

**AIRPORT BUSINESS PARK NO. 1**  
**LAWRENCE, DOUGLAS COUNTY, KANSAS**

**ECONOMIC IMPACT STUDY**

**AUGUST 17, 2007**

---

Prepared by

**RICHARD CAPLAN & ASSOCIATES**

---

7301 Mission Road, Suite 100

Prairie Village, Kansas 66047

(913) 831-7166

**Projected Airport Business Park No. 1 Economic Impact Study  
Lawrence, Douglas County, Kansas**

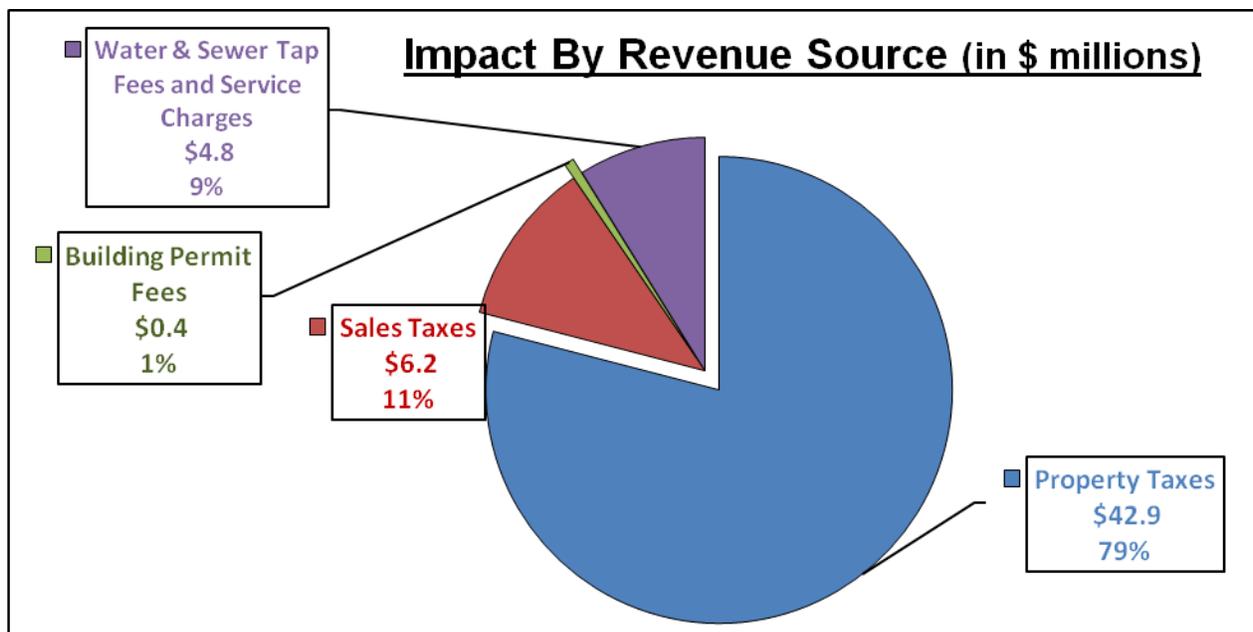
The purpose of this economic analysis is to project the property, local sales taxes and other major revenues over the next 20 years to the City of Lawrence generated by the 143 acre Airport Business Park No. 1 planned in North Lawrence. This study also projects the number of new employees that will work at the park upon completion.

**I. Executive Summary**

In summary, the Airport Business Park will generate over \$15.5 million in local property, sales taxes, building permit fees, water and sewer tap fees and service charges in the first 10 years and increase to over \$54.4 million for the first 20 years of the business park's life beginning in 2009. (These revenues are calculated in 2007 dollars.) The following Table A summarizes these revenues for the first 10 and 20 years.

**Table A  
Summary of Airport Business Park No. 1 Local Tax Collections Years 10 and 20**

Period	Property Taxes	Local Sales Taxes	Building Permit Fees	Water & Sewer Tap Fees and Service Charges	TOTAL IMPACT
Years 1 – 10	\$12,139,827	\$1,683,926	\$237,838	\$1,521,157	\$15,584,329
Years 1 – 20	\$42,985,757	\$6,229,031	\$375,247	\$4,830,714	\$54,420,749



**Projected Airport Business Park No. 1 Economic Impact Study  
Lawrence, Douglas County, Kansas**

Upon completion, the business park will accommodate 1,644 new jobs including 1,394 in the Business Park's industries and approximately 250 persons working in the commercial businesses within the park.

