



June 21, 2019

Rochelle Small-Toney
City Manager, Rocky Mount, North Carolina
331 Franklin Street
Rocky Mount, NC 27804

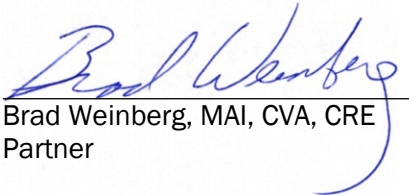
Re: Economic Impact Analysis for a downtown redevelopment project in Rocky Mount, NC

Dear Ms. Small-Toney:

At your request, Novogradac & Company LLP has performed an Economic Impact Analysis of the above referenced project using the "IMPLAN" software and data produced by IMPLAN Group, LLC. We have not examined the data or the assumptions underlying such data in accordance with the standards prescribed by the AICPA and, accordingly, do not express an opinion or any other form of assurance on the data estimates obtained for use in our economic impact analysis. Further, this analysis is subject to the Assumptions and Limiting Conditions found in Addendum B of this report.

Please do not hesitate to contact us if there are any questions regarding the report or if Novogradac & Company LLP can be of further assistance. It has been our pleasure to assist you with this project.

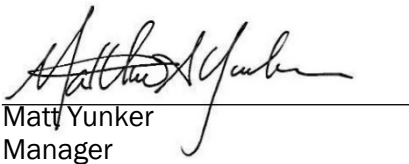
Respectfully submitted,



Brad Weinberg, MAI, CVA, CRE
Partner



David Grubman
GIS Manager



Matt Yunker
Manager



Alan O'Connell
Analyst

BACKGROUND

The City of Rocky Mount, North Carolina (hereinafter, the “Sponsor”) has represented to us that they intend to facilitate a \$56,530,000 investment (\$48,280,000 total for “Concept 2”) in a downtown redevelopment project that will include a mix of commercial and residential uses (hereinafter, the “Project”). It should be noted that our investment totals do not include property acquisition costs. The proposed Project entails four development phases:

1. Public Parking Garage
 - a. Concept 1 - \$25,400,000 - provides an estimated 840 parking spaces within two five-level parking structures totaling approximately 648,000 square feet combined. The parking garages are considered catalytic to the other three phases of the proposed redevelopment plan.
 - b. Concept 2 - \$17,150,000 - this alternate option would provide an estimated 700 parking spaces within one five-level parking structure. We detail the total tax impacts of this alternate development plan in a later section.
2. Hotel - \$15,130,000 - 107 rooms.
3. Retail - \$5,000,000 - 20,000 square feet of space for a restaurant, brewery, and small retail shops.
4. Residential - \$11,000,000 - 60 condominium/apartment townhouse units.

The analysis estimates the impacts for all components of the Project during their corresponding years of construction and operation.

If the investment is made as represented by the Sponsor, it will have both short-term and long-term impacts on the Rocky Mount, North Carolina economy. The Sponsor has engaged us to estimate these impacts, which include short-term and long-term direct, indirect, and induced economic impacts on the local community. The IMPLAN study assesses not only the direct employment components of the Project, but also the effects of additional households into the community.

Tremendous amounts of data are required in order to produce reliable economic impact models that accurately estimate the effects of a given event on an economy. There are numerous factors that need to be taken into account to accurately estimate direct, indirect and induced effects of an event. The expense and labor of Novogradac & Company LLP doing this independently are prohibitive. However, there are companies that do specialize in creating data sets that can be used to estimate impacts. Novogradac & Company LLP utilizes the software and data sets developed by IMPLAN Group, LLC. IMPLAN Group, LLC has developed an input-output model known as “IMPLAN.” Input-output methodology and the IMPLAN software are discussed in greater detail in Addendum A. IMPLAN, using data produced by IMPLAN Group LLC and updated annually, is used by us in conjunction with user provided inputs to help us determine reliable estimates of economic impact for a specific project or projects.

IMPLAN Group LLC has been developing complex localized databases since 1993, and is an industry recognized leader in input-output databases and data modeling. As a result, we believe the information provided is a reliable basis to use in developing the economic impacts for the Project. However, we have not examined the data or the assumptions underlying such data in accordance with the standards prescribed by the AICPA and, accordingly, do not express an opinion or any other form of assurance on the data estimates obtained for use in our economic impact analysis.

PROJECT ASSUMPTIONS

The inputs into the IMPLAN software were developed based on information provided by the Sponsor, independent analysis of Sponsor-provided information, and independent assumptions based on industry standards and independent research, as needed. The following are a list of input assumptions.

- The effective date of this report is June 21, 2019, and all figures are represented in 2019 dollars, unless otherwise noted. The study area used in this development was the state of North Carolina. However, the IMPLAN model is able to individually calculate projected local, state, and federal impacts.
- The total Project construction costs are estimated at approximately \$56,530,000 divided across four construction phases, as provided by the Sponsor. Both hard and soft construction costs are included to calculate the impacts of the Project’s construction. However, it should be noted that land acquisition costs are not applied towards construction costs.
- The event years are based on the anticipated start year of each individual project component, as provided by the Sponsor. The anticipated construction years are 2019 through 2020 for the parking garage and hotel. Construction of the retail component is expected to span 18 months from 2020 to 2022, and the residential construction phase is projected to occur entirely in 2020. The impacts for all four construction phases have been apportioned according a schedule provided by the Sponsor. A detailed timeline table illustrating the anticipated construction schedule for the Project’s various components is attached to the end of this report.
- According to Sponsor-provided projections, the garage, hotel, and residential components of the Project will not achieve full revenue-generating capacity during their first years. Therefore, the operational (non-construction) phases for all four Project components are subject to ramp-up schedules that align with those projected timelines. It should be noted that the report assumes 100 percent revenue generation rates for all operational project components, starting in 2024. A detailed timeline table illustrating the anticipated operation schedule for the Project’s various components is attached to the end of this report.
- For the purposes of this study, we consider the 60 residential units to be multifamily apartment households. Therefore, the impact of these apartment units include construction, apartment operations in the form of property management jobs, and the induced impact spending patterns of 60 new households with an estimated average household income of \$75,000.
- The operational years of the Project are divided into one of four use categories. Employment estimates are based on square footage or unit metric dedicated to each NAICS code, which are verified by multiple sources we deem reliable.

Use	Direct Employment Metric
Parking Garage	1 job / 50,000 square feet
Hotel	1 job / 1.34 hotel rooms
Retail	1 job / 200 square feet
Residential	1 job / 25 apartment units

Sources: Institute of Transportation Engineers, US Department of Energy, RCLCO, Novogradac Estimates

- At the Sponsor’s request, we have accounted for inflation and projected revenue growth rates for each of the Project’s operational components in the Total Tax Results section of this report. However, it should be noted that the garage operations are expected to remain stagnant. Therefore, the impacts of the garage when viewed independently, appear to decline over time when compared to the other Project components. Additionally, we have made an extraordinary assumption that property taxes for all project components will begin in 2022, and will remain at their projected assessment levels without change, for 20 years.

