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**ECONOMIC IMPACT STUDY OF THE  
PROPOSED KING ROAD AGGREGATE MINE,  
INGLIS, LEVY COUNTY, FLORIDA**

**BY**

**Michael McElveen, MAI**

**January 18, 2010**



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January 19, 2010

Mr. Albert Townsend  
Tarmac America, LLC  
455 Fairway Drive  
Deerfield Beach, FL 33441

**RE: Economic Impact Study of Proposed King Road Aggregate Mine, Inglis,  
Levy County, Florida**

Dear Mr. Townsend:

As requested, a detailed investigation and economic impact study have been made of the proposed King Road Aggregate Mine on Levy County, Florida. Included within the accompanying summary report are exhibits and documented data in support of my conclusions. All material collected during the analysis has been retained in my work file and is available for inspection.

The opportunity to have been of service is appreciated. If you have any questions or comments or require additional information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Michael A. McElveen', with a stylized flourish at the end.

Michael A. McElveen, MAI  
State Certified General Appraiser RZ0360

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## IDENTIFICATION OF THE ASSIGNMENT

### Economic Benefits

An economic benefit is a benefit that is quantifiable in terms of money, such as revenue, net cash flow or net income. In other words an economic impact study measures the importance of the proposed King Road Aggregate Mine on the economy of Levy County, Florida. Economic benefits can be allocated into employment, direct impacts, indirect impacts, or induced impacts.

Input-output (I-O) analysis uses an economic model that allows the assessment of change in overall economic activity as a result of some corresponding change in one or several activities. In this study the change is the development and operation of the King Road Aggregate Mine and its' economic impact on the Levy County economy.

Direct impacts are the consequences of economic activity carried out at the King Road Aggregate Mine. Examples of this include revenue, taxes/licenses/fees, wages and salaries, fees, supplier contracts, outside supplier contracts, etc.

Indirect impacts are derived from off-site activities that can be attributed to the King Road Aggregate Mine. Like direct impacts, indirect impacts represent economic activity that would not have occurred in the absence of the King Road Aggregate Mine.

Induced impacts result from the multiplier effect of the direct and indirect impacts. That is, the increase in economic activity is caused by the direct and indirect impacts as successive rounds of spending occur from the initial expenditures on-site. For example, most of the take home pay of employees is spent locally. The employee spending creates additional employment within Levy County as they purchase additional goods and services. Thus, each new dollar of wages and salaries becomes income to successive rounds of individuals or businesses within Levy County.

### Objectives

The objectives of this economic impact analysis of the proposed King Road Aggregate Mine are to:

- Construct input-output (I-O) models for Levy County.
- Use the estimated cost of construction of the mine and the I-O model multipliers, to estimate the one time specific and total economic impacts of the development of the King Road Aggregate Mine as proposed, on the Levy County economy.
- Use the estimated recurring expenditures and/or revenues and I-O model multipliers, to estimate specific and total economic impacts of the development as proposed on the Levy County economy.
- Estimate the impacts of the King Road Aggregate Mine on Levy County tax revenues.

## Scope

Data collection efforts began during initial consultations with executives of Tarmac America, LLC. Data was obtained from Tarmac America as to the proposed cost of construction of the aggregate mine infrastructure, building improvements, cost of equipment, staffing, annual excavation, and sales of limestone aggregate and operating expenses. We have consulted with the following third parties:

- Levy County Property Appraiser's office,
- Withlacoochee Regional Planning Counsel,
- Levy County Tax Collector,
- Florida Department of Revenue,
- Marshall and Swift Cost Manual,
- Florida Limerock & Aggregate Institute,
- STDB.com,
- United States Bureau of Labor Statistics,
- State of Florida, Agency for Workforce Innovation,
- University of Florida, Bureau of Economics and Business Research,

Once data collection efforts were exhausted and the study area defined, revenue, expenditure and employment data were compiled in computer spreadsheets and allocated to appropriate time periods, industry and institutional sectors, then as local or non-local dollars. Input-output models were then constructed for Levy County. These models were often used to calculate sector-specific economic multipliers, which were then applied to the estimated revenues, expenditures, or employment data to calculate economic impacts.

The estimated impacts for output value-added, income, employment, and business taxes were reported by two-digit North American Industry Classification System (NAICS)<sup>1</sup> aggregate sectors.

## Methodology of Analysis

The time period covered by this analysis runs from the starting of construction activities at the development in 2010 through the estimated mine life of 100 years. Business activities incorporated into this analysis include: construction costs for the development, continuing excavation of limerock, and reported and estimated expenses at the King Road Mine. Cumulative dollar amounts for total impacts over this period are reported in 2010 equivalent dollars. Job numbers reported represent combined fulltime, part time, and seasonal jobs on an annual basis (full time equivalent).

This analysis only considers the positive economic value, in terms of dollars or jobs, resulting from business activities that occur at the King Road Aggregate Mine. This study does not

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<sup>1</sup>The North American Industry Classification System (NAICS) was developed as the standard for use by federal statistical agencies in classifying business establishments for the collection, analysis, and publication of statistical data related to the economy of the United States.

account for any costs to the government or surrounding community resulting from the development. Input-output modeling is static in nature. This study does not evaluate the speed with which one economic activity will affect others. Indirect and induced impacts may take weeks, months, or years to conclude. Possible effects on regional prices for goods, services, or real estate are not factored into, or predicted by, standard I-O analysis. Estimates of indirect and induced impacts calculated by the model are largely based on national averages and their accuracy rests on the assumption that the economic relationships between business and institutions in the study area are similar to those of the national economy. Verifying or validating data provided by clients, affiliated businesses and local government agencies was beyond the scope of the study.

