

ENGINEER'S REPORT

for

ORINDA OAKS RESIDENTIAL DEVELOPMENT  
A PORTION OF THE ORINDA GEOLOGIC HAZARD ABATEMENT DISTRICT  
ORINDA, CALIFORNIA

April 5, 2013

Revised May 23, 2013

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ORINDA OAKS RESIDENTIAL DEVELOPMENT  
A PORTION OF THE ORINDA GEOLOGIC HAZARD ABATEMENT DISTRICT

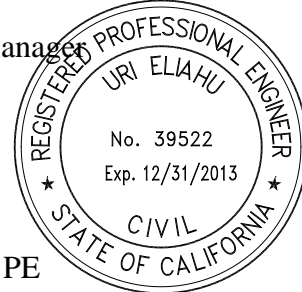
CERTIFICATION OF FILING

This report is presented at the direction of the Orinda Geologic Hazard Abatement District (“GHAD”) Board of Directors. The GHAD is charged with responsibilities related to monitoring and maintenance of drainage facilities and associated improvements within the Orinda GHAD in order to prevent, mitigate, abate and control geologic hazards. The GHAD also levies and collects assessments in order to perform its activities.

The undersigned respectfully submits the enclosed Engineer's Report.

Date:   May 23, 2013   By: Uri Eliahu, Orinda GHAD Manager

 \_\_\_\_\_, PE



I HEREBY CERTIFY that the enclosed Engineer's Report was filed on the \_\_\_\_\_ day of \_\_\_\_\_.

\_\_\_\_\_  
Michele Olsen  
Clerk of the Board  
Orinda Geologic Hazard Abatement District  
Orinda, California

I HEREBY CERTIFY that the enclosed Engineer's Report was approved and confirmed by the GHAD Board on the \_\_\_\_\_ day of \_\_\_\_\_.

\_\_\_\_\_  
Amy Worth  
Chairperson of the Board  
Orinda Geologic Hazard Abatement District  
Orinda, California

APPROVED \_\_\_\_\_

## ENGINEER’S REPORT

for

### ORINDA OAKS RESIDENTIAL DEVELOPMENT A PORTION OF THE ORINDA GEOLOGIC HAZARD ABATEMENT DISTRICT

#### I. BACKGROUND

The Orinda Geologic Hazard Abatement District (“Orinda GHAD”) was formed under the authority of the California Public Resources Code, Division 17, Section 26500 et seq. on March 4, 2008. On October 7, 2008, the Orinda Oaks Residential Development (Subdivision 8101 along with Parcel “B”) (“Project”) was annexed into the Orinda GHAD. The “Plan of Control” referred to within this Engineer’s Report is the First Amended Plan of Control, Orinda Geologic Hazard Abatement District, Orinda Oaks development, revised May 23, 2013.

#### II. GEOLOGIC HAZARD ABATEMENT DISTRICT BOUNDARIES

The boundaries of the land within the Project are shown in the diagrams attached hereto as Exhibit A-1. A written description of the Project is provided in Exhibit 2.

#### III. SERVICE LEVELS

The GHAD provides for activity that is necessary or incidental to the prevention, mitigation, abatement, or control of a geologic hazard including the following activities, as described in the Plan of Control.

1. Oversight of GHAD operations.
2. Work with the County Assessor’s Office, to place the annual assessments for collection on the property tax rolls.
3. Engagement of technical professionals to perform the required monitoring duties as described in the Plan of Control.
4. Performance of GHAD maintenance activities in accordance with the GHAD Plan of Control.
5. Annual report to the GHAD Board of Directors on implementation of the Plan of Control.
6. Preparation of annual GHAD budgets.

The GHAD Board of Directors is responsible for approving the GHAD’s annual budget and Engineer’s Report, and levying the annual assessment. The GHAD’s day-to-day activities, and preparation of the annual budget and Engineer’s Report, are delegated to the GHAD Manager, as specified by the Board of Directors.

IV. DESCRIPTION AND TIMING OF THE IMPROVEMENTS TO BE MAINTAINED BY THE GHAD

The GHAD shall maintain the improvements described in Section 6 of the Plan of Control, provided the acceptance conditions described in Section 7 have been completed by the Project Developer.

