

C. Y. GEOTECH, INC.

Engineering Geology and Geotechnical Engineering

21430 Strathern Street, Unit O, Canoga Park, CA 91304
Tel: (818) 888-1499 Fax: (818) 888-1498

September 5, 2006

P. N. CYG-06-4508

Mr. Vladi Tomalevski
1514 17th Street
Santa Monica, California 90404

Subject: Response to City of Santa Monica Review Sheet Dated August 31, 2006
Proposed Five Unit Condominium, Lot S, Block 136, Santa Monica Tract,
1327 Euclid Street, Santa Monica, California

References: C.Y. Geotech, Inc., May 10, 2006, Geotechnical Engineering Investigation,
Proposed Five Unit Condominium, Lot S, Block 136, Santa Monica Tract,
1327 Euclid Street, Santa Monica, California

City of Santa Monica Review Letter Dated August 31, 2006 (CCC Log# 0934)

Dear Vladi,

As requested, C. Y. Geotech (CYG), Inc. has prepared this addendum report in response to the City of Santa Monica review sheet dated August 31, 2006. A copy of the city review sheet is attached at the end of this report. For your convenience, the responses are presented following each review comment.

City Review Comment 1:

The consultant based their slot-cut analysis on the angle of the failure plane being $45+\phi/2$ (a Rankine condition). For the case of a slot-cut with resistance on the sides of the wedge, the Rankine condition may not be the most critical failure surface. The Consultant needs to perform analyses for other angles to demonstrate that either the Rankine is the most critical or some other angle is the most critical. Also, the resultant resisting force on the sides of the wedge should be taken in a direction of the inclined failure plane to be in accordance with the City's geotechnical guidelines

Response to City Review Item 1:

Additional slot cut calculations were performed for the three cases of A/B/C slot cut:

- a. A 13-foot high and 8-foot wide A/B/C slot cut with no surcharge.
- b. A 13-foot high and 8-foot wide A/B/C slot cut with a surcharge of 1000 pounds per linear foot of width.
- c. A 13-foot high and 8-foot wide A/B/C slot cut with a surcharge of 2000 pounds per linear foot of width.

A computer program which can search the most critical slip surface of A/B/C slot cut as used in the calculations. The resultant resisting force on the sides of the wedge was taken in a direction of the inclined failure plane. As shown on Figure 1, no surcharge will be in the wedge which has a slip angle greater than 50 degrees. Therefore, the surcharge of 1000 and 2000 pounds per linear foot of width was applied only to the wedges with a slip angle equal to or flatter than 50 degrees. The results of the analyses are shown Figures 2, 3 and 4. The analyses indicated factors of safety greater than the minimum code requirement for all three cases.

It should be noted that the adequate factor of safety for temporary excavation should not preclude local raveling, local sloughing and minor edge failure. The local raveling, sloughing and edge failure should be properly protected by lagging or raker system as recommended in the referenced CYG report dated May 10, 2006.

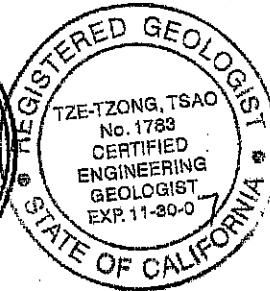
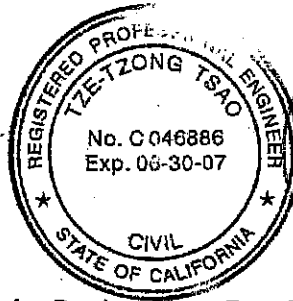
ENDING

We appreciate the opportunity for providing the professional service. If you have any questions regarding this report, please do not hesitate to contact us.

Very truly yours,
C. Y. Geotech, Inc.