### **King Road Aggregate Mine Description**

The King Road Aggregate Mine is located approximately 1.25 miles west of U.S. Highway 19 and 5 miles north of County Road 40 in Inglis, Levy County, Florida. As proposed, the total King Road Aggregate Mine land area distribution is as follows:

**Table 1**

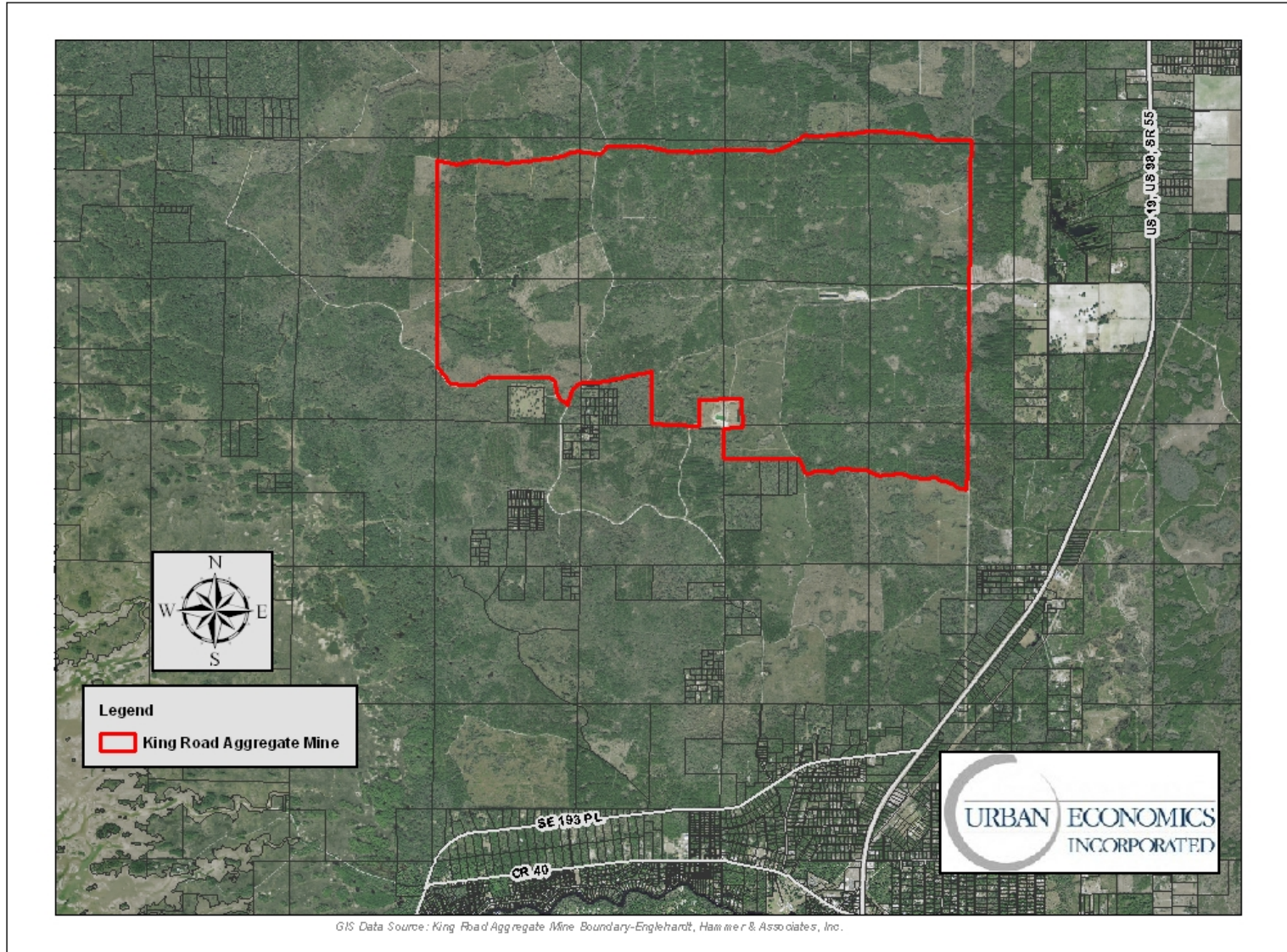
#### **King Road Mine Land Area**

Land Area (Acres)	
Total Project	9,277
Disturbed	<u>3,899</u>
Mined	2,700
Buffer/Roads/Plant	1,199

Approximately 25 acres of the 2,700-acre mine area will be mined each year with an extraction producing approximately 3 million tons of salable aggregate each year. The following Aerial Photograph depicts the location and configuration of the mine area.

Exhibit 1

King Road Aggregate Mine Location





## Study Area Definition and Review

In late 2009, executives of Tarmac America, LLC requested Urban Economics, Inc., to evaluate the economic impact of business activities and the construction on the Levy County economy of the proposed King Road Aggregate Mine. An economic impact analysis can provide a more comprehensive assessment of how specific events or business activities affect other businesses and institutions within a defined economy.

The study area chosen for an economic impact analysis can have a significant effect on its results. To adequately capture the economic impacts of an event or business activity, it is important to include the geographic areas where workers and business owners live and spend their earnings. Generally, the smaller the study area the smaller the economic impacts because more material inputs and labor will have to be “imported” into the smaller study area to carryout the activity and will result in dollars flowing out of the area. The study area chosen for the economic impact analysis is Levy County.

