

West Sacramento Office:

2491 Boatman Ave • West Sacramento, CA 95691
(916) 375-8706 • Fax: (916) 375-8709



Main Office: (530) 887-1494
11521 Blocker Drive, Suite 110 • Auburn, CA 95603
West Sacramento Office: (916) 375-8706

Geotechnical • Construction Services • Forensics

File No. 1202.1
October 27, 2010

Mr. Lance Schrey, P.E.
Mark Thomas & Co., Inc.
7300 Folsom Boulevard, Suite 203
Sacramento, CA 95826

Subject: **FOUNDATION REPORT ADDENDUM NO. 1**
Dead Horse Slough Bridge (Widen), Bridge No. 12-0135
03-BUT-32, PM 11.08, CU: 03, EA: 1E4901
Butte County, California

Dear Mr. Schrey,

At your request, Blackburn Consulting (BCI) prepared this Addendum to our September 22, 2010 Foundation Report to revise Table 8: Pile Data Table on page 11 of the report. Mark Thomas and Company, Inc. (MTCO) has revised the design pile tip to elevation 196.0 for lateral loading at Piers 2, 3, and 4. We include an updated page 11 with a revised Pile Data Table for you to replace in the Foundation Report. This does not change the Specified Tip Elevations we recommend in our report.

This Addendum is subject to limitations and recommendations contained within our September 22, 2010 Foundation Report for the project. Please call if you have questions or require additional information.

Sincerely,

BLACKBURN CONSULTING

A handwritten signature in blue ink that reads "W. Eric Nichols".

W. Eric Nichols, C.E.G.
Senior Project Manager

Reviewed by:

A handwritten signature in blue ink that reads "Robert B. Lokteff".

Robert B. Lokteff, C.E., G.E.
Principal Geotechnical Engineer



FOUNDATION REPORT

Dead Horse Slough Bridge (Widen), Bridge No. 12-0135

03-BUT-32, PM 11.08, EA:1E4901

Butte County, California

BCI No. 1202.1

September 22, 2010

Table 8: Pile Data Table

Pile Data Table						
Support	Pile Type	Nominal Resistance (kips)		Design Tip Elevations (ft.)	Specified Tip Elevation (ft.)	Nominal Driving Resistance (kips)
		Compression	Tension			
Abut 1	Class 90 (Alt. X)	150	0	200.0(a)	200.0	150
Pier 2	15" PC/PS Pile Extensions	200	0	188.0(a)(b), 196.0 (c)	188.0	200
Pier 3	15" PC/PS Pile Extensions	180	0	188.0(a)(b), 196.0 (c)	188.0	200
Pier 4	15" PC/PS Pile Extensions	200	0	188.0(a)(b), 196.0 (c)	188.0	200
Abut 5	Class 90 (Alt. X)	150	0	200.0(a)	200.0	150

Notes:

- 1) Design tip elevations for **Abutments** are controlled by (a) Compression.
- 2) Design tip elevations for **Piers** are controlled by (a) Compression (Strength Limit), (b) Scour, and (c) Lateral, respectively. The Design Tip Elevations for lateral loading were determined by MTCO.
- 3) The nominal driving resistance is equal to the required nominal resistance needed to support the factored load plus driving resistance from the penetrated soil layers, if any, which do not contribute to the required nominal resistance due to scour.

9.3 ENGINEERING PARAMETERS

BCI developed generalized engineering parameters for this project based on the following:

- Average unit weight values based on our laboratory tests, local experience and published typical values.
- Average cohesion values based on unconfined compressive strength testing, field pocket penetrometer testing, and published blow count correlations.
- Friction angles based on published blow count correlations.
- Modulus and E₅₀ strain values for lateral pile analysis obtained from the July 2004 LPILE Plus 5.0 Technical Manual for appropriate soil type and consistency.
- Engineering experience and judgment.
- BCI used a ground water elevation of 229.0 ft for design.