Miki Basin Industrial Park

Environmental Assessment

Exhibit E

Economic and Fiscal Impact Assessment

PROPOSED MIKI BASIN INDUSTRIAL PARK:
ECONOMIC AND FISCAL IMPACT ASSESSMENT

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ECONOMIC AND FISCAL IMPACT ASSESSMENT

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CONTENTS

EXECUTIVE SUMMARY 1

1. INTRODUCTION 1

a. Content and Purpose 1
b. Methodology 1
c. Organization of the Report 2
d. Economic Consultant 3

2. PROJECT DESCRIPTION 3

a. Project Location and Area 3
b. Development Period 3
c. Project Components 3

3. SOCIO-ECONOMIC CONDITIONS 4

a. Socio-Economic Conditions, County of Maui 4
b. Socio-Economic Conditions, Island of Lāna'i 5

4. ECONOMIC IMPACTS OF DEVELOPMENT ACTIVITIES 6

a. Development Period 6
b. Construction Expenditures and Related Sales 6
c. Land Values and Sales 7
d. Profits 7
e. Employment 7
f. Payroll 8
g. Sources of Construction Workers 8

5. ECONOMIC IMPACTS OF OPERATIONS AT FULL DEVELOPMENT 8

a. Onsite Economic Activities 9
b. Sources of Professional and Skilled Workers 9
c. Supported Population 9
d. Rental Income 10

6. IMPACTS ON COUNTY REVENUES AND EXPENDITURES 10

a. Development Activities 10
b. Operations at Full Development 10

7. IMPACTS ON STATE REVENUES AND EXPENDITURES 10

a. Development Activities 11
b. Operations at Full Development 11

8. REFERENCES 11

FIGURES

1. Regional Location Map
2. Project Location Map
3. Site Plan

TABLES

1. Proposed Development
2. Demographic Characteristics, County of Maui and Island of Lana'i: 2010 and 2018 Estimates
3. Income and Education, County of Maui and Island of Lana'i: 2010 and 2018 Estimates
4. Economic Impacts of Development Activities (Values in 2018 Dollars)
5. Economic Impacts of Operations at Full Development (Values in 2018 Dollars)
6. Impacts on County Revenues and Expenditures (Values in 2018 Dollars)
7. Impacts on State Revenues and Expenditures (Values in 2018 Dollars)

EXECUTIVE SUMMARY

1. PROPOSED DEVELOPMENT

Miki Basin Industrial Park ("the Project") is a proposed master-planned development on a 200-acre site located in the Miki Basin area on the island of Lānaʻi, Hawaiʻi. The project will include approximately 100 acres of light industrial and 100 acres of heavy industrial zoned lands.

Development of the Project is expected to occur over a period of about 30 years, but development could require more or less time, depending on the pace of future economic and population growth, market conditions and lot sales.

Based on expected economic and population growth over the next 30 years, there will be a need for industrial zoned lands on the island of Lānaʻi as there is none available at the present time. This industrial land will provide space for the growth of new businesses.

2. CONSUMER AND BUSINESS BENEFITS

The project will provide light industrial and heavy industrial space as well as warehouse and baseyard space for existing and new businesses on Lānaʻi. These businesses will generate sales in the local economy and provide support employment.

3. SOCIO-ECONOMIC CONDITIONS

According to the U.S. Census Bureau's five-year estimates, between 2013 and 2017, the island of Lānaʻi had a resident population of approximately 3,203 residents, representing 1.95% of the County of Maui's population. With an average household size of 2.57 people per household, households on Lānaʻi are slightly smaller than households in the County as a whole. The mean household income on the island is estimated at $67,944, 38.3% lower than the County of Maui. An estimated 53.4% of Lānaʻi residents attended some college or received a higher education degree. Between 2013 and 2017, 68.9% of households on the island of Lānaʻi speaks only English at home.

4. EMPLOYMENT BENEFITS

a. Construction and Related Employment

During the Project's 30-year development period, construction employment is expected to average about 28 jobs per year. Due to the limited construction labor force on the island of Lānaʻi, it is assumed that the majority of the construction workers will come from off-island.

Indirect employment related to Project development is expected to average about 39 jobs per year. Thus, total direct-plus-indirect employment associated with Project development activities will average about 67 jobs per year. The actual job count will fluctuate over time, depending on the pace of construction.

b. Operating Employment

Onsite operating employment is expected to grow to approximately 360 net new jobs at full development. These jobs will include entry-level positions to highly skilled professionals.

5. FISCAL BENEFITS

a. County

Project development activity is expected to have a negligible impact on County finances inasmuch as the developer will provide or pay its fair-share of support infrastructure (interior roads, water distribution, sewerlines, drainage, etc.).

At full development, the Project is expected to generate net income to the County of approximately $2.0 million per year. Net revenues are positive largely because of the property taxes.

Inasmuch as the Miki Basin Industrial Park is expected to be developed in conjunction with forecasted population growth for Lānaʻi, the County is not expected to realize significant additional increases in expenditures as a direct result of the project.

b. State

Unlike the County, the State derives substantial net revenues from development activity. Over the estimated 30-year construction period, the State will net about $28.3 million from construction and related economic activities associated with the Project, or an average of about $0.94 million per year.

At full development, the Project is expected to generate net income to the State of about $1.9 million per year. The positive return to the State reflects the various taxes on economic activities associated with the Miki Basin Industrial Park. As with County services, additional State expenditures are not anticipated to be required to support operations for the project.

MIKI BASIN INDUSTRIAL PARK:
SOCIO-ECONOMIC CONDITIONS, ECONOMIC IMPACTS, AND FISCAL IMPACTS

1. INTRODUCTION

a. Content and Purpose

Miki Basin Industrial Park ("the Project") is a proposed master-planned development on a 200-acre site located in the Miki Basin area on the island of Lāna'i, Hawai'i. The Project will include 100 acres of light industrial and 100 acres of heavy industrial zoned lands.

This report addresses the economic and fiscal benefits and impacts of the Project. Its purpose is to provide State and County officials with information relevant to their decisions about development approvals.

The economic impacts cover sales and expenditures, profits, employment, and payroll related to (1) construction and related activities, and (2) operations at full development of the Project.

Fiscal impacts address the impact of the Project on County and State revenues and expenditures. The material covers the increase in County and State tax revenues, the increase in government support expenditures, and the resulting net revenues to the County and State.

b. Methodology

Data Sources

Socioeconomic data for the County of Maui and the island of Lāna`i was obtained from the U.S. Census Bureau's 2010 Decennial Census and the American Community Survey 2013-2017 five-year estimates. The American Community Survey is an ongoing survey conducted by the Census Bureau that provides data annually on a broad range of social, economic, demographic, and housing characteristics. The multiyear estimates provide increased statistical reliability for less populated areas. The American Community Survey's five-year estimates provide data on various socioeconomic characteristics for the island of Lāna'i that are not readily available from other data sources, many of which do not report on the sub-county level. Where available, 2017 data is also cited from the 2017 *Maui County Data Book* for comparison.