ECONOMIC IMPACTS

Based on our analysis of the IMPLAN modeling results, the Project will generate lasting effects on the entire region. The direct impacts are the total financial equivalents of the number of employees in a given industry. Indirect effects are impacts caused by the iteration of industries purchasing from other industries. Induced effects are the impacts on all local industries caused by the expenditures of new household income generated by the direct and indirect effects.

During construction phases, the Project is expected to support an estimated 430 direct jobs with a total direct financial impact of \$56,530,000 (in 2019 dollars). The construction phases will also support an estimated 287 induced and indirect jobs as a result of the investment, with a total indirect and induced impact of \$44,337,898.

Construction Years Employment Impact			
<i>Impact amounts do not recur</i>			
Project Component	Direct	Indirect	Induced
Garage Construction	202	41	77
Hotel Construction	120	24	46
Retail Construction	40	8	15
Residential Construction	68	44	33
Total	430	116	171

Construction Years Financial Impact			
<i>Impact amounts do not recur</i>			
Project Component	Direct	Indirect	Induced
Garage Construction	\$ 25,400,000	\$ 7,866,558	\$ 10,881,662
Hotel Construction	\$ 15,130,000	\$ 4,685,867	\$ 6,481,872
Retail Construction	\$ 5,000,000	\$ 1,548,535	\$ 2,142,060
Residential Construction	\$ 11,000,000	\$ 6,028,580	\$ 4,702,765
Total	\$ 56,530,000	\$ 20,129,539	\$ 24,208,359

Once all project components are fully operational and achieving 100 percent of projected revenues (in 2024), the overall Project is expected to sustain an estimated 195 direct jobs with an annual direct financial impact of \$16,159,822. The Project will also support an estimated 127 indirect and induced jobs, with an impact of \$18,828,683. It should be noted that these figures represent the totals associated with the larger parking garage option. A detailed breakdown of this ramp-up schedule is attached to the end of this report.

Operational Years Employment Impact			
Project Component	Direct	Indirect	Induced
Garage Operation	13	3	6
Hotel Operation	80	9	9
Retail Operation	100	24	39
Residential Operation	2	1	1
Households Operation	-	-	35
Total	195	38	89

Operational Years Financial Impact			
Project Component	Direct	Indirect	Induced
Garage Operation	\$ 1,226,400	\$ 425,645	\$ 813,095
Hotel Operation	\$ 3,485,659	\$ 1,306,200	\$ 1,260,514
Retail Operation	\$ 11,000,000	\$ 4,308,823	\$ 5,451,243
Residential Operation	\$ 447,763	\$ 156,751	\$ 85,192
Households Operation	\$ -	\$ -	\$ 5,021,219
Total	\$ 16,159,822	\$ 6,197,419	\$ 12,631,264

TAX IMPACTS

Assumptions

The model assesses the total tax impact for each of the Project’s construction phases, as well as the recurring annual tax impacts for operational years. These tax estimates are based upon IMPLAN’s projections.

Construction Tax Results

The following tables demonstrate the IMPLAN model’s total tax output for the Project’s construction phases. These estimates represent total tax impact for the Project’s combined construction years. During construction phases, the development is anticipated to provide approximately \$11,578,890 in total tax revenue, with an estimated \$1,201,767 in taxes to the local government. In this analysis, local government is considered to be the County and City combined.

Construction Years Direct Tax			
<i>Impact amounts do not recur</i>			
Project Component	Federal	State	Local
Garage Construction	\$ 2,239,784	\$ 456,504	\$ 138,754
Hotel Construction	\$ 1,334,171	\$ 271,926	\$ 82,651
Retail Construction	\$ 440,902	\$ 89,863	\$ 27,314
Residential Construction	\$ 752,506	\$ 127,031	\$ 12,556
Total	\$ 4,767,363	\$ 945,324	\$ 261,275

Construction Years Indirect Tax			
<i>Impact amounts do not recur</i>			
Project Component	Federal	State	Local
Garage Construction	\$ 578,476	\$ 227,417	\$ 153,003
Hotel Construction	\$ 344,580	\$ 135,465	\$ 91,139
Retail Construction	\$ 113,873	\$ 44,767	\$ 30,119
Residential Construction	\$ 454,785	\$ 179,930	\$ 121,035
Total	\$ 1,491,715	\$ 587,579	\$ 395,295

Construction Years Induced Tax			
<i>Impact amounts do not recur</i>			
Project Component	Federal	State	Local
Garage Construction	\$ 817,427	\$ 348,604	\$ 245,015
Hotel Construction	\$ 486,916	\$ 207,653	\$ 145,948
Retail Construction	\$ 160,911	\$ 68,623	\$ 48,231
Residential Construction	\$ 353,330	\$ 150,777	\$ 106,003
Total	\$ 1,818,584	\$ 775,657	\$ 545,196

Operation Tax Results

The following tables demonstrate the IMPLAN model’s tax output for the Project’s operation phases. These estimates represent annually recurring total tax impacts for each Project component’s first year of full operation/revenue generation onward. As described previously, impacts during operational years leading up to each component’s first full year of 100 percent revenue generation vary based on each Project component’s individual ramp-up schedule, as detailed in the timeline table attached at the end of this report. Once all phases are fully operational in 2024, the development is anticipated to generate approximately \$437,724 (2019 dollars) for the City of Rocky Mount in recurring annual tax revenue. It should be noted that these figures do not include inflation, while the 20-year projections do account for inflation. Therefore, these numbers are not a direct one-to-one comparison to year 2024 in the next section’s analysis.

