with material that deteriorates the moment it hits the water. Pearson Composite Pilings look better and last longer than wood or steel—
and they're environmentally safe!

- Stronger than wood—resists Mother Nature and high impacts
- Smooth, natural brown finish always looks new
- No harmful or illegal preservatives
- No rot, splinters or rust—ever!
- 10", 12" and 14" diameter
- Increase the value of your waterfront home or commercial facility




846 Airport Road • Fall River, MA 02720 • 508-675-0594

For more information including test data, visit www.pearsonpilings.com or call Mark Pearson.

immediate supply of steel sheet pile; Skyline Steel. Boh Brothers have been purchasing steel piling from Skyline for more than 20 years. Skyline has always been considered a highly responsive supplier carrying large quantities of inventory. The City of New Orleans and the Army Corps of Engineers would put that claim to the test.

By Tuesday morning, less than 24 hours after the breach, Skyline Steel received an emergency company wide request for available sheet pile & structural steel on the ground. With a combination of AZ sheet piles and 24" wide flange beams from Nucor-Yamato Steel, Boh Brothers had devised a remediation plan to repair the levee with material on the ground. On Wednesday morning, the first of eighteen truckloads carrying over 400 tons of AZ-18 sheet piles ranging in length from 50' – 65' were on the road to New Orleans. Come noon Thursday, Boh Brothers had begun driving the first of 143 pairs of sheet pile narrowing the breach. In the following days, the levee would be secured and the dewatering would commence. New Orleans was on its way to recovery.

The temporary sheet pile wall installation was comprised of hot rolled AZ-18 sections and Nucor 24X146 wide flange beams. Because this was a temporary rehabilitation, material lengths and pile section were not as critical to the repair as was getting them in place as soon as possible. The Corps would later let a contract for the sheet piles to be removed and a new permanent wall to be constructed of AZ-26 @ 65' lengths. This contract was awarded to Boh Brothers and they again turned to Skyline Steel for the material source. Almost exactly two months to the day of the tragic event, Skyline delivered

SHORELINE  STEEL, INC

DOMESTIC STEEL SHEET PILING

THOMAS M. WILLEY

Phone: (800) 522-9550
 Res: (248) 545-1745
 Fax: (586) 749-6653
 Email: tomwilley@shorelinesteel.com
<http://www.shorelinesteel.com>

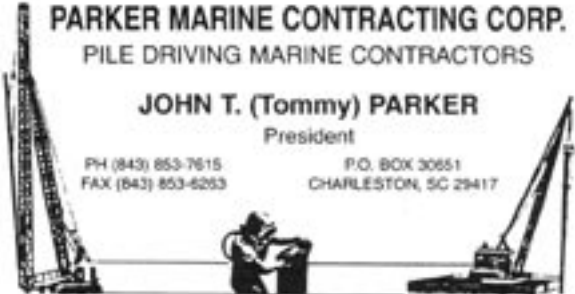
(586) 749-9559
 58201 Main St.
 New Haven, MI 48048

PARKER MARINE CONTRACTING CORP.
 PILE DRIVING MARINE CONTRACTORS

JOHN T. (Tommy) PARKER
 President

PH (843) 853-7615
 FAX (843) 853-6253

P.O. BOX 30651
 CHARLESTON, SC 29417



the first of 203 pairs of AZ-26 sheet piles for the permanent installation. This will get the levee back up to a Category 3 design or better. The Corps and other federal agencies in association with consultants are going through cost engineering and risk analysis to determine the disaster category levee design required for the long term protection.

Never forgotten, the tragic events of Katrina are months past, but still remaining in the hearts and eyes of those who survived. No one can be certain that the New Orleans landscape will return to its original luster. All around, there are still reminders of the devastation, but the clean up continues. Whatever effect Hurricane Katrina has imposed on the future infrastructure requirements to protect the Gulf shores will become evident in the upcoming months. ▼

Note From Skyline Steel:

Skyline is accustomed to being part of every day material solutions for our customers. The importance of this delivery transcended company goals. When you directly impact life safety, service and response become more than company values. We are proud to have played a part in the solution that repaired the 17th Street & London Street canal breaches. Not for reasons of financial gain or notoriety, but for reasons of human interest. Being able to contribute in a time of despair gives an unrivaled sense of purpose. We take great joy in knowing that our response may have helped with the rescue efforts. Skyline will remain committed to offering the availability and service to meet those material needs.



Timber Piling Solutions For Marine Construction

Low cost piling solution for Foundation & Marine piling.
Great product for marinas, docks, and bulkheads.
Design information available.
Technical seminars available.

TIMBERPILINGCOUNCIL
FOUNDATION & MARINE PILING

800-410-2010 pst fax: 206-275-4755
www.timberpilingcouncil.org info@timberpilingcouncil.org

SURE-LOCK

CONCRETE PILING SPLICES

ALL SIZES AND SHAPES OF PILING FOR MOMENT, TENSION & COMPRESSION
ENGINEERED TO CODE & DOT REQUIREMENTS
FAST - NO WELDING OR GROUTING

Getting them together for over 30 years

Glenn Lockle National Ventures Inc.
Ph 415-331-7260 Test Reports, Brochure,
Fax 415-331-7261 and CD-ROM available

www.pilesplices.com

Driving Piles? Plan Ahead.