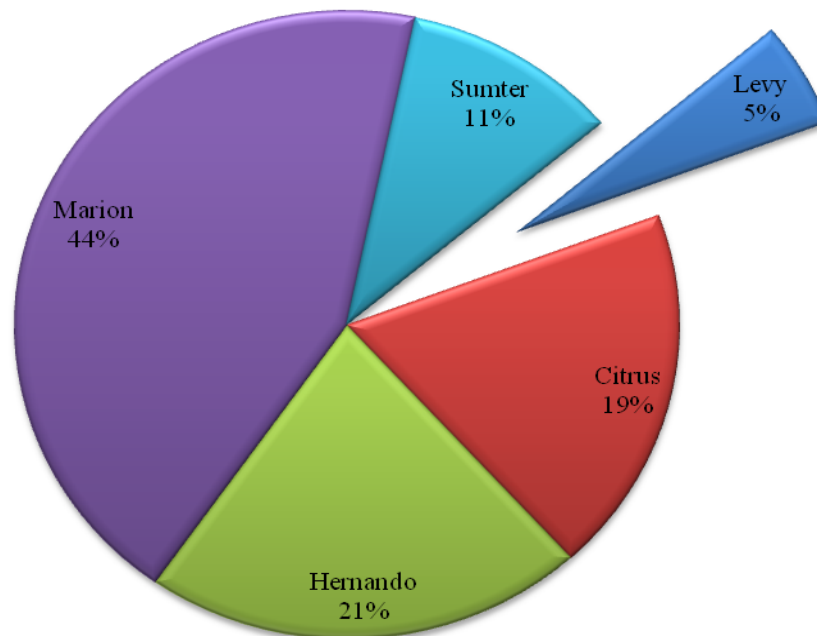
Levy County is part of the five-county Withlacoochee Regional Area, which is comprised of Citrus, Hernando, Levy, Marion, and Sumter Counties. The Withlacoochee Region Area is dominated by Marion County, which has approximately 43.5 percent of the region’s population. Levy County is located in central west Florida along the Gulf of Mexico, north of the Tampa Bay area and west of central Florida. Levy County is relatively rural with an estimated 2009 population density of 29.2 persons per square mile, which is significantly less than the average Withlacoochee regional population density of 159.3 persons per square mile. Levy County has several small incorporated areas; Bronson, Cedar Key, Chiefland, Fanning Springs, Inglis, Otter Creek, Williston, and Yankeetown. These incorporated areas account for 25.2 percent of the population of Levy County. Williston is the largest city with an estimated 2009 population of 2,425 persons.<sup>2</sup>

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<sup>2</sup> The University of Florida Bureau of Economic and Business Research, *Florida Statistical Abstract 2007*, Table 1.25, p. 20

Chart 1

## Withlacoochee Region Population Distribution



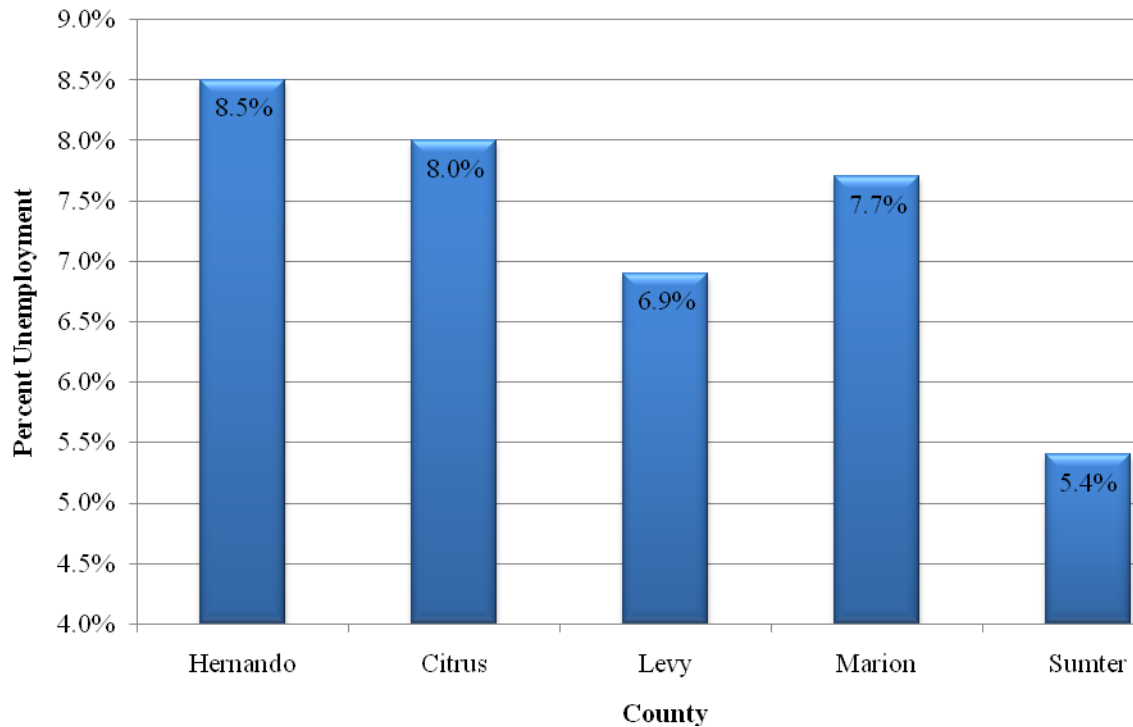
Levy County had an estimated 2009 population of 41,293 persons and this population count is projected to increase 8.8 percent to 44,936 persons by 2014. The Levy County population growth is expected to be less than the population growth in the Withlacoochee region between 2009 and 2014 of 14.5 percent.