V. ASSESSMENT METHOD

The GHAD-maintained improvements set forth in the Plan of Control are distributed within the Project. The Engineer hereby finds that the residential properties within the Orinda Oaks Annexation Area receive approximately equal special benefit from the work and improvements within the GHAD. As a result, the GHAD assessment for the Orinda Oaks Annexation Area is distributed among all owners of parcels.

Single-family residential lots are assessed as one unit and are assessed equally. For the planned public trail, an annual assessment limit was set per lineal foot of trail constructed. Each year the GHAD Board will approve an annual assessment equal to or less than the inflation-adjusted annual assessment limit approved in the Initial Engineer’s Report dated November 18, 2008 (“Initial Engineer’s Report”).

VI. ASSESSMENT LIMIT AND BUDGET

The Initial Engineer’s Report established the maximum assessment and the apportionment of the assessment within the Project portion of the Orinda GHAD as required under Proposition 218. The maximum assessment for detached single-family units has been adjusted annually on June 30 to reflect the percentage change in the San Francisco-Oakland-San Jose Consumer Price Index for All Urban Consumers.

The Initial Engineer’s Report recommended a maximum assessment for the Project \$2,315 per detached single residential unit (Fiscal Year 2008/2009 dollars) and \$0.05 per lineal foot of trail, with allowed Consumer Price Index increases. The Fiscal Year 2012/2013 inflation-adjusted maximum assessment limit for the Project is \$2,465.36 per detached single residential unit and \$0.0532 per lineal foot of trail. The fiscal year for the Orinda GHAD starts on each July 1 and ends on June 30.

The assessments are to be levied following the issuance of a building permit for the assessed residence. To date, no residential building permits have been issued for the Project. No Project-related Orinda GHAD expenses are anticipated during the 2012/2013 Fiscal Year.

The assumptions and estimated expenses provided in the Initial Engineer's Report are listed in Exhibit 3 and have been adjusted for inflation to represent current dollars. The Exhibit 3 amounts do not represent the actual budget for any one year of the GHAD's operation, since assessment of the individual parcels will be based on the issuance of building permits, which will occur over a number of years. The projected expense amounts are expected to be reached over time and these amounts will be inflation-adjusted in the year that the expenses occur.