GRLWEAP Software

- Simulates pile driving.
- Predicts driving stresses.
- Estimates hammer performance and driving time.
- Plots pile bearing capacity vs. set per blow.

PD
Pile Dynamics, Inc.
Quality Assurance for Deep Foundations

Tel: +1 216-831-6131
Fax: +1 216-831-0916

e-mail: info@pile.com
www.pile.com



The Pile Driving Contractors Association
"A Driven Pile is a Tested Pile"

**JOIN
NOW**

MEMBERSHIP BENEFITS

General Membership Information

We are the premier association for pile-driving contractors

The PDCA was founded in 1996 to promote use of driven-pile solutions in all cases where they are effective. We strive to build and maintain working relationships among end users, manufacturers, government agencies, educational institutions, engineers and others involved in the design, installation and quality control of the driven pile.

We are dedicated to advancing the driven pile

As the only organization solely dedicated to pile-driving contractors, we know that you understand the superiority of the driven pile in most applications. We are the only association addressing the intrusion of non-driven solutions that take away business from the driven-pile contractor. The PDCA understands that to survive in today's competitive marketplace, a pile-driving contractor must strive to stay abreast of the latest trends and technologies in the industry. That is why we maintain close ties with the world's leading suppliers to the industry. It's why we provide a broad range of educational programs for university professors, practicing engineers and contractors. And, it's why more and more contractors, engineers and suppliers are realizing that the PDCA significantly increases their value in the marketplace.

We are a direct link to decision makers

Major manufacturers take an active role supporting the PDCA. At our conferences, we bring together the world's

leading design manufacturers and technical application experts to assist you in advancing the driven pile as a superior product.

The PDCA works closely with the technical community to format design codes and installation practices. We offer seminars throughout the country for engineers and educators on the capabilities and advantages of the driven pile. We also work with agencies, such as the Federal Highway Administration and state DOTs, which develop specifications for highway building and other infrastructure project that use driven piles.

We offer timely, valuable services

The PDCA improves your company's bottom line, as well as your stature in the construction industry, through a variety of programs and services:

Job Referrals

We are the only organization that provides contractor referrals to end users of driven piles. You tell us where you will drive piles and we will refer you to end-users. We also provide referrals to our supplier and technical members.

Peer-to-Peer Opportunities

With more than 100 contractor members, networking opportunities abound at the PDCA. Whether at our Winter Roundtable, our regional seminars or by just picking up the phone, you'll develop long-lasting professional relationships and friendships in the industry.

Annual Membership Directory

As a member, you'll receive PDCA's annual membership directory of our contractor, supplier and technical members. Your company is listed along with the piling solutions you employ and states in which you work. This directory is provided throughout the year to construction users on a complimentary basis.

Educational Conferences and Meetings

The PDCA offers cutting-edge education for contractors, engineers, geotechs and anyone else interested in the driven pile and its applications at two major conferences annually. Members receive discounts on exhibit and registration fees.

- The Winter Roundtable, held each February since 1997, is a nationally recognized conference that brings together leading technical experts, suppliers to the piling industry and contractors. This conference focuses on the key issues faced by pile-driving contractors and features discussions and presentations as well as an extensive exhibit area.
- The Design and Installation of Cost-Efficient Driven Piles Conference (DICEP), held each September since 2000, is a nationally recognized two-day conference that brings together geotechnical and design engineers, college professors and contractors to discuss the latest trends in understanding, analyzing and controlling piling costs.

Industry Development

The PDCA continually strives to expand market share for the driven pile. The PDCA sponsors the College Professors Piling Institute, held at Utah State University in Logan, Utah. Up to 25 professors, from major engineering schools, are invited to participate in an intensive, week-long program that presents them with the latest concepts in driven-pile design, installation and quality control. Some of the leading faculty in the deep foundation field has attended the institute to date. The program supplies the educators with the tools and knowledge to be able to teach their students about the advantages of the driven pile. It promises to have a long-term impact on market share for the driven pile.

Publications and Reference Materials

As a PDCA member, you will receive our quarterly publication, "Piledriver," which presents articles on issues and trends of interest to



"Through its programs and services, PDCA has presented our company with numerous opportunities to continue our business success. It is certainly a cornerstone for growth in a very competitive business."

D.R. JORDAN, PRESIDENT AND
CEO, JORDAN PILE DRIVING, INC.



our industry. As a member, you'll receive discounts on advertising in the magazine.

All PDCA members receive a complimentary copy of the PDCA's codebook, "Recommended Design Specifications for Driven Bearing Piles," now in its third edition. This book covers all required guidelines for driven piles and includes a suggested bid and payment schedule.

The PDCA also sells "The Pile Design Manual," an FHWA manual on the design and construction of driven piles. Order forms are available on the PDCA Web site.

Connect Worldwide at www.piledrivers.org

The PDCA's newly redesigned Web site at www.piledrivers.org lets you research the latest trends in the industry and find direct links to manufacturers, suppliers, engineers and others. PDCA members receive a free listing in our member search area, which is being used by an increasing number of end users to find pile driving contractors and services. Our forums area makes it easy for you to connect with others to discuss issues and problems.

