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Economic Impact Analysis of Developing 242-Acre Site in Clermont County for Industrial Use

Prepared for

Clermont County, CIC, Inc.

Prepared by

The Economics Center

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ECONOMIC AND FISCAL IMPACTS

A 242-acre site in Clermont County is to be converted to light industrial use over a ten-year period. Table 1 contains the calculated economic impacts of this development for every year of the project. Year one represents the first year of construction, with a mix of manufacturing uses phased in over the following ten years. Thus, years one through ten contain the impacts of construction, years two through ten hold the impacts of both construction and manufacturing operations, and year eleven is the culmination of the ten-year phase-in of manufacturing activities.

Based on the lot coverage of a similar set of parcels, the total coverage of the developed site was assumed to be 22% when fully built out, meaning a total of 53 acres of the site will support light industrial activities. Those activities were assumed to include a range of light manufacturing and warehousing industries, with current shares of employment in Clermont County assumed to reflect the proportion of each industry's share of the finished site's land usage. Ten percent of the acreage is dedicated to transportation and warehousing.

Table 1: Total Economic Impacts of Construction and Operations of 242-Acre Industrial Site in Clermont County, Phased in Over Ten Years

	Year 1	Year 2	Year 3	Year 4	Year <u>5</u>	Year 6
Direct Output	\$13,451,000	\$78,801,000	\$144,150,000	\$209,500,000	\$274,850,000	\$340,200,000
Direct Earnings	\$2,661,000	\$14,088,000	\$25,515,000	\$36,942,000	\$48,370,000	\$59,797,000
Direct Jobs	50	236	421	607	792	978
Indirect Output	\$7,376,000	\$94,074,000	\$180,772,000	\$267,470,000	\$354,167,000	\$440,865,000
Indirect Earnings	\$1,327,000	\$8,589,000	\$15,851,000	\$23,113,000	\$30,375,000	\$37,637,000
Indirect Jobs	36	203	371	538	706	8 ₇₃
Final Output	\$20,827,000	\$172,875,000	\$324,922,000	\$476,970,000	\$629,017,000	\$781,065,000
Final Earnings	\$3,988,000	\$22,677,000	\$41,366,000	\$60,055,000	\$ 78 , 745 , 000	\$97,434,000
Final Jobs	86	439	792	1,145	1,498	1,851
	Year 7	Year 8	<u>Year 9</u>	Year 10	<u>Year 11</u>	
Direct Output	\$405,549,000	\$470,899,000	\$536,249,000	\$601,599,000	\$653,497,000	
Direct Earnings	\$71,224,000	\$82,651,000	\$94,078,000	\$105,505,000	\$114,271, 000	
Direct Jobs	1,164	1, 349	1,535	1,720	1,855	
Indirect Output	\$527,564,000	\$614,261,000	\$700,959,000	\$787,656,000	\$866,979,000	
Indirect Earnings	\$44,899,000	\$52,161,000	\$59,424,000	\$66,686,000	\$72,622,000	
Indirect Jobs	1,040	1,208	1,375	1,543	1,675	
Final Output	\$933,113,000	\$1,085,160,000	\$1,237,208,000	\$1,389,255,000	\$1,520,476,000	
Final Earnings	\$116,123,000	\$134,812,000	\$153,502,000	\$172,191,000	\$186,893,000	
Final Jobs	2,204	2 , 557	2,910	3,263	3,530	

Source: Calculated by Author using BEA RIMS II Multipliers

Table 1 shows the direct, indirect, and total impacts of total development of the entire site. The direct impact stems from the construction and manufacturing spending on the site itself.

The indirect impacts reflect the results that that spending has on the rest of Clermont County's economy. Adding the two sets of impacts gives the total economic that was calculated for building out of the 242-acre site. Table 2 breaks out the impacts into the full impacts of site construction, and the peak year of manufacturing operations following full build-out. Development of the site itself will generate \$208 million in economic activity and 863 jobs. Once the site is fully developed, with the various manufacturing industries at capacity, the site's output will top \$653 million, and will hold 1,855 jobs. A further \$867 million in economic value will be created in Clermont County's economy, with an additional 1,675 jobs. In total, therefore, every year of full operations on the finished site will result in \$1.5 billion in economic activity is calculated in Clermont County, supporting 3,530 jobs.

Table 2. Total Impact of Construction and Peak Operations							
	Construction	Operations					
Direct Output	\$134,509,795	\$653,497,000					
Direct Earnings	\$26,610,392	\$114,271,000					
Direct Jobs	504	1,855					
Indirect Output	\$73,760,516	\$866,979,000					
Indirect Earnings	\$13,265,158	\$72,622,000					
Indirect Jobs	359	1,675					
Final Output	\$208,270,311	\$1,520,476,000					
Final Earnings	\$39,875,550	\$186,893,000					
Final Jobs	863	3,530					

Source: Calculated by Author using BEA RIMS II Multipliers

Table 3 shows the increased property value that will result from the improvements made to the 242-acre site. Over the ten-year development period, assuming costs of \$60 per square foot, \$134.5 million will be spent on developing the site. Assuming 70% of that cost to be the true property value increase, the site's property value will increase \$94,156,860 after ten years, or one-tenth of that following every full year of construction. Therefore, Clermont County can expect to receive an additional \$582,030 in property tax revenue for every year of development, for a total of \$32 million over the life of the development.