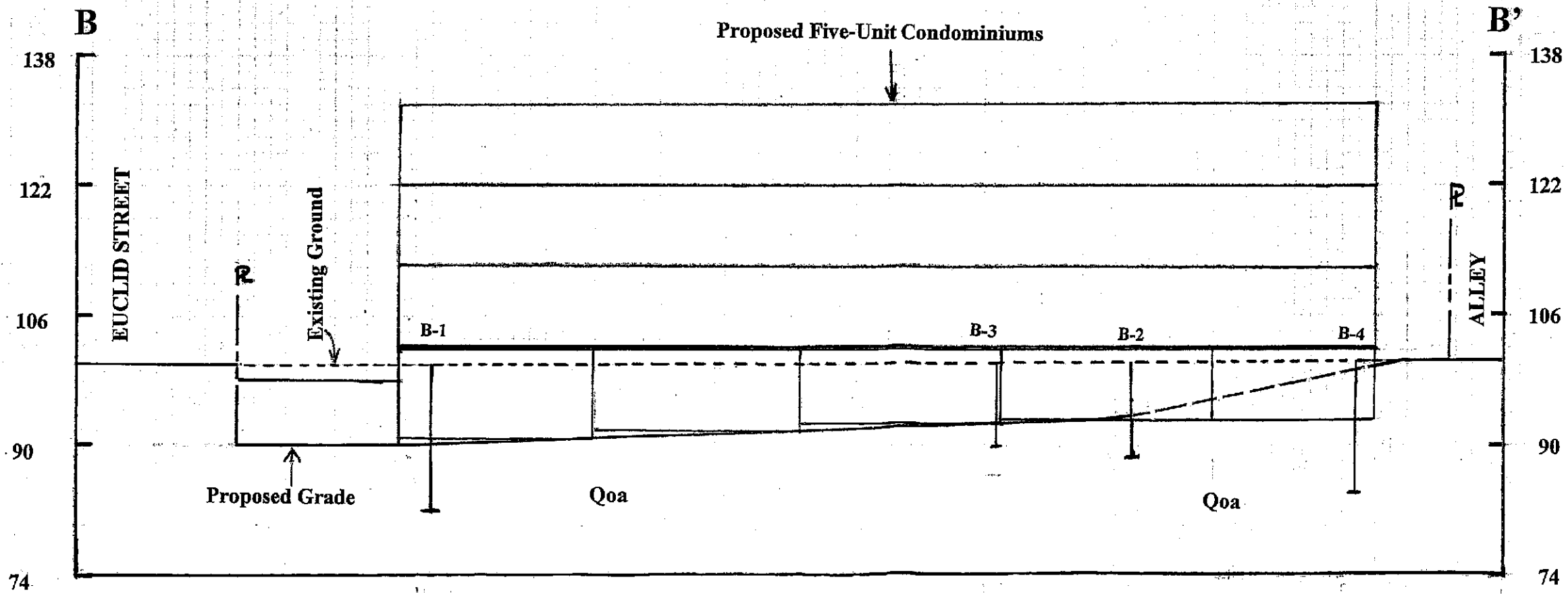
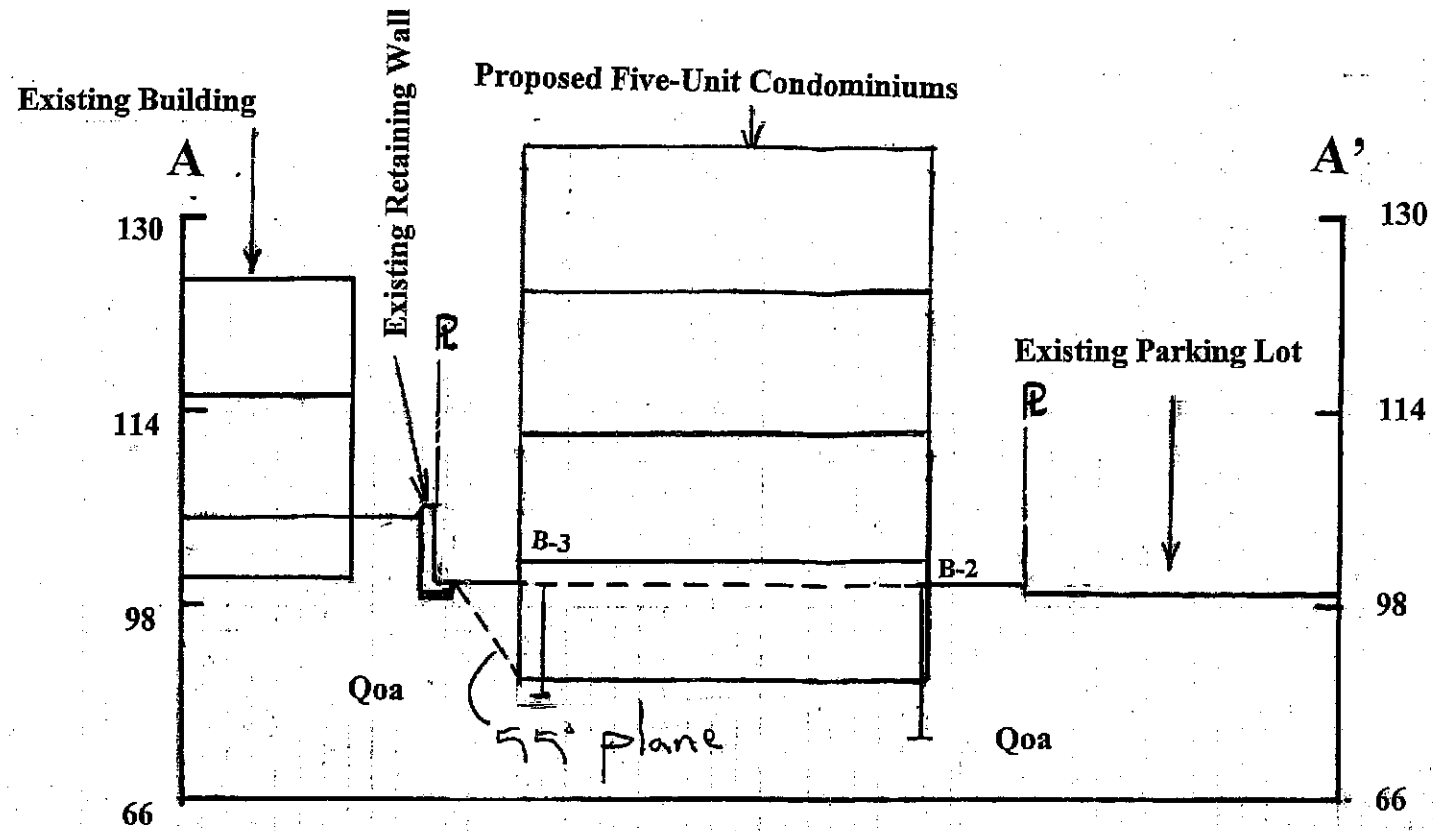