Multipliers

The proposed development is translated into economic and fiscal impacts based on a number of multipliers (for example, indirect sales as a percentage of direct sales, jobs per $1 million in sales, indirect jobs per direct jobs, and tax rates). These multipliers reflect the

professional judgment of the consultant, and were derived based on information from the following sources: other projects similar to this proposed Project; U.S. Census data; the *State of Hawai'i Data Book;* the *Maui County Data Book; The 2012 Input-Output Study for Hawai'i; The Hawai'i Inter-County Input-Output Study: 2012 Benchmark Report;* employment and labor rates from the State Department of Labor and Industrial Relations (DLIR); County and State tax rates; and revenue and expenditure data from the County and the State.

2018 Dollars

Throughout the report, dollar amounts are expressed in terms of 2018 purchasing power and market conditions. Values, prices, costs and dollar amounts for prior years are adjusted for inflation to 2018 dollars based on the Honolulu Consumer Price Index (CPI) for Urban Consumers. Dollar amounts after 2018 are not increased to account for inflation, appreciation in property values, changes in labor rates, changes in building costs, or other changes in market conditions.

Accuracy of Estimates

Much of the analysis contained in this report is quantitative in nature, where numbers are used to help communicate anticipated impacts. However, these numbers should not be interpreted as precise predictions. Rather, they represent the best estimates of what is expected to occur based on available information about future development, market conditions, and tax rates. As a general rule, economic and fiscal impact estimates in this report are accurate within about 20%.

It is noted that some parameters are not estimated in this report because values are nominal and anticipated to have an insignificant impact on economic and fiscal impacts.

c. Organization of the Report

The material below gives the following information about the Project and its economic and fiscal impacts: a description of the Project, demographic characteristics, income, and education, the economic impacts of construction and related activities, the economic impacts of Project operations at full development, the impact on County revenues and expenditures, the impact on State revenues and expenditures, and a summary of major economic and fiscal benefits.

The detailed assumptions, multipliers, and calculations are shown in seven (7) tables at the end of the report. These tables cover the following:

- Table 1: Proposed Development
- Table 2: Demographic Characteristics
- Table 3. Income and Education
- Table 4: Economic Impacts of Development Activities
- Table 5: Economic Impacts of Operations at Full Development

— Table 6: Impacts on County Revenues and Expenditures

— Table 7: Impacts on State Revenues and Expenditures

The quantities appearing in **bold** in the tables highlight the more significant economic and fiscal impacts.

d. Economic Consultant

The analysis was conducted by Plasch Econ Pacific LLC, a Hawai'i-based economic-consulting firm specializing in economic development, land and housing economics, feasibility studies, valuations, market analysis, public policy analysis, and the economic and fiscal impacts of projects. The work was done in partnership with Munekiyo Hiraga, a Hawai‘i based planning consulting firm.

2. PROJECT DESCRIPTION

a. Project Location and Area

The Project will be located on an approximately 200-acre site in Miki Basin on the island of Lāna‘i, east of the Lāna‘i Airport. The site is about 3 miles southwest of Lāna‘i City (see Figures 1, 2 and 3).

b. Development Period

Development of the Project is expected to occur over a period of about 30 years, but development could require more or less time, depending on the pace of future economic and population growth, market conditions and lot sales.

c. Project Components

As shown in Table 1, the Project will include the following components:

100 acres light industrial area

- Light industrial uses
- Warehouses
- Baseyards
- Reserve
- Roadways and common areas

100 acres heavy industrial area

- Heavy industrial uses
- Warehouses
- Utility facilities, Major

- Baseyards
- Reserve
- Roadways and common areas

Generally, communities of this size have the following types of light industrial uses: cold storage plants, commercial laundries, craft cabinet and furniture manufacturing, general food, fruit, and vegetable processing and manufacturing plants, laboratories, machine shop or other metal working shop, small boat building, tire repair operation, warehouse, storage and loft building, minor utility facilities etc. The heavy industrial uses in communities of this size would include automobile wrecking, lumber yard, machine shops, major utilities facilities, etc.

Based on expected economic and population growth over the next 30 years, there will be a need for industrial zoned lands on the island of Lāna‘i as there is none available at the present time. This industrial land will provide space for the growth of new businesses.

3. SOCIO-ECONOMIC CONDITIONS

a. Socio-Economic Conditions, County of Maui

Tables 2 and 3 summarize socio-economic conditions for the County of Maui, as well as the island of Lāna‘i which is discussed in the next section. The County of Maui consists of the islands of Maui, Lāna‘i, Moloka‘i, Kaho‘olawe, and Molokini.

Population

According to the 2017 Maui County Data Book, the 2017 population of the County of Maui was 166,260 residents. The American Community Survey's five-year estimate reports that between 2013 and 2017, the County of Maui’s population was about 164,094 residents, up 6.0% since 2010 (see Table 2). Residents include those who live full-time or permanently in the County, and exclude visitors and part-time residents (i.e., those who reside most of the time in a primary home located elsewhere).

The total County population amounted to approximately 11.5% of the State population between 2013 and 2017—the second smallest of the four (4) counties.

Population Characteristics and Distribution

The County of Maui’s population is racially diverse (see Table 2). Between 2013 and 2017, white residents were estimated to comprise 35.5% of the County’s population, while Asians maked up 29.0%, people of two or more races represented 23.0%, and Native Hawaiian and Other Pacific Islanders constituted 10.7%.

The estimated median age of the County residents was 40.9 years old between 2013 and 2017. Similar to the national demographic trends, the County of Maui’s population is slightly aging. In 2010, the median age was 39.6 years old.

Households

The average household size of the County of Maui was estimated to be 2.97 people per household between 2013 and 2017, which increased since 2010 (see Table 2). Approximately 59.3% of the County's households were estimated to be homeowners between 2013 and 2017. An estimated 68.5% of the households in the County are family households.

Housing

Between 2013 and 2017, the County of Maui had an estimated 72,093 housing units, up 2.4% from 2010 (see Table 1). This figure includes resort/residential units that were used as second homes, or were available for visitors, or were vacant. Approximately 24.6% of housing units in the County were estimated to be vacant. In the 2010 Census, 23.4% of housing units of the County were vacant, including 14.1% that were for seasonal, recreational, or occasional use.

Income and Education

Table 3 provides information on income levels and education for the residents of the County of Maui. The mean household income between 2013 and 2017 was estimated to be $93,964. An estimated 92.2% of the residents of the County were estimated to have high a school degree or higher between 2013 and 2017. About 77.6% of the households in the County speak only English at home, comparable to 2010 figures.

b. Socio-Economic Conditions, Island of Lānaʻi

Population and Distribution

Between 2013 and 2017, the island of Lānaʻi was estimated to have a resident population of approximately 3,203, or 1.95% of the County's population. The population on Lānaʻi grew at a slightly slower rate than the County as a whole, increasing by 2.2% from 3,135 residents in 2010 (See Table 2). The Lānaʻi Community Plan, which was updated and approved by the Maui County Council in 2016, notes that an additional 885 residents are forecasted to live on the island by the year 2030, for a total population of 4,020 (based on the County's Land Use Forecast produced in December 2012).

