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KAPOLEI PROPERTY DEVELOPMENT, LLC

BEFORE THE LAND USE COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Petition of

KAPOLEI PROPERTY DEVELOPMENT, LLC

To Amend the Agricultural Land Use District
Boundaries into the Urban Land Use District for
Approximately 344.519 Acres in Ewa District,
Island of Oahu, Tax Map Key Nos. (1) 9-1-
014:033 (por.), 034, 035 and (1) 9-1-015:020
(por.)

DOCKET NO. A06-763

**KAPOLEI PROPERTY DEVELOPMENT, LLC'S
WRITTEN DIRECT TESTIMONY OF CRAIG S. ARAKAKI**

EXHIBIT "42"

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**WRITTEN DIRECT TESTIMONY OF
CRAIG S. ARAKAKI**

BACKGROUND QUESTIONS

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

Craig Arakaki
Engineering Concepts, Inc.
1150 South King Street, Suite 700
Honolulu, Hawaii 96814

2. *What is your current occupation?*

Registered Civil Engineer.

3. *Are you a licensed professional engineer?*

Yes.

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

Civil Engineering related to land development.

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

27 years.

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

Obtained a Bachelor of Science degree in civil engineering from the University of Hawaii.

7. *Could you briefly summarize your work experience for us?*

Employed for 7 years at M & E Pacific, Inc. as a civil engineer. Twenty years at Engineering Concepts, Inc.

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

Yes.

9. *Is Petitioner's Exhibit "43" a true and accurate copy of your curriculum vitae?*

Yes.

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10. Where are you currently employed?

Engineering Concepts, Inc.

11. What is your title or position?

Vice President.

12. Could you briefly describe what Engineering Concepts, Inc. does?

Engineering Concepts, Inc. is a civil and environmental engineering firm. We are involved in planning and design of infrastructure serving existing and proposed developments.

13. Could you briefly describe your duties and responsibilities?

In addition to administrative responsibilities, I am involved in the planning and design of land development projects acting in the capacity of a project manager.

14. Could you briefly describe the type of work you currently perform as a civil engineer?

Prepare engineering reports; drainage, sewer and water reports and master plans; and design of site improvements for roadways, subdivisions, commercial developments and master planned communities.

15. Could you briefly describe to us the types of projects in which you have recently worked on?

Planning and design of various roadways and infrastructure in the City of Kapolei and Kapolei Business Park, planning and design of site improvements within the City of Kapolei including, Kmart, Home Depot, the Kapolei Shopping Center, Campbell Square, to name a few. I've also been involved in the planning and design of residential and commercial developments in Mililani, 'Ewa by Gentry, Waipio and Hawaii Kai.

16. Do you possess specialized knowledge within the field of engineering?

Yes, in the field of civil engineering, especially related to land development.

17. Have you previously been qualified and/or testified as an expert witness in the field of civil engineering?

Yes.

1 **18. If yes, on approximately how many occasions have you been qualified to testify**
2 **as an expert in the field of civil engineering?**

3
4 Four.

5
6
7 **KAPOLEI HARBORSIDE CENTER PROJECT**

8
9 **19. Are you familiar with the Kapolei area located in the 'Ewa District on the**
10 **Island of Oahu?**

11
12 Yes.

13
14 **20. Are you familiar with the Kapolei Harborside Center project ("Project") located**
15 **in the 'Ewa District on the Island of Oahu?**

16
17 Yes.

18
19 **21. How did you become familiar with the Project?**

20
21 I prepared the Preliminary Engineering Report for the Project and have been
22 involved in planning and infrastructure issues related to the area encompassing
23 the Project site for the last 20 years.

24
25
26 **ENGINEERING REPORT**

27
28 **22. Did you prepare a report about the Project?**

29
30 Yes.

31
32 **23. What did the report consist of?**

33
34 The study addressed the infrastructure requirements for the Project.

35
36 **24. Was this report prepared by you or under your supervision?**

37
38 Yes.

39
40 **25. Is Petitioner's Exhibit "44" a true and correct copy of your report?**

41
42 Yes.