This economic impact study is presented in five sections:

- A. Business Park Absorption and Employment
- B. Property Taxes
- C. Local Sales Tax Collections
- D. Buildings Permits, Water and Sewer Tap Fees and Services Charges
- E. Conclusion and Additional Assumptions

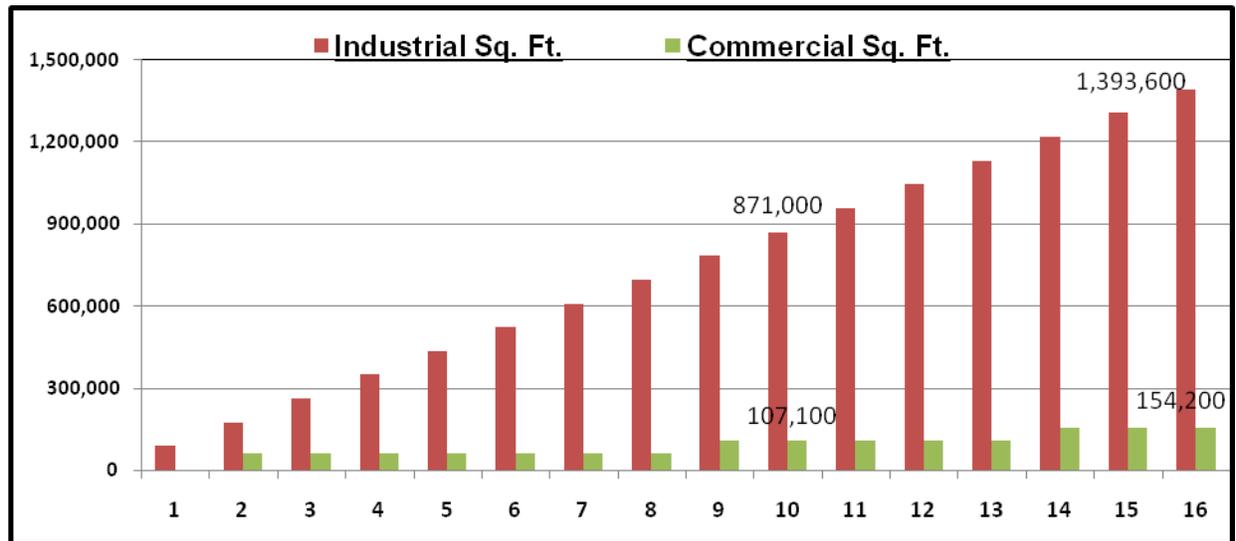
**A. Business Park Absorption and Employment**

The 143 acre Airport Business Park No. 1 is planned to include 127 acres of industrial development and 16 acres of commercial land. It is projected that the industrial development will be built out by year 16, at an average rate of 8 acres adding an average of 87,100 square feet per year and the commercial development fully completed in year 14. The industrial and commercial buildings are planned to cover an average of 25 percent of each building site. Table B summarizes and the following graph illustrate the projected absorption by year for the Airport Business Park No. 1.

**Table B  
Airport Business Park Annual Absorption Summary by Land Use**

Year	<u>Industrial</u>		<u>Commercial</u>		Annual Construction in Sq. Feet	Cumulative Total Sq. Feet Constructed
	Square Feet Completed	Vacant Acreage	Square Feet Completed	Vacant Acreage		
1	87,100	120	0	16	87,100	87,100
2	174,200	112	60,000	10	147,100	234,200
3	261,300	104	60,000	10	87,100	321,300
4	348,400	96	60,000	10	87,100	408,400
5	435,500	88	60,000	10	87,100	495,500
6	522,600	80	60,000	10	87,100	582,600
7	609,700	72	60,000	10	87,100	669,700
8	696,800	64	60,000	10	87,100	756,800
9	783,900	56	107,100	4	134,200	891,000
10	871,000	48	107,100	4	87,100	978,100
11	958,100	40	107,100	4	87,100	1,065,200
12	1,045,200	32	107,100	4	87,100	1,152,300
13	1,132,300	24	107,100	4	87,100	1,239,400
14	1,219,400	16	154,200	0	134,200	1,373,600
15	1,306,500	8	154,200	0	87,100	1,460,700
16	1,393,600	0	154,200	0	87,100	1,547,800
17	1,393,600	0	154,200	0	0	1,547,800
18	1,393,600	0	154,200	0	0	1,547,800
19	1,393,600	0	154,200	0	0	1,547,800
<b>Year 20</b>	<b>1,393,600 Square Feet</b>	<b>127 acres absorbed</b>	<b>154,200 Square feet</b>	<b>16 acres absorbed</b>	<b>1,547,800 Square Feet</b>	