Leadership Opportunities

Membership in the PDCA provides opportunities for recognition and leadership. Positions are available on the PDCA board of directors and various committees that impact the industry. The PDCA recognizes noteworthy contributions to the industry with our "Driven Pile Project of the Year" award, giving opportunities for high profile recognition.

Membership is available to you

There is strength in numbers and we, at the PDCA, need to count your company when telling government agencies, engineers and suppliers that we are interesting in keeping your business viable and in growing market share for the driven pile. We need your ideas and efforts in working together toward a common goal: the use of driven-pile solutions. You can contribute your expertise and assist the Association in developing:

- A greater focus on safety
- The quality of driven pile products
- The formatting of codes and specifications for the driven pile
- Support for a program to help educate students in the use of driven piles

Join today. Be part of a growing and vibrant organization that will play a key role in the future of deep foundations. Support your industry by completing the membership application in this issue. You will immediately begin to enjoy benefits of membership. ▼

MEMBERSHIP APPLICATION

Step 1: Select Membership Type

I wish to apply for the following membership status (check one):

- Contractor** (Annual Gross Sales >\$1 Mil./year: \$725/year).
 (Annual Gross Sales <\$1 Mil./year: \$350/year)

A Contractor Member is defined as a specialty subcontractor or general contractor who commonly installs driven piles for foundations and earth retention systems. Includes one primary membership. Secondary memberships are \$75 each.

- Associate (\$725/year)**

Associate Members of the Association shall consist of firms or corporations engaged in the manufacture and/or supply of equipment, materials, testing or other services to the pile driving industry. Secondary memberships are \$75 each.

- Technical Affiliate (\$95/year)**

Technical Affiliate Members of the Association shall consist of individuals who are involved with the design and installation of driven piles or in teaching the art and science of pile design and installation. They may be employed engineers, architects, government agencies, or universities. Employees of contractors are not eligible to become Technical Affiliate Members. Note: Technical Affiliate Membership category is for individuals only. For a company listing in the directory and on the Web site, you must join as an Associate Member.

- Retired Industry Member (\$50/year)**

A Retired Member shall be defined as any individual who has reached retirement age as defined by U.S. law, who has left active employment and who wishes to remain a member.

I am retiring as a: Contractor Associate Technical Affiliate

Step 2: Demographic Information

Company Name _____ Phone _____
 Your Name _____ Fax _____
 Address _____ Email _____
 City/State/Zip _____ Home Page _____

Step 3. Method of Payment

Attached is my payment of \$_____ for annual dues.

- I understand that dues are due annually on December 31 and, that if I joined PDCA after March 31, I may be entitled to a prorated dues amount for the subsequent year only.

I am making payment in full by

- Check # _____

- Credit Card: MasterCard Visa American Express

Card Number: _____ Expiration Date: _____

Name as it appears on card: _____ Signature: _____

Please send this completed application to: PDCA | P.O. Box 66208, Orange Park, FL 32065
 Phone: (888) 311-PDCA (7322) | Fax: (904) 264-9531 | www.piledrivers.org

Applications Systems

- Aluminum Sheet Piles
- Coatings & Chemicals
- Structural Steel
- Synthetic Material Piles
- Other _____
- Steel Pipe Piles
- Steel Sheet Piles
- Vinyl Sheet Piles
- Other Structural Materials
- Timber Piles/Treated Lumber & Timbers
- Concrete Piles
- Composite Piles
- H-Piles

Equipment

- Air Compressors
- Cranes
- Drill Equipment
- Drive Caps & Inserts
- Hammers
- Hydraulic Power Packs
- Leads & Spotters
- Pumps
- Specialized Rigs & Equipment
- Other _____

Services

- Consulting
- Design
- Freight Brokerage
- Geotechnical
- Marine Drayage
- Surveying
- Testing
- Trucking
- Vibration Monitoring _____
- Other _____

General

- Rental
- Sales
- Other _____
- Other _____

C. Technical Affiliate Only (check all that apply)

- Analysis
- Geotechnical
- Surveying
- Civil & Design
- Materials Testing
- Vibration Monitoring
- Consulting
- Pile Driving Monitoring
- Other _____
- Educational/Association

Step 4. Geographic Areas Where Contracting, Products and Services Available

(All applicants check all that apply)