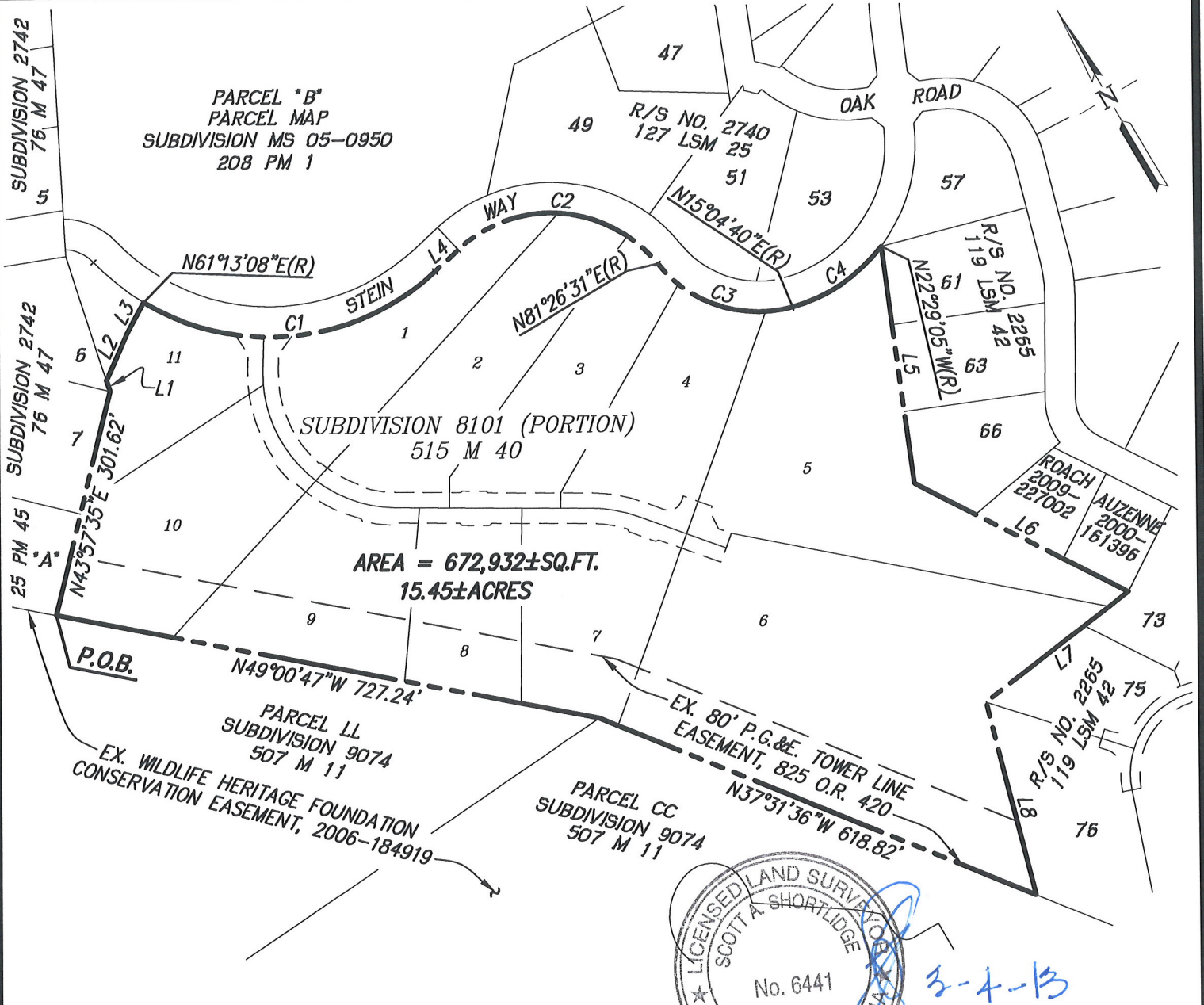
Pursuant to the schedule set forth in Plan of Control Section 7, the GHAD reserve at the time of transfer will be a minimum of \$10,000. The reserve amount will include cash and receivables from the Contra Costa County Tax Collector. Any funds contributed by the developer of the Project shall be provided to the Orinda GHAD prior to its acceptance of the monitoring and maintenance responsibilities within the Project. Funds collected from the levy of assessments during the period that the Project developer is responsible for performing monitoring and maintenance activities may be applied to meet the required funding amount.

**EXHIBIT A-1**

**GHAD BOUNDARY**

9192.000.001  
April 5, 2013  
Revised May 23, 2013





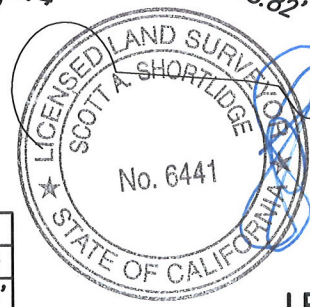
PARCEL "B"  
 PARCEL MAP  
 SUBDIVISION MS 05-0950  
 208 PM 1

SUBDIVISION 8101 (PORTION)  
 515 M 40

AREA = 672,932±SQ.FT.  
 15.45±ACRES

PARCEL LL  
 SUBDIVISION 9074  
 507 M 11  
 EX. WILDLIFE HERITAGE FOUNDATION  
 CONSERVATION EASEMENT, 2006-184919

PARCEL CC  
 SUBDIVISION 9074  
 507 M 11



Line Table		
Line	Bearing	Distance
L1	N11°48'27"E	14.88'
L2	N54°02'44"E	66.88'
L3	N58°33'02"E	46.86'
L4	N77°19'30"E	41.78'
L5	S22°30'00"W	313.48'
L6	S32°50'48"E	316.65'
L7	S82°53'20"W	237.17'
L8	S15°52'01"W	260.59'

