



Join Us... April 8, 2014

2013 – 2014 Officers

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Date	Location
Tuesday, April 8th	Zio Fraedo's Restaurant 611 Gregory Lane, Pleasant Hill, CA. (925) 933-9091
Time: No Host Bar 5:30 pm • Dinner 6:30 pm • Program 7:15 pm	
Cost: \$15 NACE members, \$25 non-members \$10 students and retirees	
<i>Please RSVP by Thursday, April 3rd by email to Michelle Anderson at mlanderson@corrpro.com, or by phone at (510) 381-1414.</i>	
<i>To insure affordable gatherings, please plan to pay the dinner fee when you attend the no-host bar portion of our program.</i>	
<i>Cancellation deadline is Friday, April 4th. <u>No shows will be billed!</u></i>	
Meeting Location / Directions: Please see attachment	

The New Bay Bridge – Is It Safe?

Yun Chung
Consultant, Retired from Bechtel Corporation

The construction of the new Eastern Span of the Bay Bridge started in 2002 and was to be completed by 2007. The Toll Bridge Program Oversight Committee (TBPOC) has managed the \$6.4 billion new Bay Bridge project since 2005. In March 2013, 32 anchor rods (3-inch x 17 ft, weighing up to 400 pounds each) for two shear keys (major earthquake stabilizers) on Pier E2 of the new Bay Bridge failed within two weeks after pretensioning. All 32 failures occurred in the bottom threads. Yun will explain why they failed due to environmental hydrogen embrittlement (EHE) rather than to internal hydrogen embrittlement (IHE).

This presentation will discuss “a cascade of poor decisions” that resulted in the selection of hot dip galvanized (HDG) high strength steel anchor rods for a “special bridge.” He will also review the July 8, 2013 TBPOC report on the anchor rods and discuss several reasons why it is unacceptable as an engineering report and as a public document. Unsatisfied with the TBPOC report, Yun Chung and Lisa Thomas have written a report with resolutions that can keep the new Bridge safe. He will discuss why KISSC-based-pretension control is not foolproof for the new Bay Bridge. To keep the new Bridge safe, dehumidification of the chambers where the fracture-critical anchor rods are located is essential.

Yun Chung is a private consultant retired in 1995 from Bechtel Corporation. He was a consultant to Anamet Inc. in Hayward, California until recently. While at Bechtel, he provided materials engineering consulting services on materials selection, fracture prevention, ASME/AWS welding procedures, and corrosion control for engineering/construction projects such as power plants, seawater treatment, copper mines, and pipelines. During the 1980's, Yun participated in the Atomic Industrial Forum on bolting issues in nuclear power plants and authored several reports on high strength steel bolt failures

After graduating from Seoul National University in Korea in mechanical engineering, Yun Chung attended the University of California, Berkeley, where he obtained BS/MS degrees in metallurgy.



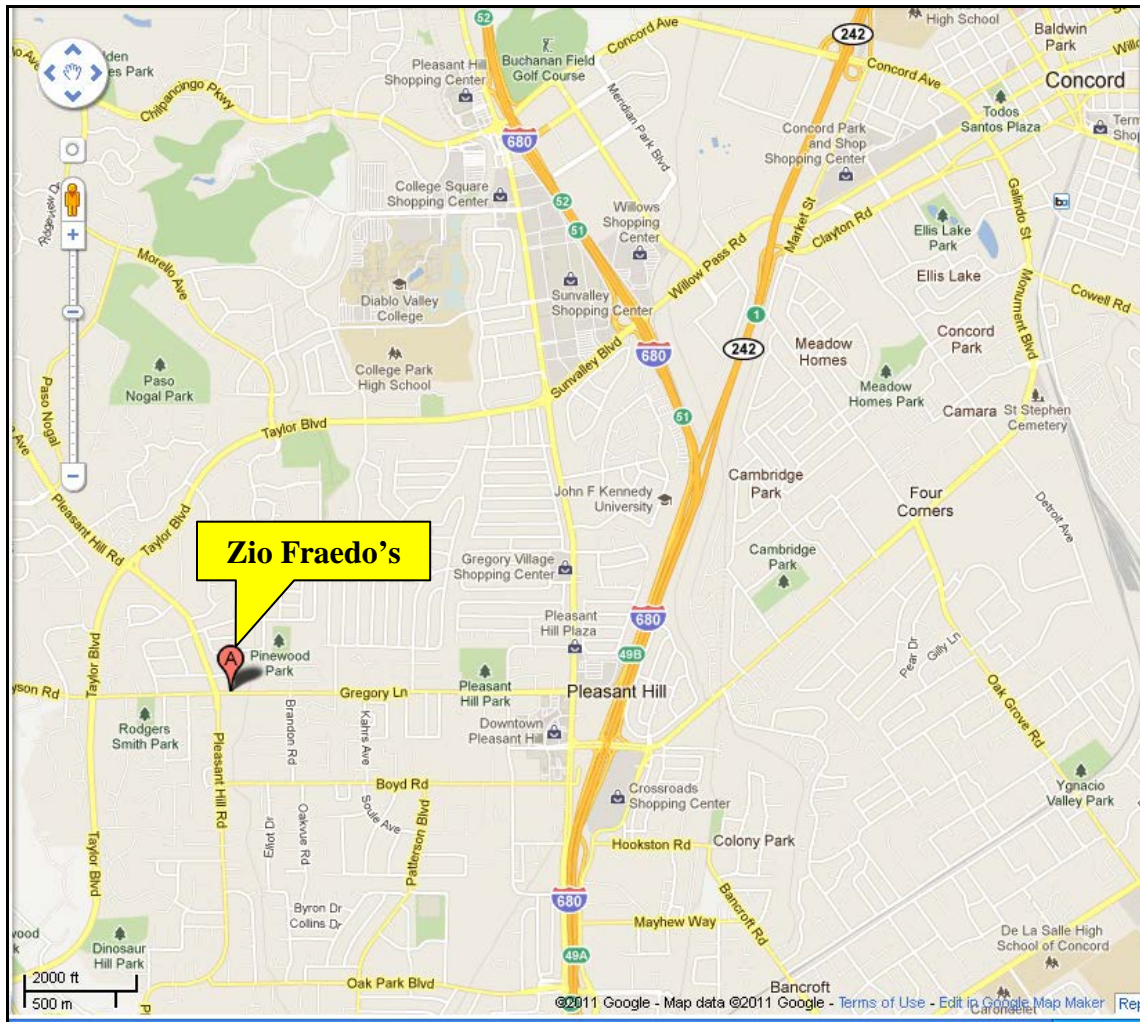
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Zio Fraedo's Restaurant, 611 Gregory Lane, Pleasant Hill, CA. 925-933-9091

Directions

- Take I-680 north to Contra Costa Blvd. Exit 49A in Pleasant Hill and drive north. Pass Monument Blvd. then turn left onto Gregory Lane. Pass Brandon Rd. on left in 1 mile. Look for Zio Fraedo's on the right just before Pleasant Hill Rd.
- Take I-680 south, exit at Sun Valley/Willow Pass Rd. Drive west and turn left on Contra Costa Blvd., then right on Gregory Lane. After 1 mile drive past Brandon Rd. on the left; Zio Fraedo's will be on the right before Pleasant Hill Rd. intersection.