- | | | | | | | | |
|-------------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|---------------------------------|
| <input type="checkbox"/> All States | <input type="checkbox"/> CT | <input type="checkbox"/> ID | <input type="checkbox"/> MD | <input type="checkbox"/> NE | <input type="checkbox"/> NY | <input type="checkbox"/> SD | <input type="checkbox"/> WI |
| <input type="checkbox"/> AK | <input type="checkbox"/> DC | <input type="checkbox"/> IL | <input type="checkbox"/> ME | <input type="checkbox"/> NC | <input type="checkbox"/> OH | <input type="checkbox"/> TN | <input type="checkbox"/> WV |
| <input type="checkbox"/> AL | <input type="checkbox"/> DE | <input type="checkbox"/> IN | <input type="checkbox"/> MI | <input type="checkbox"/> ND | <input type="checkbox"/> OK | <input type="checkbox"/> TX | <input type="checkbox"/> WY |
| <input type="checkbox"/> AR | <input type="checkbox"/> FL | <input type="checkbox"/> KS | <input type="checkbox"/> MN | <input type="checkbox"/> NH | <input type="checkbox"/> OR | <input type="checkbox"/> UT | <input type="checkbox"/> Canada |
| <input type="checkbox"/> AZ | <input type="checkbox"/> GA | <input type="checkbox"/> KY | <input type="checkbox"/> MO | <input type="checkbox"/> NJ | <input type="checkbox"/> PA | <input type="checkbox"/> VA | <input type="checkbox"/> Mexico |
| <input type="checkbox"/> CA | <input type="checkbox"/> H | <input type="checkbox"/> LA | <input type="checkbox"/> MS | <input type="checkbox"/> NM | <input type="checkbox"/> RI | <input type="checkbox"/> VT | <input type="checkbox"/> Europe |
| <input type="checkbox"/> CO | <input type="checkbox"/> IA | <input type="checkbox"/> MA | <input type="checkbox"/> MT | <input type="checkbox"/> NV | <input type="checkbox"/> SC | <input type="checkbox"/> WA | <input type="checkbox"/> Global |

Step 5. Sponsorship: Who told you about PDCA?

Member Name _____

Step 6. Method of Payment

Attached is my payment of \$_____ for annual dues.

- I understand that dues are due annually on December 31 and, that if I joined PDCA after March 31, I may be entitled to a prorated dues amount for the subsequent year only.

I am making payment in full by

Check # _____

Credit Card: MasterCard Visa American Express

Card Number: _____ Expiration Date: _____

Name as it appears on card: _____ Signature: _____

Please send this completed application to: PDCA | P.O. Box 66208, Orange Park, FL 32065
Phone: (888) 311-PDCA (7322) | Fax: (904) 264-9531 | www.piledrivers.org

2006 PDCA 10th Anniversary Annual Conference

The 2006 PDCA 10th Anniversary Annual Conference was held in San Antonio, Texas March 2-4, 2006 and by all accounts, the event was a huge success. More than 150 PDCA members, spouses, and guests attended the conference at the Hilton Palacio Del Rio on the famous San Antonio Riverwalk.

Attendees were invited to attend presentations on both contracting and engineering topics. The presentations included, Introduction to Wave Equations, Horizontal Pile Driving and Cofferdams, AASHTO Pile Foundation Specifications, Pile Set Up in Foundation Design, and Challenges of Rebuilding New Orleans in the Wake of Hurricane Katrina, and more. One of the highlights of the conference was a presentation by Walter Baumy, from the New Orleans



Experience the Progress.



Liebherr Nenzing Crane Co.
7075 Bennington Street
Houston, TX 77028-5812
Phone: +1 713 636 4050
Fax: +1 713 636 4051
www.liebherr.com

LIEBHERR

The Group

District, U.S. Army Corps of Engineers who offered a first-hand, technical look at the immediate aftermath and resulting devastation brought on by Hurricane Katrina. Mr. Baummy discussed the logistics of coordinating the rebuilding efforts with local, state, and Federal agencies, the efforts required to rebuild the New Orleans' levee systems, and to get New Orleans back on the road to recovery.

The companions program took spouses and guests on a day trip that included stops at the Wildseed Farm in beautiful Texas Hill Country, Historic Fredericksburg for shopping and dining, and Becker Vineyards for a tour and wine tasting.

Another conference highlight was the Annual Dinner. During the dinner, the 2006-2007 board of directors was introduced, the project of the year awards were presented, and the PDCA honored some special individuals, including Past President Randy Dietel and Charles "Chuck" Whiteaker. The conference concluded on Saturday, March 4, with more presentations, a Ladies Tea Breakfast, the PDCA Executive Committee Meeting, and the PDCA Board of Directors Meeting. Next year, the PDCA will host its 11th Annual Conference at the Gaylord Opryland in Nashville, Tennessee. The PDCA Education Committee is already making plans for next year's conference and they promise it will be bigger and better than ever before.

The conference was a great success thanks to our members, spouses, and guests who attended and made this event possible. We look forward to seeing you all next year! ▼





* SALES * RENTALS
* SERVICE
* PARTS

**MKT
VULCAN
DAWSON
HAMORTEX**

Vibratory, Air/Steam, Diesel
Threaders, Shackles, Cushion Material, Pile Driving Accessories
Norco, La. 985-764-1194 www.mreco.com

Fortenberry Pipe & Supply Co.
Stocking Distributor for
Superior Piling, Inc.
3942 FM 3080, P.O. Box 1208, Mabank, TX 75147
903-887-5111, FAX 903-887-4358







Jinnings Pile Driving Equipment



- › Equipment Sales
- › Equipment Rentals
- › Parts and Services

- › Hydraulic Piling Hammers
- › BSP SL Models
- › BSP CX Models

- › Side Grip Vibrating Hammers
- › BSP SCV Models
- › Power Sources

- › For more information on products, availability, or pricing, contact us at:
Toll Free: 877-546-6464 | Fax: (260) 447-4363 | E-mail: info@jinnings.com
- › **Jinnings Equipment, LLC** | 4434 Allen Martin Drive | Fort Wayne, IN 46806

www.jinnings.com

Charles "Chuck" Whiteaker Honored at PDCA Annual Conference

During the 2006 PDCA 10th Anniversary Annual Conference in San Antonio, Texas, the PDCA had the distinctive pleasure of honoring Charles "Chuck" Whiteaker during the conference Annual Dinner on Friday night, March 3, 2006. Chuck was recognized before more than 150 of his peers and fellow PDCA members for his contribution, dedication, and commitment to the PDCA over the past 10 years.