In 2008, Levy County had a labor force of 17,103 persons, of which, on average 15,922 persons were employed indicating an average 2008 unemployment rate of 6.9 percent.<sup>3</sup> Levy County's average labor force was by far the smallest of the five county Withlacoochee Regional Area, accounting for only 5.6 percent of the regional labor force. The average 2008 unemployment rate in Levy County was 6.9 percent, which was the second lowest unemployment rate of the five county area and 80 basis points less than the Withlacoochee Regional Area 2008 unemployment rate of 7.7 percent.

<sup>3</sup> State of Florida Agency for Workforce Innovation-Local Area Unemployment Statistics, <http://www.labormarketinfo.com/library/laus.htm>.

Chart 2

## 2008 Withlacoochee Region Unemployment Rate



The largest industry employer in Levy County is the services industry with 45.8 percent of the employed, followed by retail trade with 12.4 percent. Agriculture/mining accounts for 5.6 percent of the employed in Levy County. Levy County has a higher percentage of employed in the agriculture/mining, construction, and public administration industries, and lower representation in construction, retail trade, information services, and finance/insurance/real estate.

The ten largest industries in Levy County by output are as follows:

**Table 2****Top Ten Levy County Industries**

Sector	Description	Employment	Labor Income	Output
438	Employment & Payroll (state & local gov., education)	1,580	\$ 71,957,100	\$ 81,501,160
413	Food services & drinking places	713	\$ 10,441,800	\$ 33,866,720
329	Retail Store - General Merchandise	507	\$ 12,436,730	\$ 28,497,740
324	Retail Store - Food & Beverage	390	\$ 8,187,095	\$ 20,336,790
335	Transport by Truck	377	\$ 8,650,610	\$ 32,989,840
34	Construction of New Res/Comm & Healthcare	334	\$ 13,522,830	\$ 45,181,090
423	Religious Organizations	323	\$ 4,153,691	\$ 39,448,640
437	Employment & Payroll (state & local gov., non-education)	301	\$ 15,512,070	\$ 17,569,520
291	Boat Building	298	\$ 12,694,430	\$ 70,826,760
19	Support Activities for Agriculture & Forestry	296	\$ 7,577,333	\$ 7,305,807

The largest industry in Levy County is state/local government and education with 1,580 employed and 2008 labor income of \$71,957,100. Labor income represents all forms of employment income and is the sum of employee compensation and proprietor income. This employment category dwarfs the largest private sector industry of construction of new residential, commercial and healthcare with a 2008 total labor income of \$13,522,830.

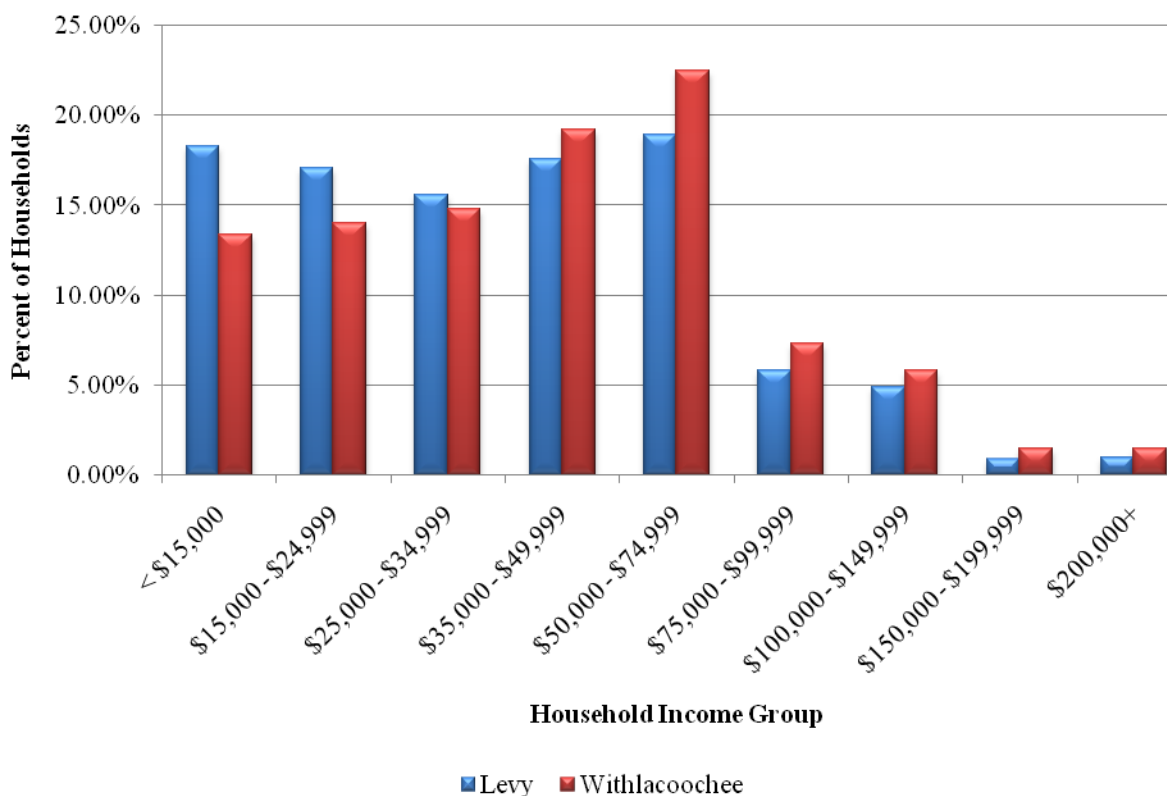
Employment and payroll for state and local government and education has a 2008 output of \$81,501,160. Industry output represents the value of an industry's total production. The largest private industry by output is construction of new residential, commercial and healthcare with a total industry output of \$45,181,090.