1 **26. *Could you please summarize the scope of your report?***
2

3 The study addressed requirements for infrastructure necessary to serve the Project
4 including, drainage, wastewater, water and power requirements.
5

6 **27. *Could you describe the methodology used to prepare your report?***
7

8 Based on the planned development concept and densities, infrastructure
9 requirements, impacts and mitigation measures were determined. Infrastructure
10 needs were based on meeting the standards and requirements of the appropriate
11 State and City and County agencies.
12

13 **28. *Is the methodology you employed consistent with accepted industry standards?***
14

15 Yes.
16
17

18 **DRAINAGE**
19

20 **29. *Mr. Arakaki, I'm showing you what has been previously marked as Petitioner's***
21 ***Exhibit "45". Do you recognize it?***
22

23 Yes.
24

25 **30. *What is it?***
26

27 Figure 5 from my report (page 9), Kapolei Harborside Center: Drainage Basin.
28

29 **31. *Does this map fairly and accurately depict the drainage patterns of the Kapolei***
30 ***Harborside Center Project area?***
31

32 Yes.
33

34 **32. *I'm now showing you what has been previously marked as Petitioner's Exhibit***
35 ***"46". Do you recognize it?***
36

37 Yes.
38

39 **33. *What is it?***
40

41 Figure 6 from my report (page 11), Kapolei Harborside Center: Onsite Drainage
42 System.
43

1 **34. Does the report fairly and accurately depict the proposed drainage system for**
2 **the Project?**

3
4 Yes.

5
6 **35. Could you now briefly summarize your report's discussion regarding the**
7 **Project's potential impact on drainage?**

8
9 The Project will have a drainage channel crossing the site, from the railroad right-
10 of-way to Malakole Road. This channel will collect and convey runoff from the
11 site, as well as offsite runoff, to the ocean. Preliminary grading and drainage
12 studies have indicated that the Harborside site can be developed so that Project
13 runoff is drained to the major drainage channel.

14
15 **36. What impact, if any, will drainage runoff have on Kalaeloa Harbor?**

16
17 Runoff from the Project will not impact the Kalaeloa Harbor. Project runoff will
18 be collected and diverted away from the harbor to the major drainage channel.

19
20 **37. What mitigation measures do you propose to address the potential drainage**
21 **impacts related to the Project?**

22
23 Construction of major drainage improvements, including the major drainage
24 channel and roadway drainage systems will mitigate the potential drainage
25 impacts. These improvements will also improve existing drainage conditions by
26 eliminating ponding and uncontrolled runoff as is currently experienced.

27
28
29 **WASTEWATER**

30
31 **38. Mr. Arakaki, I'm showing you what has been previously marked as Petitioner's**
32 **Exhibit "47". Do you recognize it?**

33
34 Yes.

35
36 **39. What is it?**

37
38 Figure 10 from my report (page 23), Kapolei Harborside Center: Regional
39 Wastewater.

40
41 **40. Does this map fairly and accurately depict the regional wastewater facilities in**
42 **the region?**

43
44 Yes.

1 **41. Could you briefly describe wastewater facilities that will serve the Project?**
2

3 The Project site will be served by an underground collection system which will
4 convey the collected wastewater to a proposed sewer pump station in the vicinity
5 of the Malakole Street/Hanua Street intersection. This pump station will pump
6 wastewater to the railroad right-of-way where it will connect to an existing
7 gravity system for conveyance to the Honouliuli Wastewater Treatment Plant.
8

9 **42. What potential impacts will the Project have on existing wastewater facilities if
10 any?**
11

12 The Project will increase the amount of wastewater generated requiring additional
13 conveyance and treatment capacities.
14

15 **43. Could you briefly explain the relationship between the Project and the
16 Honouliuli Wastewater Treatment Plant?**
17

18 The Project is located approximately 3 miles west of the treatment plant.
19 Collected wastewater will be conveyed to the plant for treatment by a series of
20 gravity and force mains.
21

22 **44. What is the current handling capacity of the Honouliuli Wastewater Treatment
23 Plant ("HWTP")?**
24

25 The treatment plant has a liquid stream treatment capacity of about 38 million
26 gallons per day (mgd) and a solids treatment capacity of about 25 mgd.
27

28 **45. In its current state, can the HWTP handle both the liquid and solid waste
29 generated by the Project?**
30

31 The treatment plant can currently accommodate the additional liquid stream
32 generated by this Project. The solids handling capacity is currently near capacity
33 and may not be able to accommodate all of the solids generated by this Project.
34

35 **46. Are there any plans to upgrade the solids handling capacity of the HWTP?**
36

37 Yes. Plans for improvements to the treatment plant for increased solids handling
38 have been prepared.
39

40 **47. What is the status of the proposed upgrades?**
41

42 The City's Department of Environmental Services has selected a contractor to
43 begin construction of the solids handling improvements.
44

1 **48. *Based on your discussions with the Department of Environmental Services,***
2 ***what is their current timetable for completing the upgrades?***
3

4 The Department has indicated that the completion of the improvements will take
5 about two years.
6

7 **49. *Once upgraded, will the HWTP be able to accommodate the liquid and solid***
8 ***flows from the Project?***
9