Chuck, now retired, but working for Skyline Steel at the time was instrumental in organizing the Pile Driving Contractors Association. Chuck took on the task of generating interest within the pile driving community to form the PDCA, presided over the organizational meetings and developed the organization's corporate foundation, all of which eventually culminated in the formation of the PDCA in 1995 and officially incorporated as an association on Dec. 20, 1995.

Throughout the formation of the PDCA, Chuck remained steadfast and committed to making the vision of the PDCA a reality. Chuck is to be commended for his dedication and commitment to the PDCA, the only association representing the pile driving industry.

Congratulations, Chuck! Your devotion to this organization and industry has earned you the esteemed recognition of your fellow PDCA members. ▼



FERRERAS

The Piling Cutter Tool

eliminates shimming **all cuts created equal**

- Good for round and square piles/posts
- All cuts perfectly level and accurate
- Attaches to any chainsaw
- 6", 8", 12", and custom sizes available

Ferreras Equipment LLC
www.pile-cutter.com PHONE (907) 852-7310

George G. Goble Consulting Engineer, LLC

George G. Goble
 5398 Manhattan Circle, Ste 100
 Boulder, Co 80303
 goble@bridgetest.com
 Telephone (303)-494-0702

Driven Pile Design
 Value Engineering using driven piles
 Pile driving problems



SUN PILEDRIVING EQUIPMENT



OFFICIAL DEALER OF **JUNTTAN**
PRODUCTS IN THE SOUTH EASTERN USA



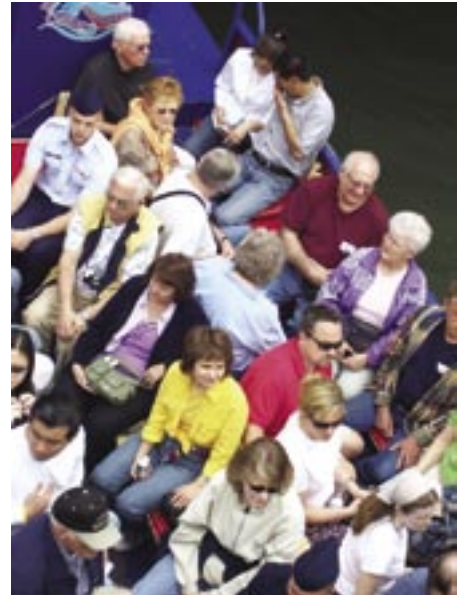
SUN PILEDRIVING EQUIPMENT AND
JUNTTAN MAKING PROGRESS
ONE PILE AT A TIME.



**We Have Rigs
Available In Stock
For Immediate
Delivery!!!**

**Sun Piledriving Equipment
35322 Bayard Rd.
Frankford, DE 19945
Phone: 302-539-7187
Fax: 302-539-4443
Website: www.spe-usa.net
Email: info@spe-usa.net**





James J. Healey
 Director Marketing & Technology
 Phone: 412-227-2264
 Fax: 412-227-2328



Florence, SC Plant
 Contact: Koritta Poston
 Phone: 843-669-8231
 Fax: 843-667-6823


Gainesville, FL Plant
 Penny Salisbury - Plant Mgr.
 Phone: 352-376-5144
 Fax: 352-371-4657



Municon Consultants
 Vibration Monitoring, Construction Instrumentation, Photo Surveys

Vibration Monitoring, Settlement Platforms,
 Inclinator, Piezometer & Tiltmeter Systems.
Remote Reading for Economical Long Term Monitoring

1300 22nd Street, Suite A, San Francisco CA 94107
 Phone 415-641-2570 Fax. 415-282-4097



Phone (904) 823-8817
 Fax (904) 823-9687

ED WATERS & SONS CONTRACTING CO., INC.
 GENERAL CONTRACTORS

*Specializing in Pile Driving, Steel Sheet Piling
 and Marine Structures*

3375 AGRICULTURAL CENTER DRIVE
 ST. AUGUSTINE, FL 32092



COLLINS AIR HAMMERS
 New Patented Design Outdrives
 Heavier Hammers

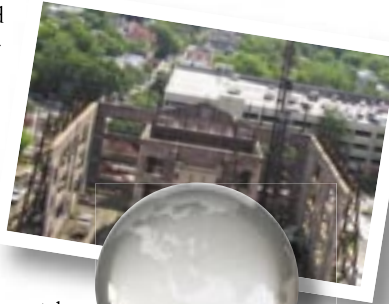
800# and 150# high stroke air hammers
 allow the fastest driving of the
 heaviest vinyl and composite sheet
 piling + light steel and aluminum sheets
 + pipe piling + wood piling to 12"

COLLINS COMPANY, Since 1953
Toll Free: 888-300-0100
Cell: 360-708-5320
Email: collins@whidbey.net
 www.collinspilehammers.com
 www.vinylsheetpiling.com

And the winner is...