The estimated 2009 per capita income within Levy County was \$18,331 and this per capita income is projected to increase 4.0 percent to \$19,066 by 2014. Levy County per capita income is 17.4 percent less than the Withlacoochee Regional Area per capita income in 2009 of \$22,183.

In Levy County the 2009 estimated largest household income category was the \$50,000 to \$74,999 category comprising 18.1 percent of Levy County households. This household income category is followed by the \$15,000 to \$24,999 household income group, which comprised 18.3 percent of Levy County households. Levy County has greater representation of household income groups less than \$34,999 and lower representation in all other household income groups.

Chart 3

## Household Income Distribution



Within Levy County in 2009, there were an estimated 20,039 housing units, of which, 84.2 percent of the housing units are occupied. Of the housing units in Levy County, 69.9 percent are owner-occupied and 14.3 percent renter-occupied.

The estimated 2009 median net worth in Levy County is \$65,073, which is 40.3 percent less than the median net worth in the Withlacoochee regional area of \$108,910.

### Aggregate and Crushed Stone Market Overview

Crushed rock and limestone are materials used in the production of a wide variety of building products. Ready mixed and block producers consume 55 percent of all limestone aggregate, followed by road construction contractors and asphalt producers, then precast concrete producers. Because aggregate is primarily a component in building materials, demand for aggregate is driven by population growth. The State of Florida is the third largest consumer of crushed rock products in the United States. Florida road building and construction industries are expected to consume about 143 million short tons of crushed stone per year.

Approximately 120 million tons are produced from mines in the State of Florida; 8 million tons are imported from U.S. domestic sources, and 5 million tons are imported internationally. Crushed stone in Florida is produced from limestone that is mined or extracted from naturally occurring deposits in 22 counties. Approximately 93.0 percent of crushed stone material used by the road building and construction industries in Florida is mined within the state, and 43.0 percent of this total comes from the “Lake belt” area comprised of Miami-Dade County and Southeast Florida because of the characteristics of the rock resource.

The single largest user of crushed stone in Florida is the Florida Department of Transportation with approximately 42 million tons of limestone going into the construction of roads, bridges, runways, and other infrastructure each year. It is estimated that each person in Florida requires 10 tons of aggregate each year.<sup>4</sup> A residential home requires 30 tons of aggregate; one mile of a typical two-lane asphalt road as an aggregate base requires about 25,000 tons.

Crushed stone is a high volume, low value commodity. The industry is highly competitive and is characterized by thousands of operations serving local and regional markets. Production costs are determined mainly by the cost of labor, equipment, energy and water, in addition to the cost of compliance with environmental and safety regulations. Despite having one of the lowest averages per ton value of all mineral commodities, the constant dollar price of crushed stone has changed relatively little over the past 20 years. Transportation is a major factor in the delivered price of crushed stone. The cost of moving crushed stone from the plant to the market often equals or exceeds the sale price of the product at the plant. Because of the high cost of transportation and the large quantities of bulk materials that have to be shipped, crushed stone is usually marketed locally. The high cost of transportation is responsible for a wide dispersion of quarries around the county, usually located near highly populated areas.

### **King Road Aggregate Mine – Mine Cycle Description**

As proposed, the King Road Aggregate Mine-Mine Cycle is comprised of six steps:

- Stripping overburden
- Drilling and blasting
- Excavation
- Crushing and conveying
- Processing
- Shipping

All rock mining in Florida is “surface mining.” The overburden is removed down to the limestone with bulldozers and front-end loaders, exposing the limestone resource for

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<sup>4</sup> North Carolina Geological Survey web site:  
<http://www.geology.enr.state.nc.us/NAE%20aggregates%20internet%20NRC%20with%20USGS%20sheet/Aggregate%20overview%20new.htm>.

excavation. Overburden is the vegetation and sand that forms a layer on top of the limestone deposit. The overburden is removed to prevent co-mingling with rock or sand and degradation of the aggregate quality. At the King Road Aggregate Mine, the overburden varies in depth but is typically about 2 feet thick. . The overburden is then transported to a stockpile for later use in restoration and reclamation of the excavated areas.

Because of the hardness of the limestone in Levy County, to fracture the limestone so that it can be excavated, holes are drilled into the limestone at regular intervals to a depth of 125 feet. The drilled holes are filled with ammonium nitrate, which is then detonated (shot) in sequential order so that the limestone is fractured making it easier to be excavated. The excavation of the limestone takes place with a dragline with a 90 cubic yard bucket. The dragline is electric powered, being connected directly to the power supply for the mine by a trailing cable. The dragline will dig long narrow lakes to a maximum depth of 120 feet and with an average width of 175 feet. The limestone material scooped up by the dragline is stockpiled close to the dragline in long narrow rows where it will sit for several weeks to allow water to drain.