Operational Years Direct Tax Impact				
Project Component	Federal	State	County	City
Garage Operation	\$ 141,219	\$ 40,470	\$ 253,065	\$ 182,060
Hotel Operation	\$ 267,176	\$ 172,636	\$ 290,123	\$ 191,313
Retail Operation	\$ 1,079,641	\$ 343,727	\$ 46,429	\$ 28,686
Residential Operation	\$ 21,816	\$ 8,129	\$ 49,622	\$ 35,665
Households Operation	\$ -	\$ -	\$ -	\$ -
Total	\$ 1,509,852	\$ 564,962	\$ 639,239	\$ 437,724

Operational Years Indirect Tax Impact				
Project Component	Federal	State	County	City
Garage Operation	\$ 31,761	\$ 10,601	\$ 4,423	\$ 1,898
Hotel Operation	\$ 104,080	\$ 36,489	\$ 15,892	\$ 6,823
Retail Operation	\$ 319,548	\$ 121,861	\$ 56,384	\$ 24,238
Residential Operation	\$ 11,800	\$ 3,976	\$ 1,698	\$ 729
Households Operation	\$ -	\$ -	\$ -	\$ -
Total	\$ 467,189	\$ 172,927	\$ 78,396	\$ 33,688

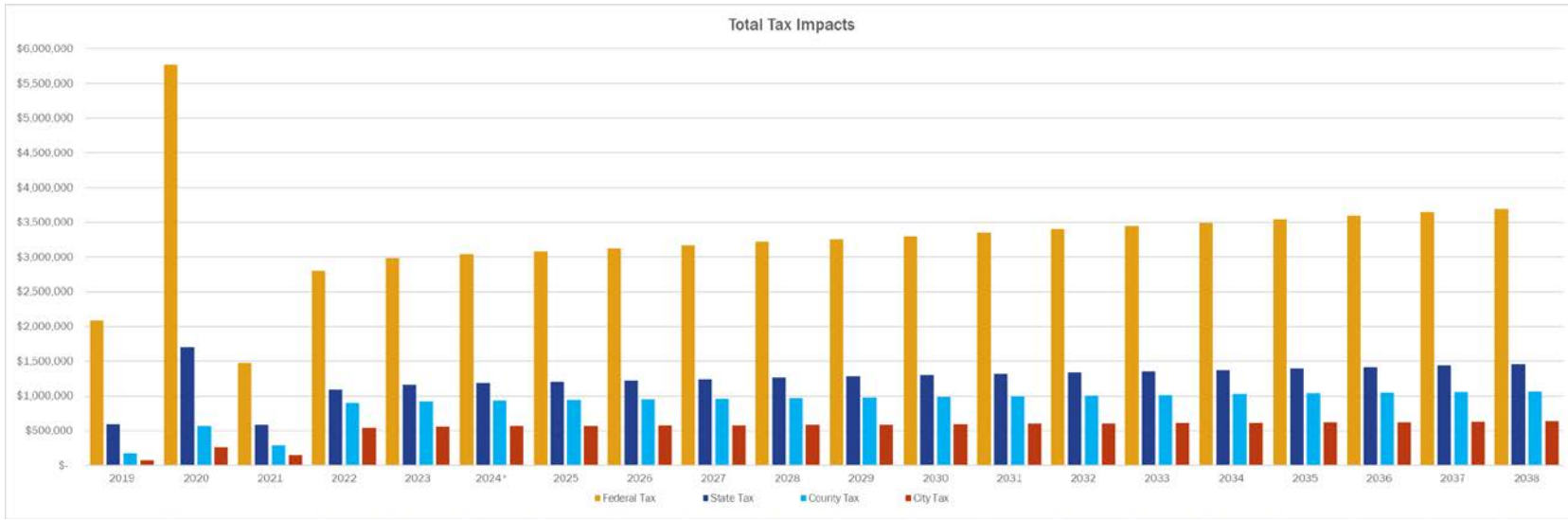
Operational Years Induced Tax Impact				
Project Component	Federal	State	County	City
Garage Operation	\$ 61,147	\$ 26,185	\$ 12,890	\$ 5,548
Hotel Operation	\$ 94,680	\$ 40,362	\$ 19,829	\$ 8,534
Retail Operation	\$ 409,470	\$ 174,584	\$ 85,776	\$ 36,916
Residential Operation	\$ 6,402	\$ 2,734	\$ 1,344	\$ 579
Households Operation	\$ 375,225	\$ 158,779	\$ 77,794	\$ 33,480
Total	\$ 946,925	\$ 402,644	\$ 197,634	\$ 85,057

Total Tax Results (Parking Concept 1)

The following table and graph illustrates the total tax impacts generated each year by the Project over the next 20 years for Parking Concept 1. The following table illustrates various tax impacts broken down by taxing jurisdiction and year. These timeline-based tax projections provide a more detailed year-by-year tax impact, which varies due to the Project’s various overlapping components and ramp-up schedules. It should be noted that total construction tax impacts were evenly distributed across all years of anticipated construction for each component, and that inflation and projected revenue growth rates were accounted for in this analysis.

