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WAIKOLOA MAUKA, LLC

BEFORE THE LAND USE COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Petition of

DOCKET NO. A06-767

WAIKOLOA MAUKA, LLC

To Amend the Agricultural Land Use District
Boundaries into the Rural Land Use District for
Approximately 731.581 Acres in South Kohala
District, Island of Hawaii, Tax Map Key No. (3)
6-8-02:016 (por.)

**WAIKOLOA MAUKA, LLC'S
WRITTEN DIRECT TESTIMONY OF BERT R. TOBA**

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**WRITTEN DIRECT TESTIMONY OF
BERT R. TOBA**

BACKGROUND QUESTIONS

1. *Please state your name and business address for the record.*

Bert R. Toba
R.M. Towill Corporation
420 Waiakamilo Road, Suite 411
Honolulu, Hawaii 96817

2. *What is your current occupation?*

I am an Engineer in private practice.

3. *Are you a licensed professional engineer?*

Yes. I am licensed to practice in the State of Hawaii.

4. *Do you specialize in a specific area of engineering?*

Yes. My license is in Civil Engineering.

5. *How long have you been an engineer by profession?*

I have been a practicing engineer for over 32 years.

6. *Could you briefly describe your educational background?*

I received a Bachelor of Science degree from the University of Hawaii in 1974.

7. *Did you provide a copy of your curriculum vitae for purposes of this hearing?*

Yes.

8. *Is Petitioner's Exhibit "49" a true and correct copy of your curriculum vitae?*

Yes.

9. *How long have you been with R.M. Towill Corporation?*

Six and a half years.

1 **10. What is your current position with R.M. Towill Corporation?**

2
3 I am the Senior Vice President for the corporation.

4
5 **11. Please describe your duties and responsibilities.**

6
7 I am responsible for the daily operation of the R.M. Towill Corporation.

8
9 **12. What type of work do you perform?**

10
11 My work includes marketing, quality control, personnel management, in addition
12 to overseeing the company's engineering, planning and surveying projects.

13
14 **13. Have you served as a consultant on other residential developments?**

15
16 Yes.

17
18 **14. What were your duties as a consultant on these other projects?**

19
20 I performed infrastructure master planning, infrastructure and site work designs,
21 and construction administration services.

22
23 **15. Have you ever previously qualified and/or testified as an expert witness?**

24
25 Yes.

26
27 **16. If yes, on how many occasions have you qualified to testify as an expert?**

28
29 Seven.

30
31 **17. If yes, on how many occasions have you actually testified under oath as an
32 expert witness in front of an administrative or judicial body?**

33
34 Six:

35
36 1. Date: Mid to late 1970's
37 Action: Land Use Boundary Amendment
38 State Land Use Commission
39 Property located in Kihei, Maui, Hawaii
40 Attorney: Meyer Ueoka (Ueoka & Luna)
41 Client: Tony Hashimoto
42

Written Direct Testimony of Bert R. Toba

- 1 2. Date: 1991
2 Action: State Special Use Permit Application
3 Maui Planning Commission
4 Contested Case Hearing
5 Property located in Haiku, Maui Hawaii
6 Hearings Officer: Stanley Okamoto
7 Client: Jehovah's Witness, Haiku, Hawaii
8
9 3. Date: 1998
10 Action: Land Use District Boundary Amendment
11 State Land Use Commission
12 Makena Resort
13 Property located in Makena, Maui, Hawaii
14 Attorney: Eric Maehara (Foley and Maehara)
15 Client: Makena Resort Corp.
16
17 4. Date: Late 1990's
18 Action: Special Management Area Permit Application
19 Maui Planning Commission
20 Contested Case Hearing
21 Maui Ocean Resorts
22 Property located in Kaanapali, Lahaina, Maui, Hawaii
23 Hearings Officer: Joel August
24 Attorney: B. Martin Luna (Carlsmith Ball, LLP)
25 Client: AMFAC Properties
26
27 5. Date: August 2004
28 Action: CIVIL NO. 4-1-0974-05 (VSM)
29 First Circuit Court, State of Hawaii
30 Craig Smallwood, et al. vs. City and County of Honolulu,
31 et al.
32 Pertaining to the Ocean Pointe Retaining Wall and Papipi
33 Road Drainage
34 Attorney: Randall Ishikawa and Lane Ishida (Oshima Chun Fong &
35 Chung, LLP)
36 Client: Haseko Hawaii, Inc.
37
38 6. Date: March 3, 2005
39 Action: Land Use District Boundary Amendment
40 State Land Use Commission
41 Maui Business Park, Phase II Incremental Redistricting
42 Property located in Kahului, Maui, Hawaii
43 Attorney: Benjamin M. Matsubara and Curtis T. Tabata (Matsubara,
44 Lee & Kotake)
45 Client: A&B Properties, Inc.
46