After the limestone has been allowed to drain, it is moved by a front-end loader to a mobile crusher. The crusher is electric powered via a trailing cable similar to the dragline. The crusher will reduce the raw excavated limestone rock to a maximum size of 8 inches in diameter. The crushed limestone leaving the crusher will fall on a mobile conveyor belt that transfers the limestone to the primary crushing plant.

Limestone transferred to the primary crushing plant will be washed and screened to separate the aggregate into different sizes. Conveyor belts will move rock and sand that are not used to a holding area. Fifty percent of the total material mined will be pumped back into the pits as fill material. Once the limestone material has been screened into sizes, the material is dried and loaded onto dump trucks and transported to consumers.



## LEVY COUNTY IMPACT ANALYSIS

The economic impacts of the King Road Aggregate Mine analysis were calculated with input-output models, which mathematically describe and quantify the economic resources and interactions of a specified economy. Once constructed, such models can be used to generate multipliers that estimate how revenues or employment for one or more particular businesses or events impact all businesses and institutions in that economy.

Urban Economics, Inc., is a licensed user of IMPLAN Pro, Version 3.0.2.1.<sup>5</sup>, Economic Impact Modeling System, which includes computational input-output software and detailed county level databases of economic activity. The databases include statistics for 531 different sectors<sup>6</sup> of the economy, representing industry, government, and households. The current and latest available model year for IMPLAN Pro is 2008.

The major types of economic impacts associated with I-O models include output, value added, labor, indirect business taxes, and employment. These impacts may occur directly, indirectly, or be induced. Total economic impacts of an event or activity equal the sum of these direct, indirect, and induced effects. Output impacts represent the total value of revenues or expenditures associated with the activity under investigation. Value-added impacts measure labor income, property income, and indirect business taxes resulting from these revenues. The labor income component of value-added represents earnings by employees' proprietors of the impacted businesses. Indirect business taxes include excise, property, and sales taxes, as well as licenses and fees paid by businesses, but do not include taxes on profits or income. Employment impacts approximate the number of fulltime, part time, and seasonal jobs (full time equivalent jobs) created by an economic activity on an annual basis. Each of these measures represents a different way of assessing the size or contribution of a particular activity to the Levy County economy.

Total annual taxes/fees/permits/licenses from both direct and indirect sources as a result of the King Road Aggregate mine is estimated at \$4,211,486 per annum.

### **Economic Impact of King Road Aggregate Mine Construction – One Time Event**

Construction costs for the King Road Aggregate Mine as proposed were provided by Tarmac America, LLC. The construction costs do not include Tarmac's purchasing of mobile equipment that will occur outside of Levy County. IMPLAN Version 3.0.2.1 provides six industry sectors that encompass the planned mine development activities. Where a specific industry sector was not available for Levy County, an analogous industry sector was used. Industry sectors used in the impact analysis include sector 34 construction of new non-residential commercial and healthcare, sector 35 construction of new non-residential manufacturing structures, sector 31 electric power generation transmission and distribution and, sector 369 architectural, engineering, and related

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<sup>5</sup> Minnesota IMPLAN Group (MIG), 2009. IMPLAN, Economic Impact and Social Accounting Software, and Data for Florida. Stillwater, MN. [www.implan.com](http://www.implan.com), the most current release of the IMPLAN software package, which was used at the time of this analysis, was based on 2008 data.

<sup>6</sup> IMPLAN Pro uses a sectoring scheme similar to the North American Industry classification system.

services. All infrastructure expenditures for the main analysis were assumed to originate from non-local financing, thus representing new dollars entering the local economy.

Following in Table 3 is the estimated construction costs for the analyzed components of the King Road Aggregate Mine.

**Table 3**

**Construction Costs**

Item	Cost
Processing Plant	\$ 34,236,558
Electrical Substation	\$ 6,116,356
King Road	\$ 3,110,000
Buildings	\$ 1,235,223
Quarry/Site Dev./Permitting/Test	\$ 18,975,130
Mitigation Plan	\$ 10,600,000

Source: Tarmac America, LLC.

The total direct effect on Levy County of the one-time construction event is \$74,273,272, and in total, will employ 602 fulltime equivalent jobs, with a direct effect labor income of \$24,769,914. The total value added to the Levy County economy is \$30,459,712.

The indirect effect of the King Road Aggregate Mine development of companies employed in the development purchasing and hiring sub-consultants or subcontractors in the local economy will increase employment by 89 jobs (FTE) and provide total value added to the Levy County economy of \$4,619,104.

The induced effect of the King Road Aggregate Mine construction, which is the multiplying effect of dollars flowing through the Levy County economy, is \$5,572,832. The total effect output is significant at \$92,537,640 in total, and the King Road Aggregate Mine development will create 781 jobs (FTE).

**Table 4****Impact Summary**

Impact Type	Output	Employment	Labor Income	Total Value Added
Direct Effect	\$ 74,273,272	602	\$ 24,769,914	\$ 30,459,712
Indirect Effect	\$ 8,880,433	89	\$ 2,990,166	\$ 4,619,104
Induced Effect	\$ 9,383,935	90	\$ 2,287,446	\$ 5,572,832
<b>Total Effect</b>	<b>\$ 92,537,640</b>	<b>781</b>	<b>\$ 30,047,526</b>	<b>\$ 40,651,648</b>

The biggest impact to Levy County employment will incur in Sector 369 architectural, engineering, and related services with total employment of 344 annual jobs (FTE). This industry is followed by sector 35 construction of new manufacturing structures and sector 34 construction of new commercial and healthcare structures with 226 and 30 annual jobs (FTE).