Between 2013 and 2017, Asian residents were estimated to comprise a higher proportion of the Lānaʻi population compared to the County as a whole; 54.1% of residents were estimated to be Asians compared to 29.0% of residents in the County (Table 2).

The resident profile of the island of Lānaʻi is older than that of the County as a whole. The median age on the island of Lānaʻi is estimated to be 46.3 years old between 2013 and 2017 compared to 40.9 years old in the County.

Households

The average household size on the island of Lānaʻi is estimated to be 2.57 people per household between 2013 and 2017—a slight decrease from 2.71 people per household in 2010 (Table 1). On average, households on Lānaʻi are slightly smaller than households in the County as a whole (2.97 people per household between 2013 and 2017).

Housing

Between 2013 and 2017, the island of Lānaʻi had an estimated 1,561 housing units (Table 2). The island of Lānaʻi had a slightly lower proportion of vacant housing units than the County of Maui as a whole. Approximately 20.2% of housing units is estimated to be vacant on Lānaʻi, compared to 24.6% in the County.

Income and Education

The mean household income on the island of Lānaʻi between 2013 and 2017 was estimated at $67,944, 38.3% lower than the County of Maui as a whole (Table 3). Correspondingly, Lānaʻi has a lower per-capita income. A slightly lower proportion of residents on the island of Lānaʻi completed some secondary education compared to the island as a whole. An estimated 53.4% of Lānaʻi residents attended some college or received a higher education degree, compared to 60.7% of the residents of the County as a whole. Between 2013 and 2017, 68.9% of the households on the island of Lānaʻi spoke only English at home, while 31.1% spoke Asian and Pacific Island languages.

4. ECONOMIC IMPACTS OF DEVELOPMENT ACTIVITIES

The development of the Project will involve the following activities: (1) grading and other work to prepare the site for development; (2) construction of internal roads, a water delivery system, sewer systems, drainage systems, utilities systems, etc.; (3) sale of lots to component developers; and (4) construction of buildings. Table 4 summarizes the direct and indirect economic impacts of these development activities. The material in this table gives the development period, construction expenditures, indirect sales generated by the construction activity, property sales, profits, and employment and payroll.

a. Development Period

As indicated in Section 4.a of Table 4, the assumed development period is approximately 30 years. Given the current economy and population, along with projected growth, significant demand for industrial space is expected during this period. However, development could require more or less time, depending on future market conditions, lot sales, and the construction of buildings.

b. Construction Expenditures and Related Sales

Over the 30-year development period, total construction expenditures for the Project are estimated at about $339.6 million (see Section 4.b of Table 4 for cost assumptions). This translates into average construction expenditures of about $11.3 million per year. In practice, construction expenditures will vary from year to year. Infrastructure costs will occur in the early years of development as the backbone infrastructure is installed. Construction costs associated with buildings will be realized over time as the lots are absorbed and developed.

In addition to construction costs, other development costs will be incurred for planning, permitting, design, financing, County and State exactions, marketing, and sales commissions.

In addition to construction expenditures, development activities will generate indirect sales associated with supplying goods and services to construction companies and to the families of construction workers. In turn, the companies supplying goods and services, and the families of their employees, will purchase goods and services from other companies, and so on. These indirect sales will include sales by companies supplying building materials (cement, steel, lumber, roofing materials, plumbing equipment, electrical equipment, hardware supplies, lighting, flooring, etc.); rent out construction equipment; repair equipment; provide warehousing services; provide shipping and trucking services; etc. Indirect sales also include sales by grocery stores, drug stores, restaurants, service stations, beauty salons, medical providers, accountants, attorneys, insurance agents, etc.

Based on State economic multipliers, these indirect sales are expected to average about $6.0 million per year, of which about $3.6 million per year will be on the island of Lāna‘i and about $2.4 million on O`ahu (see Section 4.b of Table 4.).

Construction expenditures and indirect sales related to construction are expected to average about $17.4 million per year. About $13.7 million per year will be subject to the State 4% excise tax on final sales, while about $3.7 million per year will be subject to the 0.5% excise tax on intermediate sales. Depending upon market conditions, development and sales in some years may be much higher or lower than the average.

c. Land Values and Sales

It is expected that the lots within the Miki Basin Industrial Park will be sold to individual businesses for their use, or to developers. Total land sales are estimated at $105 million (see Section 4.c. of Table 4).

d. Profits

Profits on construction expenditures and related sales are estimated at about $2.3 million per year (see Section 4.d. of Table 4). These profits will accrue to the various construction companies and subcontractors, and to the various companies that sell goods and services to those companies and families benefiting from the construction activity.

e. Employment

During the Project’s 30-year development period, construction employment is expected to average about 28 jobs per year (see Section 4.e. of Table 4). These jobs will include supervisors, heavy-equipment operators (grading, roads, water mains, sewerlines, etc.), cement workers to lay foundations, metal workers, carpenters, plumbers, electricians, roofers, glass and window installers, cabinet makers, carpet and tile layers, painters, equipment installers, interior decorators, landscapers, etc. Other jobs related to construction will include

architects, civil engineers, draftsmen, government inspectors, etc. These jobs will range over a variety of skill levels, including entry-level, semi-skilled, skilled, management, and professional positions.

As with indirect sales, development activities will generate indirect jobs associated with supplying goods and services to construction companies and to the families of construction workers. In turn, the companies supplying goods and services, and the families of their employees, will purchase goods and services from other companies, and so on. Indirect jobs will include those at companies supplying building materials (cement, steel, lumber, roofing materials, plumbing equipment, electrical equipment, hardware supplies, lighting, flooring, etc.); rent construction equipment; repair equipment; provide warehousing services; provide shipping and trucking services; etc. Other indirect jobs will include those involved with supplying goods and services to employees and their families: grocery workers, store clerks, restaurant workers, service-station workers, beauty technicians, barbers, bankers, pharmacists, veterinarians, computer technicians, medical workers, accountant attorneys, etc. The jobs will range over a variety of skill levels, including entry-level, semi-skilled, skilled, and management positions.

Based on State employment multipliers, indirect employment related to Project development is expected to average about 39 jobs per year.

Thus, total direct-plus-indirect employment associated with Project development activities will average about 67 jobs per year.

f. Payroll

Development activities are expected to generate a total payroll of about $4.2 million per year for the Project, of which about $2.5 million will be for construction workers, and about $1.8 million for indirect employment (see Section 4.f. of Table 4). These estimates are based on the average number of direct and indirect jobs multiplied by average wages as reported to the DLIR.

Wages are expected to average about $89,000 per year for construction jobs and about $45,000 for indirect jobs.

g. Sources of Construction Workers

The construction labor force on the island of Lāna‘i is limited. As such, it is assumed that a mix of on-island and off-island construction workers will fill the various jobs generated by the proposed development. In the past, construction workers have commuted to Lāna‘i to fill the labor requirements of building projects.