CONGRATULATIONS to WPC Engineering and Ed Hajduk, winner of an *InstanTel Innovation Award*. The 1920's Charleston High School building was renovated into the new home of the Medical University of South Carolina's College of Health Professions Complex. In addition, an adjacent building for the complex and a parking garage were also constructed. The project was unique, as it required the existing historic brick façade of the high school to be preserved and incorporated into the new development.

"Given the concerns that pile driving vibrations might damage the brick walls or disrupt nearby sensitive medical equipment, extensive monitoring was required," said WPC President Reg Christopher, "WPC's monitoring plan included pre-condition surveys of the adjacent buildings and the existing brick façade, monitoring of existing cracks noted during the survey, vibration



measurements, pile installation monitoring, and a test pile program. At the end of the project, 547 piles were driven in and around the existing brick walls and our monitoring showed no damage to the existing brick or surrounding buildings."

"InstanTel® MiniMate Plus® vibration monitors are ideal for monitoring ground vibrations from pile driving. They are lightweight and simple to use—setup the geophone, turn on the monitor, and hit the "Start Monitoring" button. It is just that easy. The straightforward 1-2-3 process, along with the small size, allowed us to have just one engineering technician monitor vibrations and the driven pile installation, saving the project money while collecting valuable data."

—Edward Hajduk, PE, Senior Geotechnical Engineer, WPC Engineering

Why not put InstanTel Vibration Monitors to work for you? Contact InstanTel or visit our website to locate the authorized dealer closest to you.



Certified to the ISO 9001 Quality Standard • T: (613) 592-4642 • F: (613) 592-4296 • E: sales@instanTel.com
www.instanTel.com

©2006 InstanTel, a Division of VeriChip Corporation

JD
FIELDS
& Company, Inc.

Mailing - P.O. Box 218424,
Houston, TX 77079

Physical - 15995 N. Barkers Landing,
Suite 230 Houston, TX 77079

Sales and Rentals Steel sheet Piling

Hot Rolled Steel Sheet Piling to Steel
Grade A572 Gr 50
PZ 22 PZ 27, PZ 35, PZ 40

Cold Formed Steel Sheet Piling to Steel
Grade A572 Gr 50
Lightweight, Intermediate
and Heavy

Stockers of Carbon Steel Pipe

Astm A 252 for Pipe Pile Made to
Length on Request

Full Range of Astm A 53 and
API 5L Welded and Seamless Pipe
Sizes 2" to 48" all wall
thicknesses and Sizes
Grades B X42,X56,X60,X65

Additional Services and Products

Tie Rods, Walers, Coating, Anchor Bolts
Pile Tips and Shoes & Splicers

Stockers of H-Pile

Steel Grade A572 GR 50
HP 14 x 73,89,117
HP 12 x 53,63,74
HP 10 x 42,57
HP 8 x 36

• Stockers and Suppliers for the Pile driving Industry

Houston, TX
Ph 281 558 7199
Fax 281 870 9918

Chicago, Il
Ph 708 333 5511
Fax 708 333 5512

Brea, Ca
Ph 714 257 2005
Fax 714 257 2015

Denver, Co.
Ph 303 331 6190
Fax 303 331 6191

New Orleans, LA
Ph 985 234 4567
Fax 985 234 4572

Tulsa, Ok
Ph 918 459 4638
Fax 918 459 4636

Dallas, TX
Ph 972 869 3794
Fax 972 869 3861

PDCA New Member List

We would like to welcome the following new members. Please visit the PDCA Web site at www.piledrivers.org and click on Member Search for complete contact information on all members.

NEW CONTRACTOR MEMBERS

Carolina Marine

Contact: Stewart Weaver
Conway, SC
Pile Driving, Marine

Coastal Pile Driving

Chantilly, VA
Pile Driving Contractor

Davis & Brown Construction, Inc.

Contact: Diana Hunten
Livingston, TX
Bridge Building, Bulkheads, Pile Driving, Dredging, Drilling for Pipe Pile

Ed Nix Company

Contact: Christopher G. Nix
Hilton Head, SC
Bridge Building, Bulkheads, Earth Retention, General Contracting, Pile Driving

Intercoastal Diving, Inc.

Contact: Stanley Budd
Wilmington, NC
Pile Driving, Marine

J.H. Maxymillian, Inc.

Contact: James H. Maxymillian
Pittsfield, MA
Bridge Building, Deep Excavation, Earth Retention, General Contracting, Highway & Heavy Civil, Pile Driving

K & S Piling Company

Contact: Joseph Szypula
Grosse Ile, MI
Bridge Building, Earth Retention, Marine, Pile Driving

L.G. Barcus and Sons, Inc.

Contact: David Grossman
Kansas City, KS
Pile Driving, Highway & Heavy Civil

Marion & Moultrie Dockbuilders, Inc.