Table 3. Property Value and Fiscal Impact by Year

Year	Property Value Increase	Fiscal Impact*	
Year 1	\$0	\$0	
Year 2	\$9,415,686	\$582,030	
Year 3	\$18,831,371	\$1,164,060	
Year 4	\$28,247,057	\$1,746,090	
Year 5	\$37,662,743	\$2,328,121	
Year 6	\$47,078,428	\$2,910,151	
Year 7	\$56,494,114	\$3,492,181	
Year 8	\$65,909,800	\$4,074,211	
Year 9	\$75,325,485	\$4,656,241	
Year 10	\$84,741,171	\$5,238,271	
Year 11	\$94,156,857	\$5,820,301	
Total	\$94,156,857	\$32,011,658	

Source: Calculated by Author

*Does not take into account depreciation

BROWN AND ADAMS COUNTIES WORKERS' SHARE

Since a share of Clermont County's workers currently come from Brown and Adams Counties, it can be assumed that a share of the 1,855 manufacturing jobs created through site's development will be filled by residents of those counties. As Table 4 shows, in 2013 approximately 13% of Clermont County's 5,019 manufacturing jobs were filled by residents of Brown and Adams Counties, or 629 workers. As of June 2015, 5,760 people were employed in Clermont County manufacturing firms. Thus, if a further 1,855 jobs are to be created, totaling 7,615, and assuming nearly 13% of those will be filled from Brown and Adams Counties, 954 Clermont County manufacturing workers will live in one of those two counties when the project reaches full operation after ten years. Therefore, 232 more manufacturing workers will come from Brown and Adams Counties than do at present.

1

¹ This figure comes from the Bureau of Labor Statistics' preliminary figures from the second quarter's Quarterly Census of Employment and Wages.

Table 4: Share of Clermont Manufacturing Workers Residing in Brown and Adams Counties, Current and Projected

	2013	2015	Project Final
Total Manufacturing Employment	5,019	5,760	7,615
Brown and Adams Residents	629	722	954
Share of Total	12.6%	12.6%	12.6%

Source: Census Bureau's Longitudinal Employer-Household Dynamics, BLS's Quarterly Census of Employment and Wages

METHODOLOGY

Economic impact figures represent the effects that a given development project and its associated economic activities have upon a surrounding community. The dollars spent by an organization and its employees circulate within a local economy by being spent on goods and services provided by local businesses, which are in turn spent at other establishments and by local households. Moreover, a given industry's output in the local economy is defined as the total dollar figure that is spent within the local economy to make a final product. Therefore, a project's final output impact calculation shows all the dollars that are newly flowing in the local economy to other industries and households as a result of the project's new activities.

The Economics Center calculated the impact of the project's construction and operations using estimates of these costs provided by the client. These data were used in an input-output model, which measures goods and services produced in each industry and the use of those goods and services by other industries and households.

Input-output models give a picture of the direct and indirect impacts of a given business or organization. The direct impacts of the project are measured in terms of the total costs of developing the 242-acre site in terms of the wages paid to employees hired with those monies, as well as the new tourist dollars. In turn, the construction and manufacturing activities support jobs and spending in other industries, which are the indirect impacts of the project's activities. Finally, the direct and indirect impacts of inter-industry relationships create induced impacts of due to the spending of private households.

Multipliers are figures that represent all the inter-industry and household economic relationships measured in the input-output model. For every dollar spent by a given organization in a particular industry, multipliers reflect how many more dollars will be spent in

a local economy by other businesses and households, thereby determining the total economic impact of a project or investment. The multipliers reflect two sets of economic impacts: First, the direct effect number of jobs and wages; and second, the final effects, which add the indirect and induced impacts to the direct ones.

For this project, multipliers were derived from an input-output model created by the Bureau of Economic Analysis (BEA), a part of the U.S. Department of Commerce. This model, its constituent tables, and resulting multipliers are part of the BEA's RIMS II project (Regional Industrial Multiplier System), which covers both the state and county levels throughout the United States.

Each industry in a given locale has its own multiplier, reflecting its relationship to the rest of the local economy. Developing the site and its future manufacturing represent activity in a number of different industries, and applying the relevant multipliers for each industry allowed the Economics Center to give a realistic picture of the economic impact of what the development will add to the local economy.

For instance, Construction has an industry code of 23, and this industry has a final-demand spending multiplier of 1.58, which means that for every \$1 million spent by that industry in Hamilton County, another \$580,000 of economic activity results. Additionally, this industry has an employment multiplier of 6.4; so, for every \$1 million spent in Construction, approximately 6 jobs are supported annually in the rest of the economy.

Project Staff

Joel Benedetti, Research Associate
Julie Heath, PhD, Executive Director
Chris Nicak, Research Associate

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