Curve Table			
Curve	Radius	Delta	Length
C1	320.00'	73°53'38"	412.70'
C2	180.00'	94°07'01"	295.68'
C3	170.00'	66°21'51"	196.91'
C4	220.00'	37°33'45"	144.23'

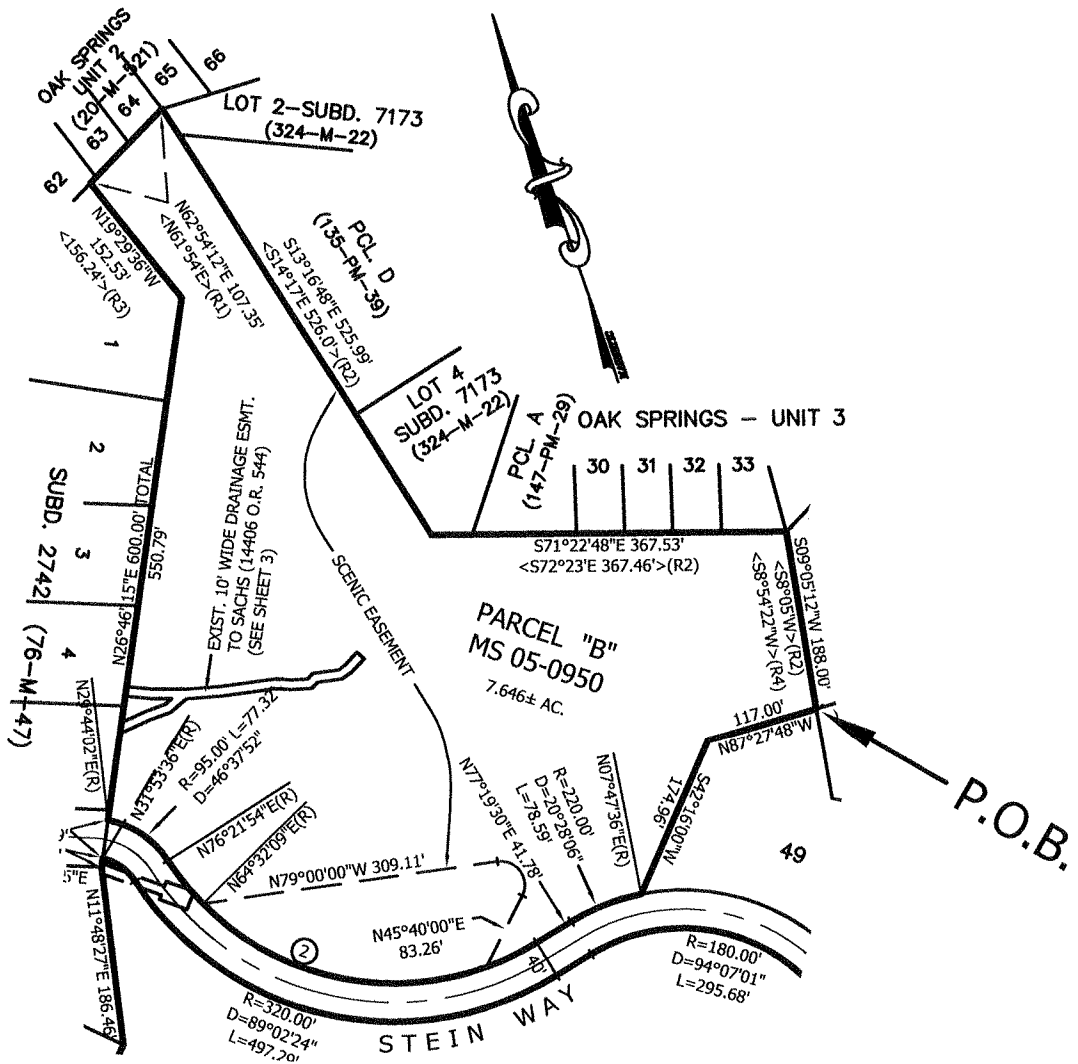
- LEGEND**
- P.O.B. POINT OF BEGINNING
  - (R) RADIAL BEARING
  - SQ.FT. SQUARE FEET
  - P.G.&E. PACIFIC GAS & ELECTRIC COMPANY