**Airport Business Park No. 1 Annual Absorption by Square Feet Years 1 - 16**



Employment

In order to project the number of persons to be employed at the Airport Business Park, a review was conducted of six of Lawrence’s largest, private non-office employers. The result of this review found that there is approximately one employee for every 442 to 2,334 square feet in Lawrence. Therefore, based on the location and expected size of the typical light industrial buildings planned for the Airport Business Park, a mid-point figure of one employee for every 1,000 square feet of new industrial development was assumed.

**Table C**  
**Lawrence Major Industry Employment and Building Size Survey**

Business	Lawrence Address	On-Site Employees	Building Square Feet	Employee Per Square Feet
Sauer-Danfoss	3840 Greenway Circle	250	137,500	1 / 550 sf
Hallmark	101 McDonald Road	760	632,290	1 / 832 sf
Amarr	3800 Greenway Circle	588	259,758	1 / 442 sf
K-Mart	2400 Kreske Road	452	1,055,358	1 / 2,334 sf
Berry Plastics	2330 Packer Road	406	406,535	1 / 1,001 sf
Prosoco, Inc.	3741 Greenway	70	138,251	1 / 1,975 sf
<b>Total</b>		<b>2,526</b>	<b>2,629,962</b>	N / A
	<b>Range</b>			<b>1:442 to 1:2,334</b>
	<b>Average</b>			<b>1 : 1,041 sq. ft.</b>
	<b>Median</b>			<b>1 : 916 sq. ft.</b>

Source: Grubb-Ellis; Lawrence Chamber of Commerce; Douglas County Appraiser’s Office.

Therefore, the Airport Business Park will house approximately 1,644 employees: 1,394 in the industrial buildings (an average of 1 employee per 1,000 square feet) and approximately 250 in the commercial buildings (a blended average of 1 employee per 620 square feet).

**Table D  
Projected Airport Business Park No. 1 Employment Years 1 – 20**

<b>Year</b>	<b>Persons Employed at the Industrial Development</b>	<b>Persons Employed at the Commercial Development</b>	<b>CUMULATIVE PARK EMPLOYEES</b>
1	87	0	87
2	174	97	271
3	261	97	358
4	348	97	445
5	436	97	533
6	523	97	620
7	610	97	707
8	697	97	794
9	784	173	957
10	871	173	1,044
11	958	173	1,131
12	1,045	173	1,218
13	1,132	173	1,305
14	1,219	250	1,469
15	1,307	"	1,557
16	1,394	"	1,644
17	"	"	1,644
18	"	"	1,644
19	"	"	1,644
20	"	"	1,644 employees

**B. Property Taxes**

Property taxes are calculated using the current tax rate of 115.675 mills. The 2007 property tax rate and collections are divided among the city's taxing jurisdictions as follows:

<b>Jurisdiction</b>	<b>Mill Levy</b>	<b>Percent of Total</b>
City of Lawrence	26.358	22.8%
Douglas County	30.013	25.9%
School District	57.804	50.0%
State Levy	1.500	1.3%
<b>TOTAL</b>	<b>115.675</b>	<b>100%</b>

The property tax projections assume a combined mill levy of 115.675. Based on these tax rates, the business park will generate over \$42 million in property taxes during its first 20 years.