1 **WAIKOLOA HIGHLANDS**

2
3 **18. *Are you familiar with the petition area and the existing characteristics of this***
4 ***area located in the South Kohala District on the island of Hawaii?***

5
6 Yes, I am. The project area is undeveloped and covered with moderate
7 vegetation. The terrain is hilly with several gullies running through the property.
8

9 **19. *Are you familiar with Waikoloa Mauka, LLC's ("Petitioner") Waikoloa***
10 ***Highlands ("Project")?***

11
12 Yes, I am. I have been involved with the design of phases 1 and 2 of the proposed
13 subdivision of the property.
14

15 **20. *How did you familiarize yourself with the Project?***

16
17 I conducted several site visits and reviewed plans, studies and correspondence
18 from a subdivision project which had been proposed by the Waikoloa Land
19 Company on the property. Waikoloa Land Company was a former owner of the
20 property.
21

22
23 **ANALYSIS**

24
25 **21. *Could you please describe your involvement in the Project?***

26
27 I am the R.M. Towill Corporation principal in charge of the Project. I have
28 planners, surveyors and engineers working on the Project under my overall
29 supervision.
30

31 **22. *Did you prepare any reports in conjunction with the Environmental Impact***
32 ***Statement (EIS) for the Project?***

33
34 Yes. Those reports include the "Floodplain Limits and Flood Control Plan for the
35 Waikoloa Highlands Subdivision, September 2006"; Drainage Report for the
36 Waikoloa Highlands Subdivision, Phase 1, September 2006"; and "Waikoloa
37 Highlands Water Distribution System, Waikoloa Highlands Subdivision,
38 September 2006".
39

40 **23. *Were these reports conducted by you or under your supervision?***

41
42 They were prepared by R.M. Towill Corporation engineers working under my
43 supervision.
44

1 **24. Are Petitioner's Exhibits "50", "51" and "52" true and correct copies of your**
2 **reports?**

3
4 Yes.

5
6 **25. Could you describe the methodology used to conduct your reports of the**
7 **infrastructure requirements of the Project?**

8
9 For the flood and drainage studies, hydrologic calculations were prepared using
10 the regression equation and a 100-year storm event for drainage basins 100 acres
11 and larger. The rational method and 10-year and 50-year storm events were used
12 for local subdivision drainage with drainage basins of smaller than 100 acres.
13 Hydraulic analyses were then performed. Existing stream floodway limits were
14 determined using the U.S. Army Corp of Engineers, Hydrologic Engineering
15 Center - River Analysis System (HEC-RAS) computer program. This program
16 was also used for the sizing of proposed new drainage channels within the project.
17 The Haestad Culvert Master computer programs were used to size roadway
18 culverts.

19
20 Water consumption and fire flow demands were determined in accordance with
21 the Department of Water Supply and West Hawaii Water Company planning and
22 design standards. The water distribution pipelines were then sized using the
23 Watercad computer program.

24
25 **26. Is the methodology you employed consistent with generally accepted industry**
26 **standards?**

27
28 Yes.

29
30 The methodology used in preparing the flood and drainage studies are consistent
31 with the County of Hawaii Drainage Standards.

32
33 The methodology used in preparing the water study is consistent with Department
34 of Water Supply and Waikoloa Water Company planning and design standards.

35
36 **27. Are there any regulatory or advisory bodies that publish guidelines in an**
37 **attempt to summarize these generally accepted practices?**

38
39 Yes.

40
41 The U.S. Army Corp of Engineers and County of Hawaii Drainage Standards are
42 accepted standards normally followed in preparing drainage studies in the County
43 of Hawaii.

1 The West Hawaii Water Company Standards, and the Hawaii County, Department
2 of Water Supply, 2002 Water System Standards, are accepted standards normally
3 used for water system planning and design in the Waikoloa area.
4

5 **28. *If so, is your methodology consistent with these guidelines? If not, why?***

6
7 Yes.

8
9 **29. *Have you reviewed the plans for the Project site?***

10
11 Yes.