**EXHIBIT "A-1"**  
**GEOLOGIC HAZARD ABATEMENT  
 DISTRICT BOUNDARY MAP**  
**SUBDIVISION 8101**  
 CITY OF ORINDA, CONTRA COSTA COUNTY, CALIFORNIA

G:\Job2011\111032\Mapping\Plots\GHAD BDY.dwg

**RJA**  
**RUGGERI-JENSEN-AZAR**  
 ENGINEERS ■ PLANNERS ■ SURVEYORS  
 4690 CHABOT DRIVE, SUITE 200 PLEASANTON, CA 94588  
 PHONE: (925) 227-9100 FAX: (925) 227-9300

SCALE: 1"=200'	DATE: 03-04-13	JOB NO.: 111032
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### CURVE DATA CHART

②  $R=280.00'$   $D=89^{\circ}02'24''$   $L=435.13'$

### EXHIBIT "A-1"

GEOLOGIC HAZARD ABATEMENT  
DISTRICT BOUNDARY MAP

PARCEL 'B' MS 05-0950



**DeBolt Civil Engineering**  
811 San Ramon Valley Boulevard  
Danville, California 94526  
925/837-3780

Date:  
3/25/2008  
Scale:  
1"=200'  
By:  
JED/wl  
Job No.:  
96102

**EXHIBIT 2**

LEGAL DESCRIPTION

9192.000.001  
April 5, 2013  
Revised May 23, 2013

EXHIBIT "2"

*Geologic Hazard Abatement District Boundary*

*Description For*

*Subdivision 8101 Parcel*

**Land Description** of a parcel of land situate in the County of Contra Costa, and State of California; and being all of Lots 1 thru 10, and a portion of Lot 11 as created by that certain map entitled "SUBDIVISION 8101" filed on November 20, 2012 in Book 515 of Maps, at Pages 40, Official Records of said County, and being more particularly described as follows:

**Beginning** at the southwest corner of the above mentioned Lot 10; Thence along the west lines of Lot(s) 10 and 11 for the following two (2) courses: (1) North 43° 57' 35" East - 301.62 feet, and (2) North 11° 48' 27" East - 14.88 feet; Thence crossing Lot 11 for the following two (2) courses: (1) North 54° 02' 44" East - 66.88 feet, and (2) North 58° 33' 02" East - 46.86 feet to a point on the curving north line of Lot 11, same corner being on the south line of Stein Way as described in a Grant Deed to the City of Orinda recorded on November 02, 2007 under document number 2007-0306481-00, Official Records of said County, being a curve to the left from which point the center bears North 61° 13' 08" East; Thence along the south line of Stein Way for the following two (2) courses: (1) in a northeasterly direction 412.70 feet along the arc of said curve to the left, having a radius of 320.00 feet and through a central angle of 73° 53' 38", and (2) North 77° 19' 30" East - 41.78 feet to the southeast corner of the 2007 Stein Way parcel, same corner being on the curving south line of that Stein Way parcel described in the Offer of Dedication – Road Purposes recorded on September 27, 2000 under document number 2000-0209830-00, Official Records of said County; Thence along the 2000 Stein Way right of way and the north lines of Lots 1 thru 5 for the following three courses: (1) in a southeasterly direction 295.68 feet along the arc of said curve to the right, having a radius of 180.00 feet and through a central angle of 94° 07' 01" to the point of reverse curvature, (2) in a southeasterly direction 196.91 feet along the arc of said reverse curve to the left, having a radius of 170.00

feet and through a central angle of 66° 21' 51" to the point of compound curvature, and (3) in a northeasterly direction 144.23 feet along the arc of said compound curve to the left, having a radius of 220.00 feet and through a central angle of 37° 33' 45" to the most northerly corner of Lot 5; Thence along the east lines of Lots 5 and 6 for the following four (4) courses: (1) South 22° 30' 00" West - 313.48 feet, (2) South 32° 50' 48" East - 316.65 feet, (3) South 82° 53' 20" West - 237.17 feet, (4) South 15° 52' 01" West - 260.59 feet to the southeast corner of said Lot 6, same corner being on the northerly line of Parcel CC as created by that certain map entitled "SUBDIVISION 9074 WILDER – PHASE 1" filed on July 22, 2008 in Book 507 of Maps, at Pages 11-60, Official Records of said County; Thence along the south line of Lots 6 thru 11 for the following two (2) courses: (1) North 37° 31' 36" West - 618.82 feet, and (2) North 49° 00' 47" West - 727.24 feet to the **Point of Beginning**.