Total Tax Impacts (All Phases Combined)		2019	2020	2021	2022	2023	2024*	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	20-Year TOTAL
Federal Tax	Direct	\$ 1,286,663	\$ 3,332,296	\$ 686,929	\$ 1,430,201	\$ 1,529,695	\$ 1,560,834	\$ 1,580,925	\$ 1,601,315	\$ 1,622,007	\$ 1,643,006	\$ 1,664,318	\$ 1,685,947	\$ 1,707,898	\$ 1,730,177	\$ 1,752,788	\$ 1,775,736	\$ 1,799,028	\$ 1,822,667	\$ 1,846,661	\$ 1,871,014	\$ 33,930,106
	Indirect	\$ 332,311	\$ 1,134,325	\$ 212,031	\$ 441,498	\$ 473,858	\$ 484,780	\$ 491,383	\$ 498,088	\$ 504,896	\$ 511,809	\$ 518,828	\$ 525,955	\$ 533,191	\$ 540,540	\$ 548,002	\$ 555,579	\$ 563,274	\$ 571,087	\$ 579,022	\$ 587,079	\$ 10,607,535
	Induced	\$ 469,578	\$ 1,297,459	\$ 580,220	\$ 931,823	\$ 977,178	\$ 996,488	\$ 1,012,047	\$ 1,027,877	\$ 1,043,984	\$ 1,060,373	\$ 1,077,049	\$ 1,094,017	\$ 1,111,283	\$ 1,128,851	\$ 1,146,728	\$ 1,164,919	\$ 1,183,429	\$ 1,202,266	\$ 1,221,434	\$ 1,240,940	\$ 20,967,944
Federal Subtotal		\$ 2,088,552	\$ 5,764,080	\$ 1,479,180	\$ 2,803,521	\$ 2,980,731	\$ 3,042,102	\$ 3,084,356	\$ 3,127,280	\$ 3,170,887	\$ 3,215,188	\$ 3,260,195	\$ 3,305,919	\$ 3,352,372	\$ 3,399,568	\$ 3,447,517	\$ 3,496,234	\$ 3,545,731	\$ 3,596,020	\$ 3,647,116	\$ 3,699,033	\$ 65,505,584
State Tax	Direct	\$ 262,243	\$ 703,837	\$ 263,324	\$ 531,909	\$ 572,995	\$ 588,509	\$ 596,827	\$ 605,279	\$ 613,866	\$ 622,590	\$ 631,455	\$ 640,463	\$ 649,616	\$ 658,916	\$ 668,365	\$ 677,968	\$ 687,726	\$ 697,641	\$ 707,717	\$ 717,956	\$ 12,099,201
	Indirect	\$ 130,641	\$ 444,359	\$ 76,933	\$ 163,363	\$ 175,378	\$ 179,328	\$ 181,766	\$ 184,240	\$ 186,752	\$ 189,303	\$ 191,892	\$ 194,521	\$ 197,190	\$ 199,900	\$ 202,651	\$ 205,444	\$ 208,280	\$ 211,160	\$ 214,083	\$ 217,052	\$ 3,954,237
	Induced	\$ 200,259	\$ 553,458	\$ 246,451	\$ 396,158	\$ 415,469	\$ 423,677	\$ 430,285	\$ 437,007	\$ 443,848	\$ 450,808	\$ 457,890	\$ 465,095	\$ 472,427	\$ 479,888	\$ 487,479	\$ 495,204	\$ 503,065	\$ 511,063	\$ 519,203	\$ 527,486	\$ 8,916,221
State Subtotal		\$ 593,143	\$ 1,701,654	\$ 586,708	\$ 1,091,431	\$ 1,163,842	\$ 1,191,515	\$ 1,208,878	\$ 1,226,526	\$ 1,244,466	\$ 1,262,701	\$ 1,281,237	\$ 1,300,079	\$ 1,319,233	\$ 1,338,703	\$ 1,358,496	\$ 1,378,616	\$ 1,399,070	\$ 1,419,864	\$ 1,441,003	\$ 1,462,493	\$ 24,969,659
County Tax	Direct	\$ 14,295	\$ 86,421	\$ 141,581	\$ 628,616	\$ 642,442	\$ 652,189	\$ 655,790	\$ 659,459	\$ 663,199	\$ 667,010	\$ 670,895	\$ 674,854	\$ 678,889	\$ 683,001	\$ 687,192	\$ 691,463	\$ 695,817	\$ 700,253	\$ 704,776	\$ 709,385	\$ 11,707,525
	Indirect	\$ 61,466	\$ 208,270	\$ 34,346	\$ 74,041	\$ 79,503	\$ 81,265	\$ 82,368	\$ 83,488	\$ 84,625	\$ 85,779	\$ 86,950	\$ 88,140	\$ 89,347	\$ 90,572	\$ 91,817	\$ 93,080	\$ 94,362	\$ 95,664	\$ 96,985	\$ 98,327	\$ 1,800,393
	Induced	\$ 98,401	\$ 271,982	\$ 120,922	\$ 194,439	\$ 203,884	\$ 207,950	\$ 211,192	\$ 214,490	\$ 217,846	\$ 221,261	\$ 224,735	\$ 228,270	\$ 231,867	\$ 235,527	\$ 239,252	\$ 243,042	\$ 246,898	\$ 250,822	\$ 254,815	\$ 258,878	\$ 4,376,475
County Subtotal		\$ 174,162	\$ 566,673	\$ 296,848	\$ 897,096	\$ 925,829	\$ 941,404	\$ 949,350	\$ 957,437	\$ 965,670	\$ 974,050	\$ 982,580	\$ 991,264	\$ 1,000,103	\$ 1,009,101	\$ 1,018,260	\$ 1,027,584	\$ 1,037,076	\$ 1,046,739	\$ 1,056,576	\$ 1,066,590	\$ 17,884,393
City Tax	Direct	\$ 7,501	\$ 49,064	\$ 84,425	\$ 431,413	\$ 439,631	\$ 445,458	\$ 447,603	\$ 449,789	\$ 452,018	\$ 454,289	\$ 456,603	\$ 458,962	\$ 461,367	\$ 463,817	\$ 466,315	\$ 468,861	\$ 471,455	\$ 474,100	\$ 476,795	\$ 479,542	\$ 7,939,009
	Indirect	\$ 26,427	\$ 89,538	\$ 14,753	\$ 31,816	\$ 34,163	\$ 34,869	\$ 35,343	\$ 35,823	\$ 36,311	\$ 36,806	\$ 37,309	\$ 37,819	\$ 38,337	\$ 38,863	\$ 39,397	\$ 39,938	\$ 40,489	\$ 41,047	\$ 41,614	\$ 42,190	\$ 772,851
	Induced	\$ 42,350	\$ 117,056	\$ 52,041	\$ 83,681	\$ 87,763	\$ 89,365	\$ 90,758	\$ 92,176	\$ 93,618	\$ 95,085	\$ 96,578	\$ 98,098	\$ 99,643	\$ 101,216	\$ 102,817	\$ 104,445	\$ 106,102	\$ 107,789	\$ 109,505	\$ 111,251	\$ 1,881,339
City Subtotal		\$ 76,278	\$ 255,659	\$ 151,219	\$ 546,910	\$ 561,557	\$ 569,692	\$ 573,704	\$ 577,788	\$ 581,946	\$ 586,180	\$ 590,490	\$ 594,879	\$ 599,347	\$ 603,896	\$ 608,528	\$ 613,244	\$ 618,046	\$ 622,936	\$ 627,914	\$ 632,983	\$ 10,593,198
TOTAL		\$ 2,932,136	\$ 8,288,066	\$ 2,513,955	\$ 5,338,958	\$ 5,631,960	\$ 5,744,713	\$ 5,816,287	\$ 5,889,032	\$ 5,962,970	\$ 6,038,119	\$ 6,114,503	\$ 6,192,141	\$ 6,271,055	\$ 6,351,268	\$ 6,432,802	\$ 6,515,679	\$ 6,599,924	\$ 6,685,559	\$ 6,772,609	\$ 6,861,099	\$ 118,952,834

*All phases fully operational.