5. ECONOMIC IMPACTS OF OPERATIONS AT FULL DEVELOPMENT

Table 5 summarizes economic impacts of the Miki Basin Industrial Park at full development.

a. Onsite Economic Activities

Because some of the businesses that occupy the proposed development are anticipated to be businesses that relocate from elsewhere on Lāna‘i, information is provided for both onsite economic activities and net new economic activities. It is assumed that there are some businesses operating out of homes and garages and will relocate and expand to the proposed Miki Basin Industrial Park. Assuming 5% of Lāna‘i households have in-home businesses that may relocate and each of those businesses require approximately 1,000 square feet, it is estimated that about 62,300 square feet of light industrial space will be for existing businesses. As a result, the project would generate net new light industrial space in the amount of 237,700 square feet. It is assumed that all of the heavy industrial space, warehouses, and baseyards will be for new businesses.

Revenues and Profit

At full development, onsite economic activities are expected to generate about $90.0 million per year in revenues. Net new revenues is estimated at $80.7 million.

Corresponding onsite profits will amount to about $9.0 million per year at full development. Net new profits are estimated at $8.1 million per year.

Employment and Payroll

Onsite operating employment is expected to total over approximately 400 jobs, including 360 net new jobs.

The jobs will range over a variety of skill levels, including entry-level, semi-skilled, skilled, highly skilled professionals, and management positions. Total onsite payroll for these jobs is estimated at about $18.0 million per year, of which $16.2 million would be net new income.

b. Sources of Professional and Skilled Workers

As the Miki Basin Industrial Park will be developed over a period of many years, professionals and skilled workers will be recruited from the various public and private universities, colleges, technical schools, companies, and other organizations in Hawai‘i and on the mainland. The jobs will appeal to professionals and skilled workers who want to apply their training and skills and remain in Hawai‘i or return to Hawai‘i.

Programs to increase the supply of professionals and skilled workers are the responsibility of the various universities, colleges, and technical schools.

c. Supported Population

Jobs within the Miki Basin Industrial Park will support approximately 930 residents in 360 homes (see Section 5.f of Table 5).

d. Rental Income

It is assumed that the majority of businesses within the Miki Basin Industrial Park will own their lots. While some lots may be leased to tenants and generate rental income, rent revenue is expected to be nominal and is not estimated.

6. IMPACTS ON COUNTY REVENUES AND EXPENDITURES

The impact of the Project on County finances is shown in Table 6. This table summarizes: (1) changes in the County’s tax and expenditure base which is used to calculate revenues and expenditures, (2) revenues and expenditures related to development activities, and (3) revenues and expenditures related to operations at full development of the Project.

a. Development Activities

The County derives negligible tax revenues from development activity.

Regarding County expenditures to support the Project, they also are expected to be negligible. As with other major projects in the County, the developer and builders will provide or finance their fair shares of infrastructure and facilities to support the Project. This will include interior roads, interior water distribution, sewer systems, drainage systems, etc. Also, construction activities require few onsite services from the County. Furthermore, construction companies will provide their own security, sanitation, transportation, etc.

As a result, Project development activity will result in a negligible impact on County finances during the development period.

b. Operations at Full Development

At full development, the Project will generate increased property tax revenues to the County of about $2.0 million per year (Table 6, Section 6.b). A nominal amount of other revenue from other taxes and user fees may be generated but is not estimated.

Inasmuch as the Miki Basin Industrial Park is expected to be developed in conjunction with forecasted population growth for Lāna‘i, the County is not expected to realize significant additional increases in expenditures as a direct result of the project. As a result, the Project is projected to generate about $2.0 million per year in net revenues to the County.

7. IMPACTS ON STATE REVENUES AND EXPENDITURES

The impact of the Project on State finances is shown in Table 7. This table summarizes: (1) changes in the State’s tax and expenditure base which is used to calculate revenues and expenditures, (2) revenues and expenditures related to development activities, and (3) revenues and expenditures related to operations at full development.

a. Development Activities

Unlike the County, the State derives substantial revenues from development activity. Over the 30-year development period, Project development activities are expected to generate about $28.3 million in revenues for the State, for an average of about $0.94 million per year (Table 7, Section 7.a). Most of the revenues will be derived from (1) excise taxes, (2) corporate and personal income taxes, and (3) conveyance taxes. There are no State Department of Education (DOE) school impact fees for the island of Lāna‘i.

State expenditures to support Project development activities are expected to be negligible. Infrastructure and facilities to support the Project are primarily a County responsibility, with most of the fair share provided or financed by the developer. Also, Construction activities will require few onsite services from the State. Furthermore, most required services will be provided by construction companies.

Over the 30-year development period, the State will net about $28.3 million from development activities associated with the Project, for an average of about $0.94 million per year.

b. Operations at Full Development

At full development, the Project will generate increased revenues to the State of about $1.9 million per year (Table 7, Section 7.b). State revenues will include excise taxes, corporate and personal income taxes.

Additional State expenditures are not anticipated to be required to support operations for the project.

At full development, the Project is projected to generate about $1.9 million per year in net revenues to the State. The positive return to the State reflects the various taxes on economic activity associated with the light industrial and heavy industrial uses.