**Containing** 15.45 Acres of land area, more or less.



Scott Shortlidge, LS 6441



3-4-2013  
Date



City of Orinda

Project: Sub8101  
Parcel Map Check

Mon March 04 08:29:02 2013

Parcel name: GHAD BOUNDARY

North: 2143368.275162 East : 6075326.962238

Line Course: N 43-57-35 E Length: 301.62  
North: 2143585.389670 East : 6075536.332521

Line Course: N 11-48-27 E Length: 14.88  
North: 2143599.954818 East : 6075539.377329

Line Course: N 54-02-44 E Length: 66.88  
North: 2143639.222863 East : 6075593.515624

Line Course: N 58-33-02 E Length: 46.86  
North: 2143663.671882 East : 6075633.491931

Curve Length: 412.70 Radius: 320.00  
Delta: 73-53-38 Tangent: 240.67  
Chord: 384.69 Course: S 65-43-41 E  
Course In: N 61-13-08 E Course Out: S 12-40-30 E  
RP North: 2143817.740603 East : 6075913.960876  
End North: 2143505.538882 East : 6075984.175444

Line Course: N 77-19-30 E Length: 41.78  
North: 2143514.706272 East : 6076024.937281

Curve Length: 295.68 Radius: 180.00  
Delta: 94-07-01 Tangent: 193.42  
Chord: 263.54 Course: S 55-36-59 E  
Course In: S 12-40-30 E Course Out: N 81-26-31 E  
RP North: 2143339.092804 East : 6076064.432976  
End North: 2143365.878868 East : 6076242.428782

Curve Length: 196.91 Radius: 170.00  
Delta: 66-21-51 Tangent: 111.17  
Chord: 186.08 Course: S 41-44-24 E  
Course In: N 81-26-31 E Course Out: S 15-04-40 W  
RP North: 2143391.176817 East : 6076410.535931  
End North: 2143227.029306 East : 6076366.313826

Curve Length: 144.23 Radius: 220.00  
Delta: 37-33-45 Tangent: 74.81  
Chord: 141.66 Course: N 86-17-48 E  
Course In: N 15-04-40 E Course Out: S 22-29-05 E  
RP North: 2143439.455497 East : 6076423.542433  
End North: 2143236.179557 East : 6076507.678588

Line Course: S 22-30-00 W Length: 313.48  
North: 2142946.561802 East : 6076387.714985

Line Course: S 32-50-48 E Length: 316.65  
North: 2142680.536185 East : 6076559.463621

Line Course: S 82-53-20 W Length: 237.17  
North: 2142651.175983 East : 6076324.117945

Line Course: S 15-52-01 W Length: 260.59  
North: 2142400.514669 East : 6076252.871514

Line Course: N 37-31-36 W Length: 618.82  
North: 2142891.282200 East : 6075875.929312

Line Course: N 49-00-47 W Length: 727.24  
North: 2143368.269492 East : 6075326.965615



3-4-13

City of Orinda

Project: Sub8101

Mon March 04 08:29:02 2013

Parcel Map Check

Perimeter: 3995.51 Area: 672,932 sq.ft. 15.45 acres

Mapcheck Closure - (Uses listed courses, radii, and deltas)

Error Closure: 0.006600 Course: S 30-46-34 E

Error North: -0.0056702 East : 0.0033769

Precision 1: 605,377.27

March 25, 2008  
Job No. 96102

**EXHIBIT '2'**  
**Geologic Hazard Abatement District**  
**Boundary Description for**  
**Parcel 'B' – MS 05-0950**

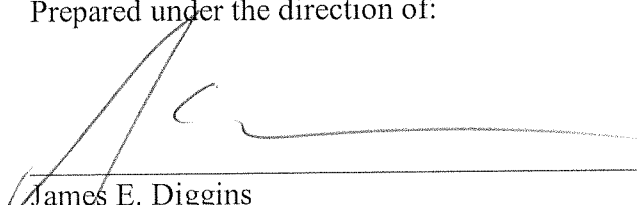
All that certain real property situate in the City of Orinda, County of Contra Costa, State of California, described as follows:

Being a portion of the remainder parcel shown on that certain Record of Survey filed December 8, 2000 in Book 119 of Land Surveyors Maps at Page 42, Contra Costa County Records, further described as follows:

Beginning at the southwest corner of Lot 5 of Subdivision 7173, said corner also being common to Lots 47 and 49 of "Oak Springs – Unit 3" as shown on said map (119 LSM 42); thence leaving said Point of Beginning along the westerly line of said Lot 49, North 87°27'48" West, 117.00 feet, and South 42°16'00" West, 174.96 feet to a point on the northerly line of Stein Way as shown on said map; thence along said northerly line along a non-tangent curve to the left, the center of which bears South 7°47'36" West, having a radius of 220.00 feet, through a central angle of 20°28'06" for an arc length of 78.59 feet; thence South 77°19'30" West, 41.78 feet; thence along a tangent curve to the right, having a radius of 280.00 feet, through a central angle of 89°02'24", for an arc length of 435.13 feet to a point of reverse curvature; thence along a tangent curve to the left, the center of which bears South 76°21'54" West, having a radius of 95.00 feet, through a central angle of 46°37'52" for an arc length of 77.32 feet to a point on the westerly line of Subdivision 2742 as shown on said Record of Survey (119 LSM 42); thence along said westerly subdivision line North 26°46'15" East, 550.79 feet; thence continuing along said westerly line North 19°29'36" West, 152.53 feet to a point on the southerly line of Oak Springs – Unit 2, filed in Book 20 of Maps at Page 521; thence along last said southerly line North 62°54'12" East, 107.35 feet; thence along the southerly boundary of Subdivision 7173 (324 M 22) the following three courses: South 13°16'48" East, 525.99 feet; South 71°22'48" East, 367.53 feet, and South 9°05'12" West, 188.00 feet to said Point of Beginning.

Containing 7.65 acres of land, more or less.

Prepared under the direction of:

  
James E. Diggins  
RCE 27818  
Exp. Date 3/31/2010





**EXHIBIT 3**

**ORINDA GHAD BUDGET – ORINDA OAKS RESIDENTIAL DEVELOPMENT**

9192.000.001  
April 5, 2013  
Revised May 23, 2013

**EXHIBIT 3**  
**Orinda Geologic Hazard Abatement District**  
**Orinda Oaks Residential Development**  
**Budget**

**REVENUES**

Total No. of Single Family Residential Units.....	12
Annual Assessment per Unit (current \$).....	\$ 2,465.36
Annual Assessment per lineal foot of trail (current \$).....	\$ 0.0532

**ESTIMATED ANNUAL EXPENSES IN 2012/2013 DOLLARS**

Annual Report.....	\$ 1,064.95
GHAD Monitoring Program.....	\$ 5,324.76
Subdrain Outfall Maintenance.....	\$ 106.50
Sediment/Debris Removal, Concrete Structures.....	\$ 2,662.38
Slope Stabilization and Erosion Protection.....	\$ 5,324.76
Concrete Lined Ditch Replacement.....	\$ 638.97
Storm Drain Pipe and Infiltration Planter Replacement.....	\$ 905.21
Major Repair (Annualized).....	\$ 5,324.76
Administration (including legal services) & Accounting.....	\$ 3,194.86
City Staff Services (Government to Government).....	\$ 638.97
Memberships and Insurance.....	\$ 112.88
Contingency (10%).....	\$ 2,529.90

SUBTOTAL	\$27,828.91
Reserve	<u>\$ 1,755.41<sup>1</sup></u>
TOTAL	<u>\$29,584.32</u>

<sup>1</sup> Assessment and investment income in excess of the actual annual expenses will be included in the reserve accumulation for the GHAD.