**Table E  
Summary of Total Property Taxes**

<b>Year</b>	<b>Industrial Development</b>	<b>Commercial Development</b>	<b>TOTAL (@115.675)</b>
1	\$ 176,318	\$ 0	\$ 176,318
2	\$ 352,635	\$ 221,228	\$ 573,864
3	\$ 528,953	\$ 225,653	\$ 754,606
4	\$ 705,270	\$ 230,166	\$ 935,437
5	\$ 881,588	\$ 234,769	\$ 1,116,357
6	\$ 1,057,906	\$ 239,465	\$ 1,297,370
7	\$ 1,234,223	\$ 244,254	\$ 1,478,477
8	\$ 1,410,541	\$ 249,139	\$ 1,659,680
9	\$ 1,586,859	\$ 394,893	\$ 1,981,751
10	\$ 1,763,176	\$ 402,791	\$ 2,165,967
11	\$ 1,939,494	\$ 410,846	\$ 2,350,340
12	\$ 2,115,811	\$ 419,063	\$ 2,534,875
13	\$ 2,292,129	\$ 427,445	\$ 2,719,574
14	\$ 2,468,447	\$ 435,994	\$ 2,904,440
15	\$ 2,644,764	\$ 568,557	\$ 3,213,321
16	\$ 2,821,082	\$ 579,928	\$ 3,401,010
17	\$ 2,821,082	\$ 591,527	\$ 3,412,609
18	\$ 2,821,082	\$ 603,357	\$ 3,424,439
19	\$ 2,821,082	\$ 615,424	\$ 3,436,506
20	\$ 2,821,082	\$ 627,733	\$ 3,448,815
<b>20 Year Total Property Taxes</b>	<b>\$35,263,524</b>	<b>\$7,722,233</b>	<b>\$42,985,757</b>

Note: Total may not add due to rounding.

**C. Local Sales Tax Collections**

The City collects a 1% sales tax and is remitted approximately 60% of the 1% local sales tax collected by Douglas County. Table F summarizes the annual receipts of the new commercial development at Airport Business Park to Lawrence and Douglas County. The local sales tax collections are based on industry averages reported for by Dollars & Cents of Shopping Centers published by the Urban Land Institute adjusted for Lawrence market conditions and range from \$125 to \$200 sales per square foot in 2007 dollars.

**Table F  
Summary of Local Sales Tax Receipts Years 1 - 20**

<b>Year</b>	<b>City of Lawrence (est. 1.6%)</b>	<b>Douglas County (est. 0.4%)</b>	<b>TOTAL</b>
<b>1</b>	\$ 0	\$ 0	\$ 0
<b>2</b>	\$ 115,680	\$ 28,920	\$ 144,600
<b>3</b>	\$ 117,994	\$ 29,498	\$ 147,492
<b>4</b>	\$ 120,353	\$ 30,088	\$ 150,442
<b>5</b>	\$ 122,761	\$ 30,690	\$ 153,451
<b>6</b>	\$ 125,216	\$ 31,304	\$ 156,520
<b>7</b>	\$ 127,720	\$ 31,930	\$ 159,650
<b>8</b>	\$ 130,274	\$ 32,569	\$ 162,843
<b>9</b>	\$ 241,160	\$ 60,290	\$ 301,450
<b>10</b>	\$ 245,983	\$ 61,496	\$ 307,479
<b>11</b>	\$ 250,903	\$ 62,726	\$ 313,629
<b>12</b>	\$ 255,921	\$ 63,980	\$ 319,901
<b>13</b>	\$ 261,039	\$ 65,260	\$ 326,299
<b>14</b>	\$ 385,810	\$ 96,452	\$ 482,262
<b>15</b>	\$ 393,526	\$ 98,382	\$ 491,908
<b>16</b>	\$ 401,397	\$ 100,349	\$ 501,746
<b>17</b>	\$ 409,425	\$ 102,356	\$ 511,781
<b>18</b>	\$ 417,613	\$ 104,403	\$ 522,016
<b>19</b>	\$ 425,965	\$ 106,491	\$ 532,457
<b>20</b>	\$ 434,485	\$ 108,621	\$ 543,106
<b>20 Years of Sales Taxes</b>	<b>\$ 4,983,225</b>	<b>\$ 1,245,806</b>	<b>\$ 6,229,031</b>

Note: Total may not add due to rounding.

**D. Building Permits, Water and Sewer Fees and Charges**

In addition to the major taxes, the addition of industrial and commercial businesses at the Airport Business Park will pay one time building permit, water and sewer tap fees and monthly service charges for water and sanitary sewer use.