John T. Tsao
RCE 46886/CEG 1783



Encl: City of Santa Monica Review Sheet Dated August 31, 2006

cc: (5) Addressee



C. Y. GEOTECH, INC.

Engineering Geology
and Geotechnical Engineering

Geologic Cross Sections A-A' and B-B'

Figure 1

CYG-06-4508

SLOT CUT CALCULATION

Project : Tomalevski / 1327 Euclid St / No Surcharge

Earth Material : Alluvium

Geometry :

Height of slot cut (H) = 13 ft
 Spacing of slot cut (S) = 8 ft

Surcharge (q): = 0

Soil Parameters :

Unit Weight (γ) = 125 pcf
 Cohesion (C) = 290 pf
 Friction Angle (ϕ) = 31 deg

Calculation :

Critical Dip Angle of Potential Slip Surface (β) = 64degrees
 Length of Slip Surface (L) = $H / \cos(90-\beta)$ = 14.5 ft

Weight of Potential Slip Surface (W)
 $= 0.5 \times H \times H \times \tan(90-\beta) \times \gamma \times S + q \times S$ = 41423 lbs

Sliding Force (SF) = $W \times \sin(\beta) = 55340 \times \sin(6)$ = 37042 lbs

Resisting Force 1 (RF1) = $W \times \cos(\beta) \times \tan(\phi)$ = 10855 lbs

Resisting Force 2 (RF2) = $C \times L \times S = 290 \times 18.3 \times 8$ = 33556 lbs

Resisting Force 3 (RF3) = $C \times 0.5 \times H \times H \times \tan(90-\beta) \times 2$ = 10478 lbs

Factor of Safety (FS) :

$FS = (RF1 + RF2 + RF3) / SF = 1.48 > 1.25$ O. K.

Figure 2

SLOT CUT CALCULATION

Project : Tomalevski / 1327 Euclid St / No Surcharge

Earth Material : Alluvium

Geometry :

Height of slot cut (H) = 13 ft

Spacing of slot cut (S) = 8 ft

Surcharge (q): = 1000 pounds per linear foot of width

Maximum Dip Angle for Surcharge = 60 degrees

Soil Parameters :

Unit Weight (γ) = 125 pcf

Cohesion (C) = 290 pf

Friction Angle (ϕ) = 31 deg

Calculation :

Critical Dip Angle of Potential Slip Surface (β) = 64degrees

Length of Slip Surface (L) = H / Cos(90- β) = 14.5 ft

Weight of Potential Slip Surface (W)

= 0.5 x H x H x Tan(90- β) x γ x S + q x S = 41213 lbs

Sliding Force (SF) = W x Sin(β) = 55340 x Sin(6) = 37042 lbs

Resisting Force 1 (RF1) = W x Cos(β) x Tan(ϕ) = 10855 lbs

Resisting Force 2 (RF2) = C x L x S = 230 x 18.3 x 8 = 33556 lbs

Resisting Force 3 (RF3) = C x 0.5 x H x H x Tan(90- β) x 2 = 10478 lbs

Factor of Safety (FS) :

FS = (RF1 + RF2 + RF3) / SF = 1.48 > 1.25 O. K.