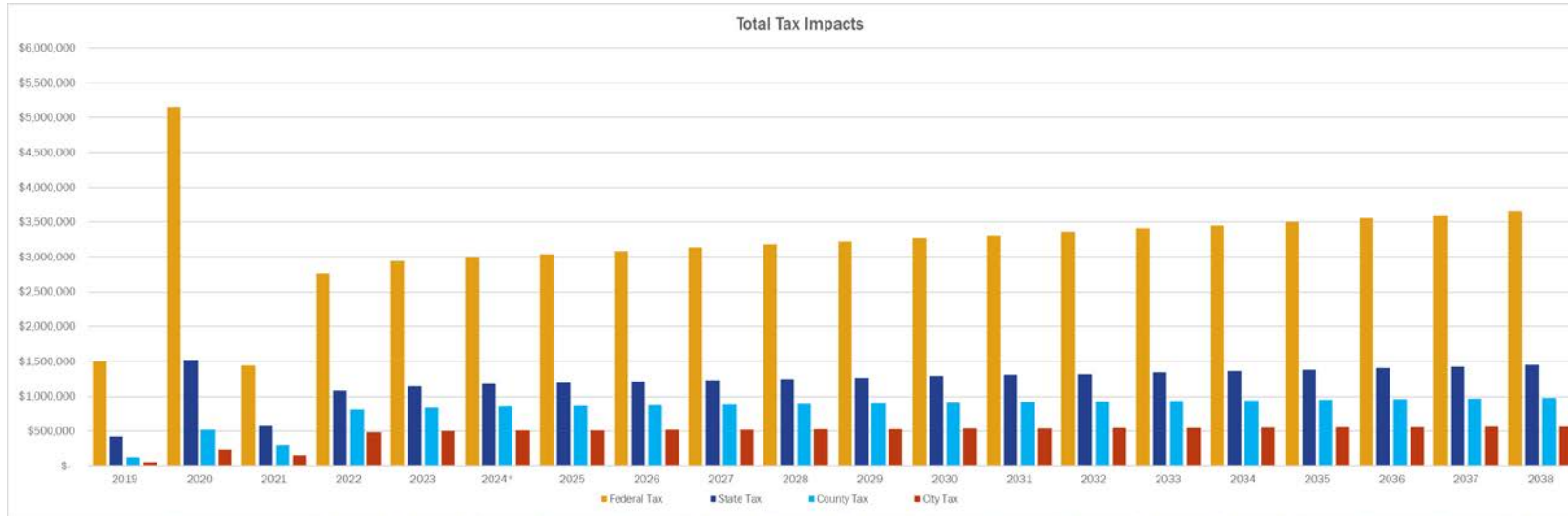


Total Tax Results (Parking Concept 2)

The following table and graph illustrates the total tax impacts generated each year by the Project over the next 20 years for Parking Concept 2. The following table illustrates various tax impacts broken down by taxing jurisdiction and year. These timeline-based tax projections provide a more detailed year-by-year tax impact, which varies due to the Project’s various overlapping components and ramp-up schedules. It should be noted that total construction tax impacts were evenly distributed across all years of anticipated construction for each component, and that inflation and projected revenue growth rates were accounted for in this analysis.

Total Tax Impacts (All Phases Combined)																						
	2019	2020	2021	2022	2023	2024*	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	20-Year TOTAL	
Federal Tax	Direct	\$ 922,919	\$ 2,958,254	\$ 666,335	\$ 1,406,664	\$ 1,506,159	\$ 1,537,298	\$ 1,557,389	\$ 1,577,778	\$ 1,598,470	\$ 1,619,470	\$ 1,640,782	\$ 1,662,411	\$ 1,684,362	\$ 1,706,640	\$ 1,729,251	\$ 1,752,200	\$ 1,775,491	\$ 1,799,131	\$ 1,823,124	\$ 1,847,477	\$ 32,771,606
	Indirect	\$ 238,365	\$ 1,038,064	\$ 207,399	\$ 436,204	\$ 468,565	\$ 479,486	\$ 486,090	\$ 492,795	\$ 499,603	\$ 506,515	\$ 513,534	\$ 520,661	\$ 527,898	\$ 535,246	\$ 542,708	\$ 550,285	\$ 557,980	\$ 565,794	\$ 573,728	\$ 581,786	\$ 10,322,705
	Induced	\$ 336,827	\$ 1,160,249	\$ 571,303	\$ 921,632	\$ 966,987	\$ 986,297	\$ 1,001,856	\$ 1,017,686	\$ 1,033,793	\$ 1,050,182	\$ 1,066,858	\$ 1,083,826	\$ 1,101,091	\$ 1,118,660	\$ 1,136,537	\$ 1,154,728	\$ 1,173,238	\$ 1,192,075	\$ 1,211,243	\$ 1,230,748	\$ 20,515,815
	Federal Subtotal	\$ 1,498,111	\$ 5,156,567	\$ 1,445,037	\$ 2,764,500	\$ 2,941,710	\$ 3,003,081	\$ 3,045,334	\$ 3,088,259	\$ 3,131,866	\$ 3,176,167	\$ 3,221,174	\$ 3,266,898	\$ 3,313,351	\$ 3,360,547	\$ 3,408,496	\$ 3,457,213	\$ 3,506,709	\$ 3,556,999	\$ 3,608,095	\$ 3,660,012	\$ 63,610,126
State Tax	Direct	\$ 188,106	\$ 626,749	\$ 257,422	\$ 525,164	\$ 566,250	\$ 581,765	\$ 590,083	\$ 598,534	\$ 607,121	\$ 615,845	\$ 624,710	\$ 633,718	\$ 642,871	\$ 652,171	\$ 661,621	\$ 671,223	\$ 680,981	\$ 690,896	\$ 700,972	\$ 711,211	\$ 11,827,410
	Indirect	\$ 93,709	\$ 406,653	\$ 75,387	\$ 161,596	\$ 173,611	\$ 177,561	\$ 179,999	\$ 182,473	\$ 184,986	\$ 187,536	\$ 190,126	\$ 192,754	\$ 195,423	\$ 198,133	\$ 200,884	\$ 203,677	\$ 206,513	\$ 209,393	\$ 212,316	\$ 215,285	\$ 3,848,017
	Induced	\$ 143,645	\$ 494,935	\$ 242,632	\$ 391,794	\$ 411,105	\$ 419,313	\$ 425,920	\$ 432,643	\$ 439,484	\$ 446,444	\$ 453,525	\$ 460,731	\$ 468,063	\$ 475,524	\$ 483,115	\$ 490,840	\$ 498,701	\$ 506,699	\$ 514,839	\$ 523,122	\$ 8,723,075
	State Subtotal	\$ 425,459	\$ 1,528,337	\$ 575,441	\$ 1,078,555	\$ 1,150,966	\$ 1,178,639	\$ 1,196,002	\$ 1,213,651	\$ 1,231,590	\$ 1,249,825	\$ 1,268,361	\$ 1,287,204	\$ 1,306,357	\$ 1,325,827	\$ 1,345,620	\$ 1,365,740	\$ 1,386,195	\$ 1,406,988	\$ 1,428,127	\$ 1,449,617	\$ 24,398,502
County Tax	Direct	\$ 10,254	\$ 82,215	\$ 141,250	\$ 546,064	\$ 559,890	\$ 569,637	\$ 573,238	\$ 576,907	\$ 580,647	\$ 584,459	\$ 588,343	\$ 592,302	\$ 596,337	\$ 600,449	\$ 604,640	\$ 608,911	\$ 613,265	\$ 617,702	\$ 622,224	\$ 626,833	\$ 10,295,565
	Indirect	\$ 44,090	\$ 190,570	\$ 33,701	\$ 73,304	\$ 78,766	\$ 80,527	\$ 81,631	\$ 82,751	\$ 83,888	\$ 85,042	\$ 86,213	\$ 87,402	\$ 88,610	\$ 89,835	\$ 91,080	\$ 92,343	\$ 93,625	\$ 94,927	\$ 96,248	\$ 97,590	\$ 1,752,142
	Induced	\$ 70,583	\$ 243,224	\$ 119,042	\$ 192,291	\$ 201,736	\$ 205,802	\$ 209,044	\$ 212,342	\$ 215,698	\$ 219,113	\$ 222,587	\$ 226,122	\$ 229,719	\$ 233,379	\$ 237,103	\$ 240,893	\$ 244,749	\$ 248,674	\$ 252,667	\$ 256,730	\$ 4,281,498
	County Subtotal	\$ 124,926	\$ 516,009	\$ 293,993	\$ 811,658	\$ 840,392	\$ 855,967	\$ 863,912	\$ 872,000	\$ 880,233	\$ 888,613	\$ 897,143	\$ 905,826	\$ 914,665	\$ 923,663	\$ 932,823	\$ 942,147	\$ 951,639	\$ 961,302	\$ 971,139	\$ 981,153	\$ 16,329,204
City Tax	Direct	\$ 5,380	\$ 46,855	\$ 84,247	\$ 371,958	\$ 380,176	\$ 386,002	\$ 388,148	\$ 390,334	\$ 392,562	\$ 394,833	\$ 397,148	\$ 399,507	\$ 401,911	\$ 404,362	\$ 406,860	\$ 409,405	\$ 412,000	\$ 414,644	\$ 417,340	\$ 420,087	\$ 6,923,760
	Indirect	\$ 18,956	\$ 81,928	\$ 14,476	\$ 31,500	\$ 33,847	\$ 34,553	\$ 35,027	\$ 35,507	\$ 35,995	\$ 36,490	\$ 36,993	\$ 37,503	\$ 38,021	\$ 38,547	\$ 39,081	\$ 39,623	\$ 40,173	\$ 40,731	\$ 41,298	\$ 41,874	\$ 752,123
	Induced	\$ 30,377	\$ 104,679	\$ 51,232	\$ 82,757	\$ 86,838	\$ 88,442	\$ 89,835	\$ 91,252	\$ 92,695	\$ 94,162	\$ 95,655	\$ 97,174	\$ 98,720	\$ 100,293	\$ 101,893	\$ 103,522	\$ 105,179	\$ 106,866	\$ 108,582	\$ 110,328	\$ 1,840,482
	City Subtotal	\$ 54,714	\$ 233,463	\$ 149,955	\$ 486,214	\$ 500,861	\$ 508,997	\$ 513,009	\$ 517,094	\$ 521,252	\$ 525,485	\$ 529,796	\$ 534,184	\$ 538,652	\$ 543,202	\$ 547,834	\$ 552,550	\$ 557,352	\$ 562,241	\$ 567,220	\$ 572,289	\$ 9,516,364
TOTAL	\$ 2,103,210	\$ 7,434,376	\$ 2,464,426	\$ 5,140,928	\$ 5,433,929	\$ 5,546,684	\$ 5,618,258	\$ 5,691,003	\$ 5,764,941	\$ 5,840,091	\$ 5,916,474	\$ 5,994,112	\$ 6,073,026	\$ 6,153,239	\$ 6,234,773	\$ 6,317,650	\$ 6,401,895	\$ 6,487,530	\$ 6,574,581	\$ 6,663,070	\$ 113,854,196	