**Table 5****Top Ten for Employment**

Sector	Description	Total Employment	Total Labor Income	Total Value Added	Total Output
369	Architectural, engineering, & related services	344	\$ 13,159,858	\$ 13,347,685	\$ 30,560,606
35	Construction of new manufacturing structures	226	\$ 9,541,346	\$ 11,590,499	\$ 34,236,560
34	Construction of new commercial & health care structures	30	\$ 1,256,989	\$ 1,433,831	\$ 4,345,223
413	Food services and drinking places	20	\$ 305,711	\$ 448,219	\$ 959,318
31	Electric power generation, transmission, and distribution	14	\$ 1,369,999	\$ 5,007,658	\$ 6,779,008
319	Wholesale trade businesses	12	\$ 469,097	\$ 807,160	\$ 1,327,327
425	Civic, social, professional, and similar organizations	8	\$ 145,307	\$ 84,582	\$ 351,374
354	Monetary authorities & depository credit intermediation activities	8	\$ 395,194	\$ 1,037,476	\$ 1,445,855
368	Accounting, tax preparation, bookkeeping, and payroll services	7	\$ 198,512	\$ 237,986	\$ 439,396
426	Private household operations	6	\$ 34,355	\$ 39,373	\$ 39,807

### **Economic Impact of Continuing Mine Operation**

The direct impacts of economic activity of the proposed King Road Aggregate Mine will be immediate output, value added, income, and jobs generated by plant operations. As discussed in a previous section, indirect and induced effects are only generated when “new” or non-local dollars are introduced into a local economy. Indirect impacts measure the quantity of secondary economic activities that occur when construction firms and the mining operation purchase inputs from other businesses inside Levy County. Further indirect impacts occur as these input suppliers purchase their own inputs from other local businesses. Induced impacts are another set of secondary impacts that occur when households of business owners and employees spend their earnings from these enterprises to purchase consumer goods and services from other businesses within Levy County. Indirect economic impacts indicate how important non-local revenues or expenditures are to area businesses that primarily serve other businesses. Induced impacts point to how significant outside revenues or expenditures are for area businesses that primarily serve consumers.

**Table 6**

#### **Impact Summary**

Impact Type	Output	Employment	Labor Income	Total Value Added
Direct Effect	\$ 86,577,336	35	\$ 2,492,624	\$ 65,413,248
Indirect Effect	\$ 13,446,636	78	\$ 3,663,407	\$ 7,136,000
Induced Effect	\$ 19,933,188	192	\$ 4,814,951	\$ 11,880,704
<b>Total Effect</b>	<b>\$119,957,160</b>	<b>304</b>	<b>\$ 10,970,984</b>	<b>\$ 84,429,824</b>

The annual output direct effect is \$86,577,336. This is the direct change in the Levy County economy based on operator profit at the mine and labor income. The direct employment at the King Road Aggregate Mine on an annual basis is 35 FTE positions with a labor income of \$2,492,624. This is an estimate of the direct change in labor income for change in final demand. The direct effect of total value added of the King Road Aggregate Mine purchasing from local industries is \$65,413,248.

The indirect impacts are those resulting from the interaction of local industries purchasing from other local industries. The additional output indirect effect is \$13,446,636, and an increase in Levy County employment of 35 FTE positions. Additionally, there is an increase in labor income resulting from the interaction of local industries purchasing from other local industries of \$3,663,407. The total value added to the Levy County economy annually is \$119,957,160, and 304 fulltime equivalent jobs.

Over the 100 year life of the mine the total value impact to Levy County is estimated at approximately \$12 billion dollars.

Following in Table 3 is the estimated impact on Levy County employment by industry and the top industries for employment growth. Not surprisingly, the largest employment growth is expected in the mining and quarrying sector with a total increase of 44 jobs. Of the 44 jobs, 35 of the jobs will be at the King Road Aggregate Mine. Total labor income is estimated at \$54,399,696 with total output of \$88,011,848. The following industries benefitting from the King Road Aggregate Mine by employment growth are food services, private household operations, retail store-general merchandise, retail stores-food beverage.

#### Taxes and Fees

Taxes and fees are generated by the King Road Aggregate Mine either directly, indirectly or from inducement. Direct taxes and fees are generated from the mine operation and include taxes on real property, tangible personal property, Levy County sales tax increment, and licenses, fees and permits. Direct taxes and fees to Levy County annually are estimated at \$2,130,867.

Indirect taxes and fees are generated by the King Road Aggregate Mine from off-site purchases of goods and services and spending of employees in the community. Induced taxes and fees are generated by the iterative spending in local economy. Total indirect and induces taxes and fees are estimated at \$2,080,619 annually.

The total taxes and fees to Levy County are \$4,211,486 and over the life of the King Road Aggregate Mine total taxes and fees to Levy County are estimated at \$421 million.