Contact: Martin Johnson
Duncan, SC
Bulkheads, Docks & Wharves, Marine, Pile Driving

Midwest Foundation Corp.

Contact: James Gilles
Tremont, IL
Bridge Building, Bulkheads, Deep Excavation, Docks & Wharves, Earth Retention, General Contracting, Highway & Heavy Civil, Marine, Pile Driving

Panama Dock Builders

Contact: Arthur Serio
Bocas Del Toro, Panama
Pile Driving, Marine, Docks & Wharves, Bulkheads

Precon Marine

Contact: Matthew Miller
Chesapeake, VA
Bridge Building, Bulkheads, Docks & Wharves General Contracting, Highway & Heavy Civil, Marine, Pile Driving

S.E. Cline Construction, Inc.

Contact: C.M. "Hap" Cameron Jr.
Palm Coast, FL
Pile Driving Contractor

NEW TECHNICAL MEMBERS

Geosciences Testing and Research, Inc.

Contact: Leo Hart
N. Chelmsford, MA
Civil & Design, Consulting, Geotechnical, Pile Driving Monitoring, Vibration Monitoring

Geosciences Testing and Research, Inc.

Contact: Les Chernauskas
N. Chelmsford, MA
Civil & Design, Consulting, Geotechnical, Pile Driving Monitoring, Vibration Monitoring

NEW ASSOCIATE MEMBERS

Pearson Pilings LLC

Contact: Mark E. Pearson
Fall River, MA
Composite Piles

Sunbelt Rentals Pile Driving Equipment

Contact: Sam Glova
Sterling, VA
Rental, Sales and Service of Foundation Equipment. Diesel/Air/ Hydraulic Impact Hammers, Drills and Attachments, Fixed and Swinging Lead Systems, Hydraulic Vibratory Driver/ Extractors with Complete Ac, hyd. concrete pile cutters

No order too big or too small.....SERVICE is our motto.

PPI

Piling Products, Inc.

945 Center Street
Green Cove Springs, FL 32043
(904) 287-8000
Fax (904) 529-7757

Rental & Sales Steel Sheet Piling • Sales & Rental of
"H" Bearing Piles • Rental of Hammer/Extractors

www.pilingproducts.com



SELECTION FOR PRODUCTION

- Diesel
- Vibro
- Air • Steam



206/762-3550 pacoequip.com 800/878-8379

- Pileco
- HPSI
- Delmag
- Vulcan



STADIUMS, BRIDGES OR WALLS

*If driving pile
is your aim,
join our
winning team
to put you
on top
of your game!*

*New Busch Stadium in St. Louis
Edward Kraemer & Sons, Contractor*



1198 Pershall Road
St. Louis, MO 63137

314.869.8600

www.mve-stl.com

A Pile Driver's History Lesson from the Greeks

Submitted by Mohamad Hussein of GRL Engineers

This excerpt is contained in a [relatively] recent book (copyright 1954) by Aubrey De Selincourt and John Marincola (who are the translators) of the

original book by Herodotus titled "The Histories". Herodotus was born around 490 B.C. and wrote this Greek history (prior to the time of about his death in about 420 B.C.)

having traveled the extensively there.

Book 5 of the Histories begins with a statement "The Persians whom Darius had left in Europe under Megabazus command began hostilities against the Greeks on the Hellespont by subduing the Perinthians, who refused to accept Persian domination."

(This could be the Darius who is referred to in the Biblical book of Daniel, as the times mentioned in the notes seem to match the traditional time of just before 500 B.C.)

Darius heard about the hard working of people in Paeonia (in Macedonia) and issued his commander to campaign there.

In section 16 of Book 5 it then continues..."At the news that their towns were in enemy hands, the Paeonian army disintegrated; the men went off on their own and surrendered individually to the Persians. The result of that campaign was that a number of Paeonian tribes – the Siropaeones, the Paeoplae, and others as far as Lake Prasias – were transferred bodily to Asia. The tribes in the neighborhood of Mt Pangaeum and on the lake itself were not subjugated by Megabazus – though he did attempt the conquest of the latter. The houses of these lake dwellers are actually in the water, and stand on platforms supported on long piles and approached from the land by a single narrow bridge. Originally the labor of driving the piles was presumably undertaken by the tribe as a whole, but later they adopted a different method; now the piles are brought from Mt Orbelus and every man drives three piles for each wife he marries – and each has a great many wives." ▼



Protect the Fishery

GUNDERBOOM
Sound Attenuation System (SAS™)

Particulate (Silt) Control System (PCS™) • Design and Consulting Services

In Partnership with Seventy Percent of the Earth

GUNDERBOOM, INC.
210 Hickman Dr.
Sanford, Florida 32771

www.gunderboom.com

Ph: 407.548.2200
888.345.2666 (BOOM)
Fax: 407.548.2230

H.B. Fleming Contracting - Engineering

H.B. Fleming specializes in pile driving, excavation support, cofferdam installation and subaqueous pipelines throughout northern New England.