*All phases fully operational.



IMPLAN and Input-Output Modeling

BACKGROUND

The direct impacts are the total financial equivalents of the number of employees in a given industry. Indirect effects are impacts caused by the iteration of industries purchasing from other industries. Induced effects are the impacts on all local industries caused by the expenditures of new household income generated by the direct and indirect effects.

Input-output accounting describes commodity flows from producers to intermediate and final consumers. The total industry purchases of commodities, services, employment compensation, value added, and imports are equal to the value of the commodities produced.

Purchases for final use (final demand) drive the model. Industries produce goods and services for final demand and purchase goods and services from other producers. These other producers, in turn, purchase goods and services. This buying of goods and services (indirect purchases) continues until leakages from the region (imports and value added) stop the cycle.

These indirect and induced effects (the effects of household spending) can be mathematically derived. The derivation is called the Leontief inverse. The resulting sets of multipliers describe the change of output for each and every regional industry caused by a one dollar change in final demand for any given industry. Creating regional input-output models require a tremendous amount of data. The costs of surveying industries within each region to derive a list of commodity purchases (production functions) are prohibitive. IMPLAN was developed as a cost-effective means to develop regional input-output models.

The IMPLAN accounts closely follow the accounting conventions used in the "Input-Output Study of the U.S. Economy" by the Bureau of Economic Analysis (1980) and the rectangular format recommended by the United Nations. The IMPLAN system was designed to serve three functions: 1) data retrieval, 2) data reduction and model development, and 3) impact analysis. Comprehensive and detailed data coverage of the entire U.S. by county, and the ability to incorporate user-supplied data at each stage of the model building process, provides a high degree of flexibility both in terms of geographic coverage and model formulation. The IMPLAN database consists of two major parts: a national-level technology matrix; and estimates of sectorial activity for final demand, final payments, industry output and employment for each county in the U.S. along with state and national totals.

New databases are developed annually by IMPLAN Group LLC, the developer of IMPLAN.

TECHNICAL INFORMATION

The notion of a multiplier rests upon the difference between the initial effect of a change in final demand and the total effects of that change. Total effects can be calculated either as direct and indirect effects, or as direct, indirect, and induced effects. Direct effects are production changes associated with the immediate effects or final demand changes. Indirect effects are production changes in backward-linked industries caused by the changing input needs of directly affected industries (for example, additional purchases to produce additional output). Induced effects are the changes in regional household spending patterns caused by changes in household income generated from the direct and indirect effects. Five different sets of multipliers are estimated by IMPLAN corresponding to five measures of regional economic activity: total industry output; personal income; total income; value added; and employment. For each set of multipliers, three types of multipliers are generated, Type I, Type II and Type SAM.

Type I Multiplier

A Type I multiplier is the direct effect, produced by a change in final demand, plus the indirect effect divided by the direct effect. Increased demands are assumed to lead to increased employment and population with the average income level remaining constant. The Leontief inverse (Type I multipliers matrix) is derived by inverting the direct coefficients matrix. The result is a matrix of total requirement coefficients, the amount each industry must produce in order for the purchasing industry to deliver one dollar's worth of output to final demand.