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FIGURES

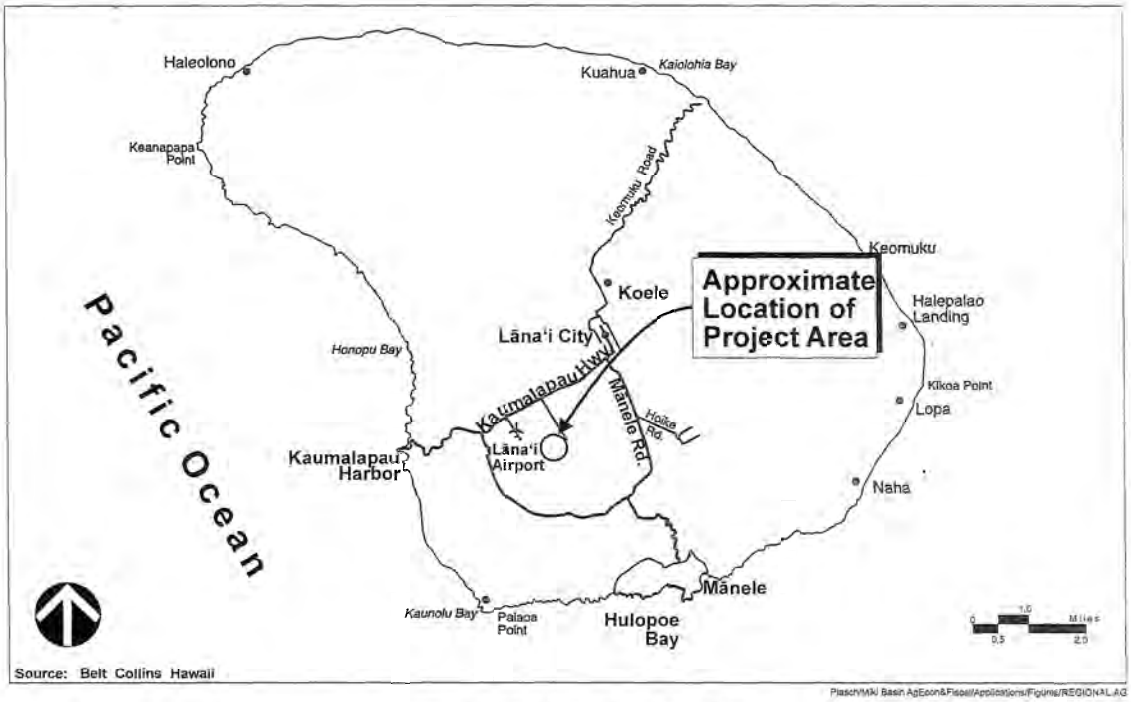

Figure 1. Regional Location Map

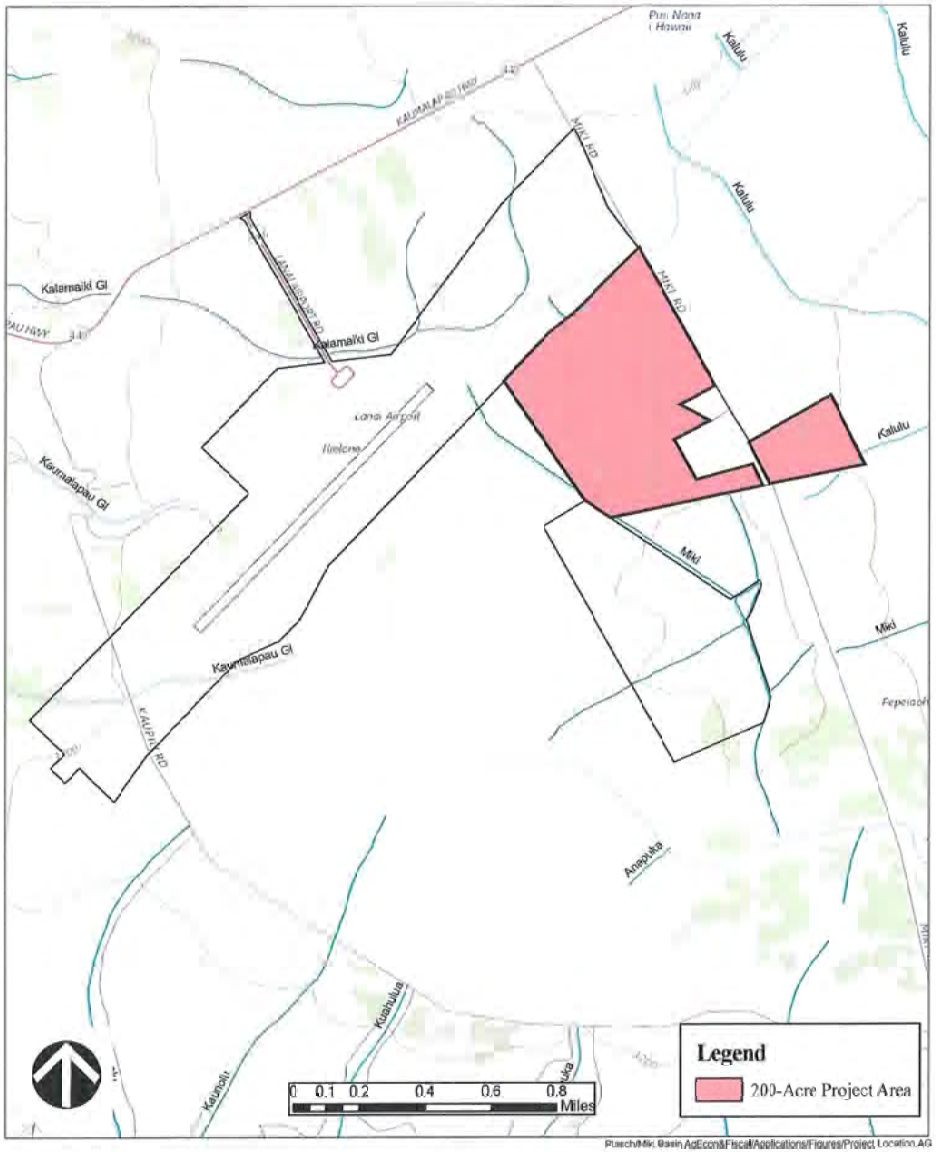

Figure 2. Project Location Map

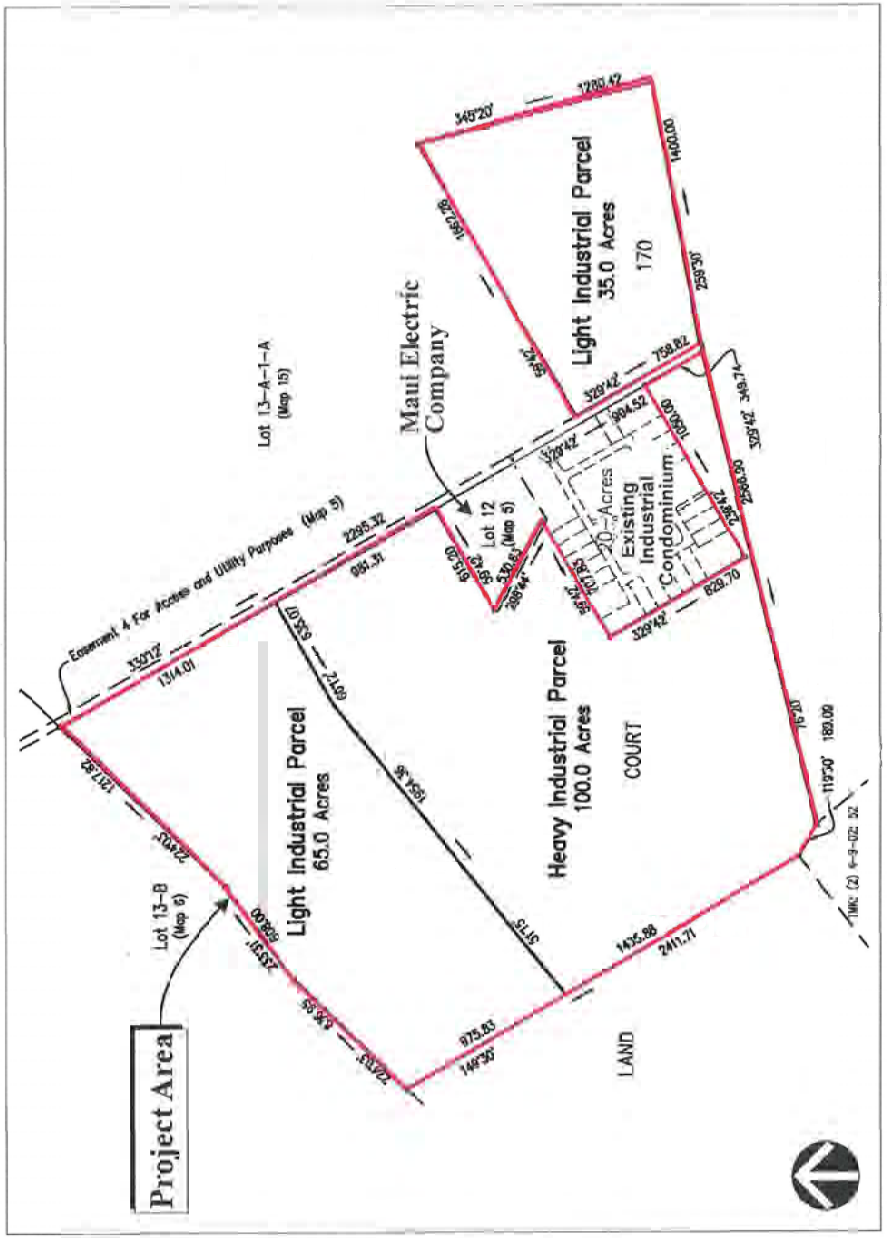

Figure 3. Site Plan

TABLES

Table 1. Proposed Development
(Values in 2018 dollars)

Item	Source or Multiplier	Amount	Units
1.a. LAND AREA			
Light Industrial Area	Pulama Lanai	100.0	acres
Light Industrial Uses		20.0	acres
Warehouses		10.0	acres
Baseyards		20.0	acres
Reserve		20.0	acres
Roadways and common areas		30.0	acres
Heavy Industrial Area	Pulama Lanai	100.0	acres
Heavy Industrial Uses		20.0	acres
Warehouses		10.0	acres
Baseyards		20.0	acres
Reserve		20.0	acres
Roadways and common areas		30.0	acres
Total Area Developed		**200.0**	**acres**
1.b. BUILDING SQUARE FOOTAGE			
Light Industrial Area			
Light Industrial Uses	15,000 sq ft per acre	300,000	sq. ft.
Warehouses	15,000 sq ft per acre	150,000	sq. ft.
Baseyards		-	sq. ft.
Reserve		-	sq. ft.
Heavy Industrial Area			
Heavy Industrial Uses	15,000 sq ft per acre	300,000	sq. ft.
Warehouses	15,000 sq ft per acre	150,000	sq. ft.
Baseyards		-	sq. ft.
Reserve		-	sq. ft.
Total Building Square Footage		**900,000**	**sq. ft.**

Table 2. Demographic Characteristics, County of Maui and Island of Lana'i: 2010 and 2012-2017 Estimates

Item	County of Maui			Lana 'i		
	2010	2012-2017	Change	2010	2013-2017	Change
Population (residents)	154,834	164,094	6.0%	3,135	3,203	2.2%
Male	77,587	81,933	5.6%	1,600	1,617	1.1%
Female	77,247	82,161	6.4%	1,535	1,586	3.3%
Distribution						
Male	50.1%	49.8%		51.0%	50.5%	
Female	49.9%	50.2%		49.0%	49.5%	
Population by Age						
Pre-school Age, 4 and Under	10,020	10,179	1.6%	235	185	-21.3%
School Age, 5 to 19	29,117	29,431	1.1%	621	549	-11.6%
Working Age, 20 to 64	95,894	98,011	2.2%	1,805	1,871	3.7%
Retirement Age, 65 and Over	19,803	26,473	33.7%	474	598	26.2%
Distribution						
Pre-school Age, 4 and Under	6.5%	6.2%		7.5%	5.8%	
School Age, 5 to 17	18.8%	17.9%		19.8%	17.1%	
Working Age, 18 to 64	61.9%	59.7%		57.6%	58.4%	