**Table 7****Top Ten Industries for Employment Growth**

Sector	Description	Total Employment	Total Labor Income	Total Value Added	Total Output
26	Mining, quarrying sand, gravel, clay, minerals	44	\$ 54,399,696	\$ 66,150,952	\$ 88,011,848
413	Food services and drinking places	22	\$ 330,152	\$ 484,054	\$ 1,036,013
426	Private household operations	14	\$ 79,653	\$ 91,286	\$ 92,292
329	Retail Stores - General merchandise	13	\$ 336,405	\$ 500,871	\$ 765,932
324	Retail Stores - Food and beverage	13	\$ 286,309	\$ 440,681	\$ 715,142
25	Mining and quarrying stone	13	\$ 718,276	\$ 1,322,906	\$ 1,987,596
319	Wholesale trade businesses	11	\$ 434,804	\$ 748,154	\$ 1,230,294
354	Monetary authorities and depository credit	10	\$ 528,527	\$ 1,387,506	\$ 1,933,667
397	Private hospitals	10	\$ 271,786	\$ 285,429	\$ 826,591
425	Civic, social, professional organizations	9	\$ 163,737	\$ 95,310	\$ 395,940

## **ADDENDA**



## Glossary

Commodities	The goods and services produced by industries.
Direct Effects	The set of expenditures applied to the predictive model (i.e., I/O multipliers) for impact analysis.
Indirect Effects	The inner-industry effects of input-output analysis. The impacts above and beyond the direct effects when applied to the Type I multipliers.
Input-Output Analysis	An economic model that allows the assessment of change in overall economic activity as a result of some corresponding change in one or several activities
Labor Income	In general it represents all forms of employment income. In I/O it is the sum of employee compensation and proprietor income (except for IMPLAN multiplier report 603 which includes only employee compensation).
Local Purchase Coefficients	Proportion of specified impacts which will be applied to model multipliers. We allow the software to estimate a portion to be directly imported and therefore that portion will not have indirect or induced effects.
Predictive Model	The mathematical representation of the input-output multipliers. Mathematically it is: $X = (I - A)^{-1} * Y$ .

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**Urban Economics, Inc. - Tampa, Florida** - Michael A. McElveen is president of Urban Economics, Incorporated, a real estate company that provides consulting, asset development, highest and best use, economic benefit studies, demographic analysis, and practicable development alternatives to private, corporate and governmental clients. Urban Economics, Inc., was founded in 1987 and has been providing real estate valuation and consulting services for 23 years. The focus of Michael A. McElveen has been expert witness testimony, having testified either at trial, hearing or by deposition over 120 times.

He has performed valuations, counseling and expert witness testimony on many types of real estate including offices, hospitals, manufacturing, hospitality, resorts, golf courses, regional scale retail, movie theaters, master planned residential communities, Developments of Regional Impact, condominiums, apartments, vacant land and mines.

**Urban Economics Advisors, LLC. - Fort Lauderdale, Florida** - Partner of a real estate advisory company that provides valuation, consulting, mortgage finance and real estate transactional advisory services to private, corporate, and institutional clients. Consulting services include evaluations (marketability, feasibility, HABU studies), financial modeling, underwriting & due diligence, tax appeals, valuations (appraisals), and expert witness testimony and litigation support. Transaction advisory services include arranging for financing, acquisitions, and sales services. He also provides commercial and residential construction and development services, property management and leasing, workouts, and receiverships through his partnerships.

**Advisory Specialty**

**Economic Impact Studies** – An economic Impact study is the quantification of the effect of a change within a community's economic structure. This analysis requires the analyst to establish assumptions and key relationships that direct how change occurs and the magnitude of the change. Mr. McElveen uses the latest version of the IMPLAN economic impact modeling solution software to measure the economic benefits of real estate development on a community, county or region. He has performed Economic Benefit analysis on such properties as a 9,400 acre aggregate mine, 1 million square foot regional mall and residential development. In conjunction with the Economic Benefit Study, his findings have been presented at public hearings as an expert witness.

**Environmental Impairment** – Mr. McElveen has been recognized by his peers as an expert in the valuation of real property that is impacted by an environmental impairment. He has written articles on the marketability of impaired properties and lectured many professional groups on development within Brownfields. Mr. McElveen has served as an

expert witness in the courts of Florida on the impact of phosphate slurry on the value of several hundred single-family homes along the Alafia River, unpermitted landfills, heavy metals in the Floridan Aquifer of a manufacturing plant, heavy metals in the ground water of single-family homes near a manufacturing plant, and petroleum and pesticide contamination of commercial land.

**Location Studies** – The change of location of real estate can have a most dramatic impact on the value, marketability, and/or use of real property. Mr. McElveen has performed studies of the impact on real estate from a change of location. Some of the locational studies are the impact of a frontage road and overpass on convenience retail and service stations, impact on residences of increased traffic flow into a residential community and proximity of interstate externalities on apartment communities. He has provided extensive counseling to The Home Depot Corporation in their effort to educate neighborhood groups on the development of big box uses near residential communities. Mr. McElveen provides locational analysis with the use of ESRI ARCview geographic software and economic modeling that provides a compelling visual depiction of the value impact of a change of location on the use and value of real estate.

### **Education**

Bachelor of Art Finance, University of South Florida  
Bachelor of Science, Florida State University

### **Professional Associations**

Appraisal Institute (MAI)	Florida Real Estate Broker
American Society of Real Estate (ASRE)	State of Florida Certified General Real Estate Appraiser

### **Expert Witness**

Expert Witness in Federal Bankruptcy Court, Florida Middle District and Florida Lower District, Courts of Miami-Dade, Pasco, Hillsborough, Pinellas, Lee, Broward, Orange, Polk, Alachua, Hardee, Hernando, Manatee, Palm Beach, St. Johns, Sumter and Volusia Counties.