Type II Multiplier

Type II multipliers incorporate “induced” effects resulting from the household expenditures from new labor income. The linear relationship between labor income and household expenditure can be customized in the IMPLAN Professional® software:

The default relationship is PCE (personal consumption expenditures) and total household expenditures. Each dollar of work-place based income is spent based on the SAM relationship generated by IMPLAN.

The second possibility is a RIMS II style of Type II multiplier, where PCE is adjusted to represent only the spending of the disposable income portion of labor income. In this way there is a direct one-to-one relationship to labor income and PCE. Then a ratio, which the user can specify, is applied to convert total income to disposable income before the rounds of induced effects are calculated.

Type SAM

Type SAM multipliers are the direct, indirect, and induced effects where the induced effect is based on information in the social account matrix. This relationship accounts for social security and income tax leakage, institution savings, and commuting. It also accounts for inter-institutional transfers.

Assumptions and Limiting Conditions

ASSUMPTIONS AND LIMITING CONDITIONS

1. The economic impact analysis contained herein relies on databases and software developed by IMPLAN Group LLC. MIG Inc. has been developing complex localized databases since 1993, and is an industry recognized leader in input-output databases and data modeling. As a result, we believe the information provided is a reliable basis to use in developing the economic impacts for the Project (s). However, we have not examined the data or the assumptions underlying such data in accordance with the standards prescribed by the AICPA and, accordingly, do not express an opinion or any other form of assurance on the data estimates obtained for use in our economic impact analysis.
2. All information contained in the report which was furnished by others was assumed to be true, correct, and reliable. A reasonable effort was made to verify such information, but the author assumes no responsibility for its accuracy.
3. The report was made assuming responsible ownership and capable management of the Project.
4. Possession of the report, or a copy thereof, does not carry with it the right of publication, nor may it be reproduced in whole or in part, in any manner, by any person, without the prior written consent of Novogradac & Company LLP. Neither all nor any part of the report, or copy thereof shall be disseminated to the general public by the use of advertising, public relations, news, sales, or other media for public communication without the prior written consent and approval of Novogradac & Company LLP.
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6. The opinions contained in this report are those of the author and no responsibility is accepted by the author for the results of actions taken by others based on information contained herein.
7. Acceptance of and/or use of this report constitutes acceptance of all assumptions and the above conditions.

Construction/Operation Timeline

CURRICULUM VITAE
BRAD E. WEINBERG, MAI, CVA, CRE

I. Education

University of Maryland, Masters of Science in Accounting & Financial Management
University of Maryland, Bachelors of Arts in Community Planning

II. Licensing and Professional Affiliations

MAI Member, Appraisal Institute, No. 10790
Certified Valuation Analyst (CVA), National Association of Certified Valuers and Analysts (NACVA)
Member, The Counselors of Real Estate (CRE)
Member, Urban Land Institute
Member, National Council of Housing Market Analysts (NCHMA)

State of Alabama – Certified General Real Estate Appraiser, No. G00628
State of California – Certified General Real Estate Appraiser, No. 27638
Washington, D.C. – Certified General Real Estate Appraiser; No. GA10340
State of Florida – Certified General Real Estate Appraiser; No. RZ3249
State of Maine – Certified General Real Estate Appraiser, No. CG3435
State of Maryland – Certified General Real Estate Appraiser; No. 6048
Commonwealth of Massachusetts – Certified General Real Estate Appraiser; No. 103769
State of Michigan – Certified General Real Estate Appraiser, No. 1201074327
State of Nebraska – Certified General Real Estate Appraiser, No. CG2015008R
State of New Jersey – Certified General Real Estate Appraiser; No. 42RG00224900
State of Ohio – Certified General Real Estate Appraiser; No. 2006007302
State of Pennsylvania – Certified General Real Estate Appraiser; No. GA004111
State of South Carolina – Certified General Real Estate Appraiser; No. 4566

III. Professional Experience

Partner, Novogradac & Company LLP
President, Capital Realty Advisors, Inc.
Vice President, The Community Partners Realty Advisory Services Group, LLC
President, Weinberg Group, Real Estate Valuation & Consulting
Manager, Ernst & Young LLP, Real Estate Valuation Services
Senior Appraiser, Joseph J. Blake and Associates
Senior Analyst, Chevy Chase F.S.B.
Fee Appraiser, Campanella & Company

IV. Professional Training

Appraisal Institute Coursework and Seminars Completed for MAI Designation and Continuing Education Requirements

Commercial Investment Real Estate Institute (CIREI) Coursework and Seminars Completed for CCIM Designation and Continuing Education Requirements

V. Speaking Engagements and Authorship

Numerous speaking engagements at Affordable Housing Conferences throughout the Country

Participated in several industry forums regarding the Military Housing Privatization Initiative

Authored "New Legislation Emphasizes Importance of Market Studies in Allocation Process," *Affordable Housing Finance*, March 2001

VI. Real Estate Assignments

A representative sample of Due Diligence, Consulting or Valuation Engagements includes:

- On a national basis, conduct market studies and appraisals for proposed Low-Income Housing Tax Credit properties. Analysis includes preliminary property screenings, market analysis, comparable rent surveys, demand analysis based on the number of income qualified renters in each market, supply analysis and operating expense analysis to determine appropriate cost estimates.
- On a national basis, conduct market studies and appraisals of proposed new construction and existing properties under the HUD Multifamily Accelerated Processing program. This includes projects under the 221(d)3, 221(d)4, 223(f), and 232 programs.
- Completed numerous FannieMae and FreddieMac appraisals of affordable and market rate multifamily properties for DUS Lenders.
- Managed and completed numerous Section 8 Rent Comparability Studies in accordance with HUD's Section 9 Renewal Policy and Chapter 9 for various property owners and local housing authorities.
- Developed a Flat Rent Model for the Trenton Housing Authority. Along with teaming partner, Quadel Consulting Corporation, completed a public housing rent comparability study to determine whether the flat rent structure for public housing units is reasonable in comparison to similar, market-rate units. THA also requested a

flat rent schedule and system for updating its flat rents. According to 24 CFR 960.253, public housing authorities (PHAs) are required to establish flat rents, in order to provide residents a choice between paying a “flat” rent, or an “income-based” rent. The flat rent is based on the “market rent”, defined as the rent charged for a comparable unit in the private, unassisted market at which a PHA could lease the public housing unit after preparation for occupancy. Based upon the data collected, the consultant will develop an appropriate flat rent schedule, complete with supporting documentation outlining the methodology for determining and applying the rents. We developed a system that THA can implement to update the flat rent schedule on an annual basis.