Retirement Age, 65 and Over	12.8%	16.1%		15.1%	18.7%	
Median Age	39.6	40.90	3.3%	38.6	46.30	19.9%
Ethnicity						
White alone	53,336	58,275	9.3%	460	546	18.7%
Black or African American alone	870	933	7.2%	5	65	1200.0%
American Indian and Alaska Native alone	603	279	-53.7%	2	0	-100.0%
Asian alone	44,595	47,591	6.7%	1,745	1,733	-0.7%
Native Hawaiian and Other Pacific Islander alone	16,051	17,477	8.9%	205	292	42.4%
Some Other Race alone	3,051	1,792	-41.3%	5	0	-100.0%
Two or More Races	36,328	37,747	3.9%	713	567	-20.5%
Distribution						
White alone	34.4%	35.5%		14.7%	17.0%	
Black or African American alone	0.6%	0.6%		0.2%	2.0%	
American Indian and Alaska Native alone	0.4%	0.2%		0.1%	0.0%	
Asian alone	28.8%	29.0%		55.7%	54.1%	
Native Hawaiian and Other Pacific Islander alone	10.4%	10.7%		6.5%	9.1%	
Some Other Race alone	2.0%	1.1%		0.2%	0.0%	
Two or More Races	23.5%	23.0%		22.7%	17.7%	

Table 2. Demographic Characteristics, County of Maui and Island of Lana'i: 2010 and 2018 Estimates

(continued)

Item	County of Maui			Lana 'i		
	2010	2012-2017	Change	2010	2013-2017	Change
Households	53,886	54,381	0.9%	1,158	1,246	7.6%
Average Size	2.82	2.97	5.3%	2.71	2.57	-5.2%
Tenure						
Homeowners	30,055	32,248	7.3%	591	642	8.6%
Renters	23,831	22,133	-7.1%	567	604	6.5%
Distribution						
Homeowners	55.8%	59.3%		51.0%	51.5%	
Renters	44.2%	40.7%		49.0%	48.5%	
Household Type						
Family Household	35,498	37,230	4.9%	788	846	7.4%
Non-Family Household	18,388	17,151	-6.7%	370	400	8.1%
Distribution						
Family Household	65.9%	68.5%		68.0%	67.9%	
Non-Family Household	34.1%	31.5%		32.0%	32.1%	
Housing Units	70,379	72,093	2.4%	1,545	1,561	1.0%
Occupied	53,886	54,381	0.9%	1,158	1,246	7.6%
Vacant	16,493	17,712	7.4%	387	315	-18.6%
For seasonal, recreational, or occasional use	9,956	n/a		108	n/a	
Distribution						
Occupied	76.6%	75.4%		75.0%	79.8%	
Vacant	23.4%	24.6%		25.0%	20.2%	
For seasonal, recreational, or occasional use	14.1%	n/a		7.0%	n/a	

Sources:

U.S. Censusu Bureau. Decennial Census. 2010.

U.S. Census Bureau. American Community Survey 5 Year Estimate, 2012-2017.