Surcharge is beyond the critical wedge

Figure 3

SLOT CUT CALCULATION

Project : Tomalevski / 1327 Euclid St / No Surcharge

Earth Material : Alluvium

Geometry :

Height of slot cut (H) = 13 ft
 Spacing of slot cut (S) = 8 ft

Surcharge (q): = 2000 pounds per linear foot of width

Maximum Dip Angle for Surcharge = 60 degrees

Soil Parameters :

Unit Weight (γ) = 125 pcf
 Cohesion (C) = 290 pf
 Friction Angle (ϕ) = 31 deg

Calculation :

Critical Dip Angle of Potential Slip Surface (β) = 55degrees
 Length of Slip Surface (L) = $H / \cos(90-\beta)$ = 15.9 ft

Weight of Potential Slip Surface (W)
 $= 0.5 \times H \times H \times \tan(90-\beta) \times \gamma \times S + q \times S$ = 75167 lbs

Sliding Force (SF) = $W \times \sin(\beta) = 55340 \times \sin(6)$ = 61573 lbs

Resisting Force 1 (RF1) = $W \times \cos(\beta) \times \tan(\phi)$ = 25905 lbs

Resisting Force 2 (RF2) = $C \times L \times S = 290 \times 15.9 \times 8$ = 36818 lbs

Resisting Force 3 (RF3) = $C \times 0.5 \times H \times H \times \tan(90-\beta) \times 2$ = 19683 lbs

Factor of Safety (FS) :

$FS = (RF1 + RF2 + RF3) / SF = 1.34 > 1.25$ O. K.

Surcharge is within the critical wedge

Figure 4



925 Broadbeck Drive, Suite 230 * Newbury Park, CA 91320
1015 Nipomo Street, Suite 200 * San Luis Obispo, CA 93401
13261 Spring Valley Pkwy., Suite 205, SVL 7215 * Victorville, CA 92395
www.californiacodecheck.com * e-mail: CACodeCheck@aol.com

* (800) 803-3622
* (805) 541-4490
* (760) 241-3880
* (805) 499-4489 Fax

Date: August 31, 2006
CCC #: SMO-06PC1197
CCC Log # 0934

CITY OF SANTA MONICA - GEOTECHNICAL REVIEW SHEET

Guidelines (version 1.4) for Geotechnical Reports are available on the City of Santa Monica web site: (<http://pen.ci.santa-monica.ca.us/planning/buildingsafety/permitprocess.html>). These guidelines may be updated periodically, please review the web site for the most current guideline.

Project Location: 1327 Euclid Street, Santa Monica, California.
Building & Safety #: 06PC1197
Geotechnical Report: C. Y. Geotech, Inc. (2006), "Geotechnical Engineering Investigation, Proposed Five Unit Condominium, Lot S, Block 136 Santa Monica Tract, 1327 Euclid Street, Santa Monica, California," Project Number CYG-06-4508, May 10, 2006.
Previous Reviews: None

Findings

GEOTECHNICAL REPORT:

- Acceptable as presented.
 Response required.

Remarks

C. Y. Geotech, Inc. (Consultant) prepared a geotechnical investigation report for the proposed five-unit condominium complex with subterranean parking. The City of Santa Monica – Building and Safety Department reviewed the referenced report from a geotechnical perspective for compliance with applicable codes, guidelines, and standards of practice. California Code Check, on behalf of the City, conducted the geotechnical review. Based upon a review of the submitted report, the Consultant shall adequately respond to the following comments prior to approval.

Report Review Comments

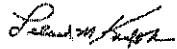
1. The Consultant based their slot-cut analysis on the angle of the failure plane being $45 + \phi/2$ (a Rankine condition). For the case of a slot-cut with resistance on the sides of the wedge, the Rankine condition may not be the most critical failure surface. The Consultant needs to perform analyses for other angles to demonstrate that either the Rankine is the most critical or some other angle is the most critical. Also, the resultant resisting force on the sides of the wedge should be taken in a direction of the inclined failure plane to be in accordance with the City's geotechnical guidelines.

Please submit three (3) copies of written response to the above Report Review Comments to the City of Santa Monica, Building & Safety Department at 1685 Main Street, #111, Santa Monica, CA

90401. If you have any questions regarding this review letter, please contact California Code Check, at (805) 499-4584 or contact the reviewer directly at (805) 987-1689.

Respectfully Submitted,

California Code Check



Leland M. Kraft, Jr.
Geotechnical Engineering Reviewer
GE 484 (exp. 6/30/08)