**Building Permit Fees**

The City of Lawrence current building permit fee schedule charges \$17,980.92 for the first \$5,000,000 in construction cost plus \$1.54 for each additional \$1,000 or fraction thereof. Based on this schedule, the following construction values and building permit fees have been estimated as follows:

<b>Building Use</b>	<b>Building Size</b>	<b>Building Value</b>	<b>Building Permit Fee</b>
Industrial	87,100 square feet	\$6,097,000	\$19,670
Commercial	60,000 square feet	\$7,500,000	\$21,831
Commercial	47,100 square feet	\$5,887,500	\$19,348
<b>Business Park Total (all buildings)</b>			<b>\$375,247</b>

**Water and Sewer Tap Fees and Service Charges**

The exact amount of water and sewer tap fees will depend in the number of individual business connections and size of the water lines. The following assumptions were used to project the tap fees to be paid for by the commercial and industrial businesses based on the city's 2007 water and sewer fee schedule.

<b>Water &amp; Sewer Tap Fees</b>					
<b>Building Use</b>	<b>Total Square Feet of Development</b>	<b>Average Sq. Ft. per Business: Estimated Number of Businesses</b>	<b>Total Water Tap Fee Per Business</b>	<b>Total Sewer Tap Fee Per Business</b>	<b>Total Water &amp; Sewer Tap Fees for Project</b>
<b>Industrial</b>	1,393,600	87,100 sq. feet; 16 businesses	\$3,890 (includes \$520 meter purchase)	\$6,500 (includes \$520 meter purchase)	<b>\$166,240</b>
<b>Commercial</b>	154,200	5,600 sq. feet; 30 businesses			<b>\$311,700</b>

Because the precise user types and demand in the industrial park are not determined at this time, these service charges are based on average annual use per gallon per day as derived

**Projected Airport Business Park No. 1 Economic Impact Study  
Lawrence, Douglas County, Kansas**

from Lawrence's 2003 Wastewater Master Plan. Landplan Engineering has calculated that upon build out, the commercial uses are projected to require an average of 354,000 gallons per month, and the industrial users will require an average of 2,976,000 gallons per month. Water and sewerage charges are based on the city's 2007 Water and Sewer Rates Fee Schedule as follows:

<b>Water &amp; Sewer Use Charges</b>					
<b>Building Use</b>	<b>Monthly Use</b>	<b>Monthly Water Rate</b>	<b>Monthly Sewer Rate</b>	<b>Total Monthly Charge</b>	<b>ANNUAL CHARGE (at Buildout)</b>
<b>Industrial</b>	2,976,000 gallons	\$2.03 per 1,000 gallons	\$4.64 per 1,000 gallons	\$333,737	<b>\$4,004,960</b>
<b>Commercial</b>	354,000 gallons	\$2.22 per 1,000 gallons		\$38,812	<b>\$465,742</b>

The following Table G indicates the combined commercial and industrial annual revenues to the City of Lawrence from water and sewer utilities over the next 20 years.

**Table G  
Water and Sewer Tap Fees and Service Charges Years 1 - 20**

<b>Year</b>	<b>Industrial</b>		<b>Commercial</b>		<b>TOTAL</b>
	<b>Tap Fees</b>	<b>Service Charges</b>	<b>Tap Fees</b>	<b>Service Charges</b>	
1	\$ 10,390	\$ 19,507		\$ -	\$ 29,897
2	\$ 10,390	\$ 39,014	\$ 124,680	\$ 14,368	\$ 174,084
3	\$ 10,390	\$ 58,521	\$ 0	\$ 14,368	\$ 83,279
4	\$ 10,390	\$ 78,028	\$ 0	\$ 14,368	\$ 102,786
5	\$ 10,390	\$ 97,535	\$ 0	\$ 14,368	\$ 122,293
6	\$ 10,390	\$ 117,042	\$ 0	\$ 14,368	\$ 141,800
7	\$ 10,390	\$ 136,549	\$ 0	\$ 14,368	\$ 161,307
8	\$ 10,390	\$ 156,056	\$ 0	\$ 14,368	\$ 180,814
9	\$ 10,390	\$ 175,563	\$ 0	\$ 14,368	\$ 200,321
10	\$ 10,390	\$ 195,070	\$ 93,510	\$ 25,706	\$ 324,676
11	\$ 10,390	\$ 214,577	\$ 0	\$ 25,706	\$ 250,673
12	\$ 10,390	\$ 234,084	\$ 0	\$ 25,706	\$ 270,180
13	\$ 10,390	\$ 253,591	\$ 0	\$ 25,706	\$ 289,687
14	\$ 10,390	\$ 273,098	\$ 0	\$ 25,706	\$ 309,194
15	\$ 10,390	\$ 292,605	\$ 93,510	\$ 37,045	\$ 433,550
16	\$ 10,390	\$ 312,112	\$ 0	\$ 37,045	\$ 359,547
17	\$ 0	\$ 312,112	\$ 0	\$ 37,045	\$ 349,157
18	\$ 0	\$ 312,112	\$ 0	\$ 37,045	\$ 349,157
19	\$ 0	\$ 312,112	\$ 0	\$ 37,045	\$ 349,157
20	\$ 0	\$ 312,112	\$ 0	\$ 37,045	\$ 349,157
<b>Years 1 - 20</b>	<b>\$ 166,240</b>	<b>\$ 3,901,410</b>	<b>\$ 311,700</b>	<b>\$ 465,742</b>	<b>\$ 4,830,714</b>