Table 3. Income and Education, County of Maui and Island of Lana'i: 2008-2012 and 2013-2017 Estimates

Item	County of Maui			Lana 'i		
	2008-2012	2013-2017	Change	2008-2012	2013-2017	Change
Income						
Mean Household Income	$83,535	$93,964	12.5%	$67,656	$67,944	0.4%
Per Capita Income	$29,493	$32,379	9.8%	$22,015	$27,698	25.8%
Educational Attainment, 25 Years and Older						
Less than 9th Grade	5,230	3,908	-25.3%	268	198	-26.1%
Grades 9 to 12, No Diploma	5,814	5,215	-10.3%	145	97	-33.1%
High School Graduate, No College	33,617	36,470	8.5%	829	824	-0.6%
Some College, No Degree	26,388	28,082	6.4%	393	481	22.4%
Associate Degree	9,449	11,768	24.5%	183	229	25.1%
College, Bachelor's Degree	17,938	20,711	15.5%	301	414	37.5%
Graduate or Professional Degree	9,045	9,748	7.8%	144	162	12.5%
Total Population, Age 25 and Older	107,481	115,902	7.8%	2,263	2,405	6.3%
Distrbution						
Less than 9th Grade	4.9%	3.4%		11.8%	8.2%	
Grades 9 to 12, No Diploma	5.4%	4.5%		6.4%	4.0%	
High School Graduate, No College	31.3%	31.5%		36.6%	34.3%	
Some College, No Degree	24.6%	24.2%		17.4%	20.0%	
Associate Degree	8.8%	10.2%		8.1%	9.5%	
College, Bachelor's Degree	16.7%	17.9%		13.3%	17.2%	
Graduate or Professional Degree	8.4%	8.4%		6.4%	6.7%	
Language Spoken at Home (Household)						
English Only	115,471	119,421	3.4%	2,207	2,078	-5.8%
Spanish	3,056	5,243	71.6%	-	-	0.0%
Other Indo-European	2,702	1,609	-40.5%	42	-	-100.0%
Asian and Pacific Island languages	23,598	27,044	14.6%	970	940	-3.1%
Others	88	598	579.5%	-	-	0.0%
Distribution						
English Only	79.7%	77.6%		68.6%	68.9%	
Spanish	2.1%	3.4%		0.0%	0.0%	
Other Indo-European	1.9%	1.0%		1.3%	0.0%	
Asian and Pacific Island languages	16.3%	17.6%		30.1%	31.1%	
Others	0.1%	0.4%		0.0%	0.0%	

Sources:

U.S. Census Bureau. American Community Survey 5 Year Estimate, 2008-2012.

Table 4. Economic Impacts of Development Activities

(Values in 2018 dollars)

Item	Source or Multiplier	Amount	Units
4.a. DEVELOPMENT PERIOD			
Duration of Construction		**30**	**years**
4.b. CONSTRUCTION EXPENDITURES AND RELATED SALES			
Construction Costs			
Infrastructure			
Sitework and Utilities	Pulama Lanai	$ 174,582,000	
Buildings			
Light Industrial Area			
Light Industrial Uses	$200 per sq. ft.	$ 60,000,000	
Warehouses	$150 per sq. ft.	$ 22,500,000	
Baseyards		$ -	
Reserve		$ -	
Heavy Industrial Area			
Heavy Industrial Uses	$200 per sq. ft.	$ 60,000,000	
Warehouses	$150 per sq. ft.	$ 22,500,000	
Baseyards		$ -	
Reserve		$ -	
Total for Buildings		$ 165,000,000	
Total Construction Costs		**$ 339,582,000**	
Construction Expenditures, Annual Average			
Infrastructure		$ 5,819,400	per year
Hawaii	55%	$ 3,200,700	per year
Imports	45%	$ 2,618,700	per year
Buildings		$ 5,500,000	per year
Hawaii	55%	$ 3,025,000	per year
Imports	45%	$ 2,475,000	per year
Total Construction Expenditures, Annual Average		**$ 11,319,400**	**per year**
Hawaii	55%	$ 6,225,700	per year
Imports	45%	$ 5,093,700	per year
Indirect Sales, Annual Average			
Infrastructure	1.11 of Hawaii exp.	$ 3,552,800	per year
Buildings	0.82 of Hawaii exp.	$ 2,480,500	per year
Total Indirect Sales, Annual Average		**$ 6,033,300**	**per year**
Lanai	60%	$ 3,620,000	per year
Oahu	40%	$ 2,413,300	per year
Total Direct and Indirect Sales, Annual Average		**$ 17,352,700**	**per year**
Other Development Costs [1]		**n.e.**	
Final Sales (taxed at 4%)			
Construction Expenditures	Section 4.b	$ 11,319,400	per year
Consumption	55% of payroll	$ 2,335,850	per year
Total Sales at 4%		**$ 13,655,250**	**per year**
Intermediate Sales (taxed at 0.5%)			
Indirect Sales Related to Construction	Section 4.c	$ 6,033,300	per year
Less Consumption		$ (2,335,850)	
Total Sales at 0.5%		**$ 3,697,450**	**per year**
4.c. LAND SALES			
Light Industrial Area	$750,000 per acre	$ 52,500,000	
Heavy Industrial Area	$750,000 per acre	$ 52,500,000	
Total Land Sales		**$ 105,000,000**	
Annual Land Sales		**$ 3,500,000**	**per year**

Table 4. Economic Impacts of Development Activities

(Values in 2018 dollars)

(continued)

Item	Source or Multiplier	Amount	Units
4.d. PROFITS			
Profits on Total Expenditures & Sales	10.0%	$ 1,735,270	per year
Risk Premium for Construction	5.0%	$ 566,000	per year
Land Sales		n.e.	
Total Profit from Construction & Related Activity		**$ 2,301,270**	**per year**
4.e. EMPLOYMENT (on-site & off-site)			
Construction Jobs	4.48 x sales/$1 mil	28	jobs/year
Indirect Jobs Generated by Construction	1.41 x direct jobs x	39	jobs/year
Land Sales		n.e.	
Total Employment		**67**	**jobs/year**
4.f. PAYROLL			
Construction Payroll	$ 89,000 per job	$ 2,492,000	per year
Payroll for Indirect Employment	$ 45,000 per job	$ 1,755,000	per year
Land Sales		n.e.	
Total Payroll		**$ 4,247,000**	**per year**

[1] Before realizing profits, developers must pay a number of development-related costs in addition to construction costs. These "Other Development Costs" include planning, permitting, design, financing, County and State exactions, marketing, and sales commissions.