- As part of an Air Force Privatization Support Contractor team (PSC) to assist the Air Force in its privatization efforts. Participation has included developing and analyzing housing privatization concepts, preparing the Request for Proposal (RFP), soliciting industry interest and responses to housing privatization RFP, Evaluating RFP responses, and recommending the private sector entity to the Air Force whose proposal brings best value to the Air Force. Mr. Weinberg has participated on numerous initiatives and was the project manager for Shaw AFB and Lackland AFB Phase II.
- Conducted housing market analyses for the U.S. Army in preparation for the privatization of military housing. This is a teaming effort with Parsons Corporation. These analyses were done for the purpose of determining whether housing deficits or surpluses exist at specific installations. Assignment included local market analysis, consultation with installation housing personnel and local government agencies, rent surveys, housing data collection, and analysis, and the preparation of final reports.
- Developed a model for the Highland Company and the Department of the Navy to test feasibility of developing bachelor quarters using public-private partnerships. The model was developed to test various levels of government and private sector participation and contribution. The model was used in conjunction with the market analysis of two test sites to determine the versatility of the proposed development model. The analysis included an analysis of development costs associated with both MILCON and private sector standards as well as the potential market appeal of the MILSPECS to potential private sector occupants.

STATEMENT OF PROFESSIONAL QUALIFICATIONS

David R. Grubman

I. Education

University of Maryland, College Park, MD
Bachelor of Science, Geography
Specialization: Geographic Information Systems

University of Maryland, College Park, MD
Master of Professional Studies, GIS

II. Professional Experience

Senior Manager, Data Analytics Group, Novogradac & Company LLP
GIS Manager, Novogradac & Company, LLP
GIS Analyst, Novogradac & Company, LLP
GIS Technician, Office of Community Development, City of Hyattsville, MD

III. Real Estate Assignments

- Assisted in the creation and implementation of in-house Appraisal, Market Study, and Rent Comparability Study software platform.
- Developed custom market reports which assess current state of the LIHTC marketplace in each region, nationwide.
- Implemented and maintained comprehensive nationwide demographics Geographic Information System (GIS) for use in market analysis studies. Performed any and all mapping related tasks for all company projects. Studies are primarily in low-income tax housing credit (LIHTC) areas and are also compared to surrounding macro-region demographics. Performed thorough analyses relating to supply and demand of current household offerings in a variety of market areas across the U.S.
- Performed economic impact modeling using IMPLAN software for New Market Tax Credit (NMTC) investments. Models include assessing direct, indirect, and induced employment and financial impacts for NMTC-related investments.
- Created and maintained comprehensive Operating Expense database which stores and retrieves operating expenses for LIHTC properties. Author of Novogradac Multifamily Rental Housing Operating Expense Report–Survey and Analysis for LIHTC Properties.
- Oversaw online rent reasonableness toolkit for Public Housing Agencies (PHA) in support of Housing Choice Voucher program. Rent reasonableness tool provides an estimated rent based on surveyed market conditions specific to the PHA.
- Created and maintained several online mapping applications in support of various tax credits, including Historic Tax Credit Mapping Tool and QCT/DDA mapping tool.

STATEMENT OF PROFESSIONAL QUALIFICATIONS

Matthew A. Yunker

I. Education

The Ohio State University – Columbus, OH
Bachelor of Science in Family Financial Management

II. Professional Experience

Manager, Novogradac & Company LLP
Associate Developer, PIRHL Developers
Development Associate, WXZ Development/Zelnik Realty
Investment Real Estate Broker, Marcus & Millichap
Associate Relationship Manager, National City Bank

III. Real Estate Assignments

A representative sample of Due Diligence, Consulting, or Valuation Engagements includes:

- Conducted numerous market and feasibility studies for family and senior affordable housing. Properties are generally Section 42 Low Income Housing Tax Credit Properties. Local housing authorities, developers, syndicators and lenders have used these studies to assist in the financial underwriting and design of LIHTC properties. Analysis typically includes; physical inspection of site and market, unit mix determination, demand projections, rental rate analysis, competitive property surveying and overall market analysis. Market studies completed in: Alaska, District of Columbia, Florida, Georgia, Illinois, Mississippi, Michigan, Nevada, New Jersey, and Virginia.
- Assisted in numerous appraisals of proposed new construction and existing Low-Income Housing Tax Credit properties.
- Conducted and assisted in market studies for projects under the HUD guidelines.
- Assisted in appraisals of proposed new construction properties under the HUD guidelines.
- Assisted in valuations of subsidized properties according to HUD guidelines.
- Performed all aspects of data collection and data mining for web-based rent reasonableness systems for use by local housing authorities.

- Assisted in numerous valuations of partnership interests for a variety of functions including partnership sale, charitable donation, partner disputes, determination of exit strategies, etc.

STATEMENT OF PROFESSIONAL QUALIFICATIONS

ALAN B. O'CONNELL

I. Education

The Ohio State University, Columbus, Ohio
Master of City and Regional Planning

Kent State University, Kent, Ohio
Bachelor of Arts in Geography

II. Professional Experience

Analyst, *Novogradac & Company LLP*
Director of Mapping, *CartoFront, Inc*
Transportation Coordinator, *Coyote Logistics*
Graduate Researcher, *Urban Land Institute*
Intern Planner, *City of New Albany, Ohio*

III. Real Estate Assignments

A representative sample of Due Diligence, Consulting, or Valuation Engagements includes:

- Prepared market studies for proposed Low-Income Housing Tax Credit, market rate, HOME financed, USDA Rural Development, and HUD subsidized properties, on a national basis. Analysis includes property screenings, market analysis, comparable rent surveys, demand analysis based on the number of income qualified renters in each market, supply analysis, and operating expenses analysis.
- Analyze and research economic trends such as unemployment, average wages, median income levels, and demand for low income housing in the target market area.
- Research web-based rent reasonableness systems and contact local housing authorities for utility allowance schedules, payment standards, and housing choice voucher information.
- Assisted in appraisals of proposed new construction, rehabilitation, and existing Low-Income Housing Tax Credit properties, USDA Rural Development, and market rate multifamily developments. Analysis includes property screenings, valuation analysis, rent comparability studies, expense comparability analysis, determination of market rents, and general market analysis.
- Prepared market studies and appraisals for projects under the HUD Multifamily Accelerated Processing program.
- Assisted in the preparation of Rent Comparability Studies for expiring Section 8 contracts for subsidized properties located throughout the United States. Engagements included site visits to the subject property, interviewing and inspecting potentially comparable properties, and the analyses of collected data including adjustments to comparable data to determine appropriate adjusted market rents using HUD form 92273.