10 Yes.
11

12 **50. *Are you familiar with the development schedule for the Project?***
13

14 Yes.
15

16 **51. *When do you anticipate the Project will commence development?***
17

18 In about 3 years.
19

20 **52. *Based on the current development schedule, do you anticipate the HWTP***
21 ***upgrades will be completed prior to the start of construction?***
22

23 Based on current information, yes.
24

25 **53. *What mitigation measures do you propose to address the potential impacts on***
26 ***wastewater infrastructure in the Project area?***
27

28 The Project area has been included in the planning of regional wastewater
29 infrastructure. A new gravity sewer line, the “Ko Olina relief interceptor” is
30 planned to be constructed to provide additional conveyance capacity from
31 extension of Hanua Street to Fort Barrette Road to the east. The recently
32 completed Kapolei Interceptor, which runs from Fort Barrette Road to the
33 treatment plant, has been sized to accommodate the developments in the Kapolei
34 area, including the Project area.
35

36 **54. *Will the Project utilize recycled water for non-potable uses?***
37

38 Yes.
39

40 **55. *Could you describe those uses?***
41

42 The Project will incorporate a dual water system. Currently, it is planned that the
43 area will connect to the Board of Water Supply (“BWS”) nonpotable water
44 system using reclaimed effluent from the Honouliuli Wastewater Treatment Plant.
45 The nonpotable water system would be extended to the area from the City of
46 Kapolei. An existing nonpotable system is currently serving the City of Kapolei.

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We are currently updating the nonpotable water master plan for the area for submittal to the BWS.

WATER

56. *Mr. Arakaki, I'm showing you what has been previously marked as Petitioner's Exhibit "48". Do you recognize it?*

Yes.

57. *What is it?*

Figure 11 from my report (page 25), Kapolei Harborside Center: Existing Water Facilities (Partial).

58. *Does this map fairly and accurately depict the water facilities?*

Yes.

59. *Could you briefly describe current and planned water resources affecting the Project area?*

The Project area will be served by existing water lines in the adjacent Kalaeloa Boulevard. New water lines will be extended within roadways leading to the Project area. An additional water storage tank above the freeway will also be constructed to provide storage for the Project area and adjacent properties.

60. *What sources of water are available to the Project?*

Water will be provided by the BWS. One source of water is the EW 15 and 16 wells near Honouliuli Gulch which are currently being improved by the BWS.

As indicated above, nonpotable water is planned to be provided by the BWS's nonpotable water system using reclaimed effluent.

61. *What potential impacts will the Project have on water facilities?*

The Project will generate an increase in water demands; however, the regional water systems have been planned with the Project area in mind.

1 **62. *Could you briefly describe the proposed dual potable and non-potable water***
2 ***system?***
3

4 The dual water system will have two separate lines with the roadways serving the
5 Project area. The nonpotable water system will be used mainly for irrigation
6 purposes. The potable water will be used for domestic and fire protection
7 purposes. It is expected that the project will use about 1.8 mgd of potable water
8 and about 0.5 mgd of nonpotable water.
9

10 The potable water will be supplied by BWS wells through existing water mains
11 and existing and proposed storage tanks. The nonpotable water will be reclaimed
12 effluent from the Honouliuli Wastewater Treatment Plant.
13

14 **63. *What mitigation measures do you propose to address the potential impacts on***
15 ***water infrastructure and availability in the Project area?***
16

17 The incorporation of the dual water system itself is a mitigative measure to
18 conserve the potable water supply.
19
20

21 **SOLID WASTE**
22

23 **64. *Could you briefly describe the solid waste currently generated in the Project***
24 ***area?***
25

26 The Project area does not currently generate solid wastes.
27

28 **65. *Based on your findings, could you discuss the types of solid waste that will be***
29 ***generated during and after build-out?***
30

31 The proposed Project will generate solid waste during construction and after
32 development. Construction wastes will primarily be made up of vegetation,
33 rocks, and debris resulting from clearing the site prior to construction. Most of
34 these wastes will be combustible.
35

36 After build-out, solid waste generation will be a function of the type of uses
37 developed. Typical commercial-industrial wastes for warehouses, and baseyards
38 could include a high percentage of combustible material suitable for power
39 generation or recycling.
40

41 **66. *What mitigation measures do you propose to address the potential impacts on***
42 ***the solid waste infrastructure in the Project area?***
43

44 A program for recycling could be implemented to reduce the amount of solid
45 waste generated.
46

1 **67.***In your professional opinion and based on your findings, with the proposed*
2 *mitigation measures, will the reclassification and development of the Project*
3 *adversely affect infrastructure related resources in the area?*

4
5 No. As indicated previously, the land uses had been previously proposed and
6 planned for.