Table 5. Economic Impacts of Operations at Full Development

(Values in 2018 dollars)

Item	Source or Multiplier	Amount	Units
5.a. ON-SITE ECONOMIC ACTIVITIES			
Development Area			
Light Industrial Area			
Light Industrial Uses		300,000	sq. ft.
Warehouses		150,000	sq. ft.
Baseyards		20	acres
Reserve		20	acres
Heavy Industrial Area			
Heavy Industrial Uses		300,000	sq. ft.
Warehouses		150,000	sq. ft.
Baseyards		20	acres
Reserve		20	acres
Existing Businesses Relocating from Other Locations			
Light Industrial Area			
Light Industrial Uses	5% of Households x 1,000 sq. ft.	62,300	sq. ft.
Warehouses		-	sq. ft.
Baseyards		-	acres
Reserve		-	acres
Heavy Industrial Area			
Heavy Industrial Uses		-	sq. ft.
Warehouses		-	sq. ft.
Baseyards		-	acres
Reserve		-	acres
Net New Occupied Area			
Light Industrial Area			
Light Industrial Uses		237,700	sq. ft.
Warehouses		150,000	sq. ft.
Baseyards		20	acres
Reserve		20	acres
Heavy Industrial Area			
Heavy Industrial Uses		300,000	sq. ft.
Warehouses		150,000	sq. ft.
Baseyards		20	acres
Reserve		20	acres
5.b. REVENUE			
Light Industrial Area			
Light Industrial Uses	$ 150 per sq. ft.	$ 45,000,000	per year
New Businesses	$ 150 per sq. ft.	$ 35,655,000	per year
Existing Businesses (Relocated from other locations)	$ 150 per sq. ft.	$ 9,345,000	per year
Warehouses		n.e.	
Baseyards		n.e.	
Reserve		n.e.	
Heavy Industrial Area			
Heavy Industrial Uses	$ 150 per sq. ft.	$ 45,000,000	
New Businesses	$ 150 per sq. ft.	$ 45,000,000	per year
Existing Businesses (Relocated from other locations)	$ 150 per sq. ft.	$ -	per year
Warehouses		n.e.	
Baseyards		n.e.	
Reserve		n.e.	
Total Revenue, On-Site		**$ 90,000,000**	**per year**
Total Revenue, Net New		**$ 80,655,000**	**per year**
5.c. PROFIT			
Profit, On Site	10% of revenues	**$ 9,000,000**	**per year**
Profit, Net New	10% of revenues	**$ 8,065,500**	**per year**

Table 5. Economic Impacts of Operations at Full Development

(Values in 2018 dollars)
(continued)

Item	Source or Multiplier	Amount	Units
5.d. EMPLOYMENT			
Light Industrial Area			
Light Industrial Uses	1,500 sf per emp.	200	jobs
New Businesses	1,500 sf per emp.	160	jobs
Existing Businesses (Relocated from other locations)	1,500 sf per emp.	40	jobs
Warehouses		n.e.	
Baseyards		n.e.	
Reserve		n.e.	
Heavy Industrial Area			
Heavy Industrial Uses	1,500 sf per emp.	200	jobs
New Businesses	1,500 sf per emp.	200	jobs
Existing Businesses (Relocated from other locations)	1,500 sf per emp.	-	jobs
Warehouses		n.e.	
Baseyards		n.e.	
Reserve		n.e.	
Total Employment, On Site		**400**	**jobs**
Total Employment, Net New		**360**	**jobs**
5. e. PAYROLL			
Light Industrial Area	$ 45,000 per job	$ 9,000,000	per year
New Businesses	$ 45,000 per job	$ 7,200,000	per year
Existing Businesses (Relocated from other locations)	$ 45,000 per job	$ 1,800,000	per year
Heavy Industrial Area	$ 45,000 per job	$ 9,000,000	per year
New Businesses	$ 45,000 per job	$ 9,000,000	per year
Existing Businesses (Relocated from other locations)	$ 45,000 per job	$ -	per year
Total Payroll, On Site		**$ 18,000,000**	**per year**
Total Payroll, Net New		**$ 16,200,000**	**per year**
5.f. SUPPORTED POPULATION AND HOUSING			
Total Employment, Net New	Table 5, Section 5.a	360	jobs
Supported Population	2.57 per new job	930	residents
Housing for Supported Population	0.39 per resident	360	homes
5.g. RENTAL INCOME			
Total Rental Income		n.e.	

Table 6. Impacts on County Revenues and Expenditures

(Values in 2018 dollars)

Item	Source or Multiplier	Amount	Units
6.a. DEVELOPMENT ACTIVITIES			
Revenues, Cumulative			
Total Revenues, Cumulative		n.e.	see text
Expenditures, Cumulative			
Total Expenditures [1]		n.e.	see text
Net Impact Cumulative		n.e.	see text
6.b. OPERATIONS AT FULL DEVELOPMENT			
Tax and Expenditure Base			
Taxable Property Value			
Light Industrial Area	Table 4, Section 4.b. and 4.f.	135,000,000	
Heavy Industrial Area	Table 4, Section 4.b. and 4.f.	$ 135,000,000	
Total Property Value		**$ 270,000,000**	
Revenues, Annual			
Property Taxes			
Property Tax Revenue	$ 7.45 per $1,000	$ 2,011,500	per year
Less Current Taxes	County of Maui	$ (440)	per year
Net New Property Taxes		**$ 2,011,060**	**per year**
Expenditures, Annual			
Total Expenditures		**n.e.**	see text
Net Revenues, Annual		**$ 2,011,060**	**per year**

[1] Infrastructure will be built by Pulama Lanai.

Table 7. Impacts on State Revenues and Expenditures

(Values in 2018 dollars)

Item	Source or Multiplier	Amount	Units
7.a. DEVELOPMENT ACTIVITIES			
Tax and Expenditure Base			
Duration	Table 4, Section 4.a	30	years
Final Sales			
Construction Related Final Sales	Table 4, Section 4.b	$ 13,655,250	per year
Land Sales	Table 4, Section 4.c	$ 3,500,000	per year
Total Final Sales		$ 17,155,250	per year
Intermediate Sales	Table 4, Section 4.b	$ 3,697,450	per year
Profits	Table 4, Section 4.d	$ 2,301,270	per year
Payroll	Table 4, Section 4.f	$ 4,247,000	per year
Revenues, Average Annual			
Excise Tax			
Final Sales	4.0% of sales and property sales	$ 686,200	per year
Intermediate Sales	0.5% of sales	$ 18,500	per year
Corporate Income Taxes	1.0% of profits	$ 23,000	per year
Personal Income Taxes	4.8% of income	$ 203,900	per year
Conveyance Taxes	0.3% of property sales	$ 10,500	per year
Total Revenues		**$ 942,100**	**per year**
Revenues, Cumulative		**$ 28,263,000**	
Expenditures			
Total Expenditures [1]		n.e.	
Net Impact, Annual Average		**$ 942,100**	**per year**
Net Impact, Cumulative		**$ 28,263,000**	
7.c. OPERATIONS AT FULL DEVELOPMENT			
Tax and Expenditure Base			
Sales Revenue, Net New	Table 5, Section 5.b	$ 80,655,000	per year
Profits (on-site activities), Net New	Table 5, Section 5.c	$ 8,065,500	per year
Employment, Net New	Table 5, Section 5.d	360	jobs
Payroll, Net New	Table 5, Section 5.e	$ 16,200,000	per year
Revenues, Net New, Annual			
Excise Tax			
Final Sales	4.0% x 50% of sales	$ 1,613,100	per year
Intermediate Sales	0.5% x 50% of sales	$ 201,600	per year
Corporate Income Tax	1.0% of profit	$ 80,700	per year
Personal Income Tax	4.8% of income	$ 777,600	per year
Total Tax Revenue, Net New		**$ 1,895,400**	**per year**
Expenditures, Annual			
Total Expenditures		**n.e.**	see text
Net Revenues, Annual		**$ 1,895,400**	**per year**