89 Pleasant Avenue
South Portland, Maine 04106
(207) 799-8514
(207) 799-8538 (fax)
www.hbfleming.com



Calendar of Events

PDCA Announces its 7th Annual Design and Installation of Cost Efficient Piles (DICEP)

This year's program is scheduled to be held in Minneapolis, Minnesota.

This 1 ½ day program is scheduled for Thursday and Friday, September 14 and 15, 2006. Additional information on the schedule, program and dates are forthcoming and will be mailed and posted on the PDCA Web site, www.piledrivers.org.



"Transportation for the Steel Industry"

For rates and availability

1-800-626-2185

Visit us: www.taservices.us

- Mansfield, Tx*
- Midlothian, Tx*
- Petersburg, Va

Direct from a producer...

Wolmanized® Wood Piling

CCA-treated piling for foundation and marine use.
Common sizes in inventory: quick production on larger sizes.

Also available:

- Wolmanized® wood timbers and bulkheading material
- Vinyl sheet piling, round piling, timbers and lumber needs

Carolina Pole Inc.

Division of Cox Industries

Eutawville, SC / Leland, NC

803-492-7728

andreaecpi@aol.com

www.coxwood.com



Advertiser Index

All American Underpinning & Shoring, INC	12	Junttan	19
American Engineering Testing Inc.	12	Kelly Tractor.	5
American Pile Driving Equipment, Inc.	OBC	KOPPERS, INC	38
Birmingham Foundation Solutions	IFC	L.B. Foster Company	IBC
Blakeslee Arpaia Chapman, Inc.	7	LBT Enterprises Ltd	7
Carolina Pole Inc	43	Liebherr Nenzing Crane Co	33
Cecco Trading Inc.	16	MG & B Services, Inc	13
Chaparral	21	Midwest Vibro	18
Collins Company	38	Mississippi River Equipment Co. Inc	34
Conmaco.	18	Mississippi Valley Equipment Co..	41
Drive - Con Inc	17	Municon Consultants	38
Ed Waters & Sons Contracting Co., Inc	38	National Ventures.	27
Ferreras Equipment, LLC.	36	Nucor - Yamato Steel	9
Fortenberry Pipe & Supply Co	34	PACO.	41
Frank's	7	Parker Marine Contracting Corp.	26
George G. Goble Consulting Engineer LLC	36	PDA Engineering Inc	14
GRL Engineers, Inc.	10	Pearson Pilings, LLC.	26
Gunderboom, Inc	42	Pile Dynamics, Inc	27
GZA GeoEnvironmental, Inc.	14	Pileco, Inc	3
HB Flemming	42	PilePro, LLC.	22,23
Herbert F. Darling Inc	10	Piling Products, Inc.	40
InstanTel	39	Shoreline Steel Inc.	26
International Construction Services, Inc.	44	Sun Piledriving Equipment, LLC	37
JD Fields & Company, Inc	39	TA Services, Inc	43
Jinnings Equipment	35	Timber Piling Council	27

ICSI

LIGHTWEIGHT

ARCHWEB

LIGHT Z-PILING

HEAVY Z-PILING

Authorized Distributor for CMRM Steel Dynamics, Inc.

We have PZ-22, PZ-27, PZ-35, and PZ-40 and Equivalents!!

NEW AND USED, FOR SALE OR FOR RENT

Lightweight Piling, Waterloo Sheet Piling, H-bearing Pile, Structural Sections, Piling Accessories, and Coating

CALL NOW!

International Construction Services, Inc.
Corporate Headquarters, P.O. Box 15598
Pittsburgh, PA 15244-0598
Ph: (888) 593-1600 or (412) 788-6430
Fax: (412) 788-9180 • E-mail: icspiling@adelphia.net

NY / NJ
(570) 504-5880

Chicago, IL
(815) 609-9527

Sacramento, CA
(916) 989-6720

LB Foster Drives Today's Foundation Solutions

- **Engineered Piling Solutions**
Open Cell and Combi-Wall
- **New Domestic Sheet Piling**
Wider, Lighter, Stronger Chaparral PZC™ Series
12, 13, 14, 17, 18, 19
Traditional Sections
PZ 22RU, 27RU, 35 and PZ 40
- **New Foreign Sheet Piling**
Advantageous Strength-to-Weight Ratio Hoesch Series
- **H Piling**
- **Pipe Piling**
- **Flat Web Sheet Pile**
PS 27.5 and PS 31

Size Matters



<http://www.apevibro.com>
<http://www.jandm-usa.com>
(800) 248-8498



GUARANTEED
Cost Effective SIZE
Most Efficient SIZE
Not Over SIZE
Not Under SIZE
Low Headroom SIZE
Low Velocity SIZE
Most Flexible SIZE
Ultra Reliable SIZE
Most Powerful SIZE
Service for Every SIZE

Only APE/J&M has the Right Size for Every Job

The fusion of APE and J&M has created the broadest foundation equipment product line, with the most models, of any other company in the industry. Now there is no need to settle for piling equipment that is "close enough" when APE/J&M can supply the correct size for your job, regardless of how big or small.

The most sizes of:

**HYDRAULIC HAMMERS, VIBRATORY DRIVERS,
DIESEL HAMMERS, EARTH AUGERS,
PILING ACCESSORIES**