**E. Conclusion and Additional Assumptions**

Table H summarizes the total projected \$54+ million economic impact for the first 20 years of the Airport Business Park No. 1 by each revenue category described in this study.

**Table H  
20 Year Combined Airport Business Park No. 1 Impact Summary By Revenue**

Year	Property Taxes	Local Sales Taxes	Building Permits	Water & Sewer Service Charges	TOTAL
1	\$ 176,318	\$ 0	\$ 19,670	\$ 29,897	<b>\$15,584,329</b>
2	\$ 573,864	\$ 144,600	\$ 41,501	\$ 174,084	
3	\$ 754,606	\$ 147,492	\$ 19,670	\$ 83,279	
4	\$ 935,437	\$ 150,442	\$ 19,670	\$ 102,786	
5	\$ 1,116,357	\$ 153,451	\$ 19,670	\$ 122,293	
6	\$ 1,297,370	\$ 156,520	\$ 19,670	\$ 141,800	
7	\$ 1,478,477	\$ 159,650	\$ 19,670	\$ 161,307	
8	\$ 1,659,680	\$ 162,843	\$ 19,670	\$ 180,814	
9	\$ 1,981,751	\$ 301,450	\$ 39,017	\$ 200,321	
10	\$ 2,165,967	\$ 307,479	\$ 19,670	\$ 324,676	
11	\$ 2,350,340	\$ 313,629	\$ 19,670	\$ 250,673	
12	\$ 2,534,875	\$ 319,901	\$ 19,670	\$ 270,180	
13	\$ 2,719,574	\$ 326,299	\$ 19,670	\$ 289,687	
14	\$ 2,904,440	\$ 482,262	\$ 39,018	\$ 309,194	
15	\$ 3,213,321	\$ 491,908	\$ 19,670	\$ 433,550	
16	\$ 3,401,010	\$ 501,746	\$ 19,670	\$ 359,547	
17	\$ 3,412,609	\$ 511,781	\$ 0	\$ 359,513	
18	\$ 3,424,439	\$ 522,016	\$ 0	\$ 369,869	
19	\$ 3,436,506	\$ 532,457	\$ 0	\$ 380,225	
20	\$ 3,448,815	\$ 543,106	\$ 0	\$ 390,581	
<b>20 Year Total</b>	<b>\$42,985,757</b>	<b>\$6,229,031</b>	<b>\$375,247</b>	<b>\$ 4,934,274</b>	<b>\$54,420,749</b>

The following summarizes the major assumptions incorporated into the economic impact projections:

1. The combined property tax rate will be at the 2007 rate of 115.675 mills and remain constant during the projection period.
2. The property improvements are estimated to be appraised based on the following:
  - a. Industrial space will be appraised at an average value of \$70 per square foot.
  - b. Retail space will be appraised at an average of \$125 per square foot and increase by 2 percent annually.
3. All projections are in 2007 dollars.
4. The mix of commercial uses is based on the tenant mix most frequently found in U.S. community shopping centers as reported by the Urban Land Institute.
5. All building permit and water and sewer revenues are calculated at 2007 rates. Any future increases to these service charges or tap fees will raise the projected amounts paid by the developer, builders and/or tenants.

In conclusion, Lawrence and Douglas County will realize significant economic benefits from this project in the coming years.

*Richard Caplan*

August 17, 2007

© RICHARD CAPLAN & ASSOCIATES