12
13 **30. *Have you reviewed the functional drainage and water distribution plans for the***
14 ***Waikoloa District?***

15
16 Yes. The following were reviewed:

- 17 • County approved drainage studies for the project vicinity, including the
18 “Floodway Limits and Flood Control Plan for the Highlands Golf Estates
19 at Waikoloa, December 1992” report; and
- 20 • The “Waikoloa Water Master Plans, February 1991” was reviewed.

21
22 **31. *Is the Project consistent with the functional drainage and water distribution***
23 ***plans for the Waikoloa District?***

24
25 Yes.

26
27 **32. *What level of flood will the drainage infrastructure be capable of withstanding?***

28
29 The Project’s drainage infrastructure has been designed to safely pass the 100-
30 year off-site storm flows through the Project property. The internal collection
31 system is sized to handle at a minimum, a 10-year storm flow. A map indicating
32 flood boundaries has been included as Exhibit “53”.
33

34 **33. *There was previously mention of drainage systems being implemented on a***
35 ***portion of land that was subsequently removed from the petition area. How will***
36 ***this affect the drainage systems for the Project and the area as a whole?***

37
38 That portion of land, which is adjacent to the northern limits of the Project, just
39 southeast of the Waikoloa Road/Pua Melia Road intersection, was set aside during
40 the early planning phase of the Phase 1 subdivision for a possible drainage storage
41 basin, should one be needed. Later, during the design process, our engineers
42 determined that a drainage storage basin would not be needed. Instead, 35
43 drywells, each with a capacity of 6 cfs could be installed within the street
44 shoulders to intercept the development runoff and ensure that the 71 cfs of
45 increased runoff that would be generated by the development would not leave the
46 Project site.

1 **34. *What is the proposed system for irrigation and household water use?***
2

3 Potable water service will be provided to each of the lots for both irrigation and
4 household water uses. A map of our water distribution plan has been included as
5 Exhibit “54”.
6

7 **35. *What are the allocations for each type of use?***
8

9 Based on the “Waikoloa Water Master Plan, February 1991” report (Appended to
10 EIS), 1,000 gallons per day (GPD) (including for landscape irrigation) is allotted
11 per lot. Of that total, the “Highlands Golf Estate Landscape Irrigation Water
12 Study, August 2005” by Hawaii Design Associates, Inc. recommends that 600
13 GPD be allocated for landscape irrigation use. That leaves 400 GPD for
14 household water uses.
15

16 **36. *In your opinion, are these allocations sufficient, deficient or excessive?***
17

18 It should be sufficient. The Hawaii County Department of Water Supply planning
19 and design standards designates an average daily water consumption rate of 400
20 GPD for single-family through multi-family uses. The 400 GPD average daily
21 water consumption, if added to the 600 GPD recommended irrigation demand,
22 results in a total average daily water demand of 1,000 GPD for each lot. That
23 total water demand is consistent with the water allocation to be provided to this
24 Project by the “Waikoloa Water Master Plan”.
25

26 **37. *How much water storage capacity will the Project have?***
27

28 The Project will require 0.50 million gallons (MG) of storage, of which, 0.11 MG
29 is provided by an existing water reservoir (1210’ service zone). This is consistent
30 with the “Waikoloa Water Master Plan”.
31

32 **38. *Will this be sufficient to support the proposed increase in population that the***
33 ***Project will have on the area?***
34

35 Yes. The required storage capacity will be added (constructed) onto the existing
36 water system.
37

38 **39. *What is the Project’s proposed system for removing liquid and solid waste?***
39

40 The County of Hawaii does not operate a sewer system in the Waikoloa region
41 and the privately owned West Hawaii Sewer Company does not provide sewer
42 service to the Waikoloa Heights Project area. Waikoloa Heights is located
43 outside of West Hawaii Sewer Company’s service boundaries.
44

1 A private sewer collection system and treatment plant which is owned and
2 operated by a homeowners association would cost approximately \$16.8 million
3 and involve large operation and maintenance costs for the homeowners.
4

5 The Project therefore proposes to utilize individual wastewater systems (IWS) on
6 each lot. An IWS includes a septic tank and leaching (absorption) field which
7 will meet the State Department of Health's regulations for individual wastewater
8 systems.
9

10 The services of a private collection contractor will be utilized for solid waste
11 disposal.
12

13 **40. Will this be sufficient to meet the Project's needs based on the estimated**
14 **increase in population?**

15
16 Yes.

17
18 **41. In your opinion, will the proposed infrastructure improvements be sufficient to**
19 **support the Project?**

20
21 Yes.
22