

INDUSTRIAL AND COMMERCIAL LAND INVENTORY
FREDERICK COUNTY, MARYLAND

Synopsis

February 23, 2006

Prepared by
The Division of Planning and
The Office of Economic Development

Methodology

Development of the Database

The GIS (Geographic Information System) component of this analysis was two fold, comprising a data creation and a data extraction procedure. The following methodology will explore the creation of the information and layers that make up the Commercial Industrial Land Database (CILD).

Since, a localized commercial property base layer is beyond the reach of the Frederick County GIS, at this time, staff utilized two external source base layers. The first base data source is Maryland Property View. This is a GIS layer available through the Maryland Department of Planning. The layer consists of a large variety of data fields and information relating to property tax assessment. The data associated with the Maryland Property View is gathered and maintained by the Maryland State Department of Taxation, for the sole purpose of assessing land taxes. The data is not designed to create the level of land use inventory that was desired for this inventory.

Therefore, to aid in the deficiencies of localized land use information of the Frederick County GIS, staff utilized CoStar information. CoStar is a commercial real estate database maintained by realtors. The Frederick County Office of Economic Development has purchased the usage of this program. They were able to export a snapshot of commercial properties available in the database in four categories: land, flex, commercial, and industrial. The four excel spreadsheets they were able to export from CoStar were consolidated into one and imported into GIS using the Latitude and Longitude coordinates in the database. This resulted in 403 geo-coded points.

Once both data sources were imported into the GIS, staff refined the points to our analytical needs. Maryland Property View is represented as the centroid of a parcel. In Frederick County we have over 88,000 parcel points. Staff refined this data layer to include only the commercial aspects of taxable land. In the over 100 data fields in the Maryland Property View database staff decided to use the land use description field, "DESCLU" in order to query out the commercial parcels in Frederick County. Included in our query were any properties described as Commercial, Commercial Condominium, Commercial Residential, Exempt Commercial, Industrial, and Residential Commercial. This resulted in 5,165 parcel points.

The problem of defining commercial and industrial land became an issue while developing the Database. According to Tax Assessments, properties such as churches, cemeteries, schools, fire stations, private clubs, electrical poles, etc. are considered commercial/industrial. Given the obvious non-commercial nature of these types of uses, they were ultimately not considered commercial or industrial for the purposes of this project.

One important aspect of the analysis was to determine weather the land was developed or undeveloped. Using the point layer data we currently had there was no good way to determine this. Therefore, the 2000 orthophotography was overlaid on top of the point layer and digitized parcels. If the digitized parcel showed there was a building in 2000, the point was moved to the middle of the building, rather then the parcel centroid and considered it to be developed. If there was no building on the parcel it was considered

undeveloped. Hence, even though the base layers were as of 2004 the developed information is a bit out of date and is only as of 2000 as it was the best available data for the purpose of this analysis and our resources.

Once the Maryland Property View data layer was more manageable we could begin to look at the individual property points as defined by both Maryland Property View and CoStar. The information received from both sources is different and they serve different purposes. Maryland Property View is for tax assessment and CoStar is for real estate investment. Neither one of these sources was meant to give an overall commercial land inventory; both hold very different types of information.

For the purposes of this study we needed to create a polygon or parcel layer, to more accurately obtain acreage information. Since Maryland Property View is the parcel centroid and there were 5,165 points compared to 403 points we decided to incorporate the CoStar points into the Maryland Property View point layer. In order to do this a unique identifier or serial number was created. If the serial number is between 1-10,000 the point was based off of Maryland Property View if the serial number is above 30,000 the point was obtained from CoStar.

From the point information staff digitized each parcel off the raster tax maps to create both a point and a commercial polygon layer. Since CoStar had no tax assessment reference each point had to be evaluated individually to see if an association to a given tax parcel could be matched. Most of the 403 points matched with a tax assessment record however, there were about 50 points that did not. These points were disregarded from the rest of the analysis because the polygon layer could not be digitized.

Once the polygons were digitized, it became apparent that the way in which commercial land is defined through the tax assessments is not the same definition needed for this analysis. For example, for assessment purposes land such as churches, cemeteries, recreational, public safety, non-profit, electrical, railroads, apartments, and trailer parks are considered commercial. For the purpose of this analysis these uses were not included as commercial lands, and therefore they were queried out of the database leaving 2,913 commercial parcels.

Another hindering factor was the commercial properties located in the 12 incorporated municipalities of Frederick County. Downtown commercial properties were hard to define or extract from the assessment information and the task was difficult to achieve absent a geographic parcel layer. Staff also did not have complete GIS layers such as Land Use and Zoning from the municipalities to analyze the data similar to the County land being evaluated. For the purposes of our analysis we decided that only the parcels within the County, not in incorporated municipalities would be used, resulting in 956 parcels defined as commercial throughout the County.

Industry Mix

SECOND QUARTER 2005

INDUSTRY	Number of Reporting Units	Monthly Employment			Quarterly Average Employment	Total Wages	Average Weekly Wage Per Worker
		First	Second	Third			
TOTAL EMPLOYMENT	5,793	91,205	92,139	93,027	92,124	\$855,902,896	\$715
GOVERNMENT SECTOR - TOTAL	132	14,066	14,093	14,029	14,063	\$154,258,121	844
Federal Government	55	3,187	3,204	3,266	3,219	\$49,436,663	1,181
State Government	7	652	659	647	653	\$6,439,799	759
Local Government	70	10,227	10,230	10,116	10,191	\$98,381,659	743
PRIVATE SECTOR – TOTAL							
ALL INDUSTRIES	5,661	77,139	78,046	78,998	78,061	\$701,644,775	691
GOODS-PRODUCING	1,321	17,757	18,029	18,305	18,030	\$188,005,632	802
Natural Resources and Mining	51	566	563	579	569	\$4,222,908	571
Construction	1,076	10,767	10,981	11,152	10,967	\$110,607,148	776
Manufacturing	194	6,424	6,485	6,574	6,494	\$73,175,576	867
SERVICE PROVIDING	4,320	59,370	60,005	60,681	60,019	\$513,524,338	658
Trade, Transportation, and Utilities	1,106	16,126	16,185	16,258	16,190	\$125,781,378	598
Information	97	1,563	1,583	1,578	1,575	\$17,338,350	847
Financial Activities	516	7,798	7,790	7,847	7,812	\$87,071,255	857
Professional and Business Services	1,137	12,196	12,357	12,485	12,346	\$145,677,857	908
Education and Health Services	551	10,332	10,355	10,449	10,379	\$89,450,560	663
Leisure and Hospitality	431	8,228	8,585	8,866	8,560	\$28,112,691	253
Other Services	482	3,127	3,150	3,198	3,158	\$20,092,247	489
UNCLASSIFIED	20	12	12	12	12	\$114,805	736

Source: Maryland Department of Labor, Licensing and Regulation, 2nd quarter of 2005

Land Supply Characteristics

Overall Acreage

There are 428,294 acres in Frederick County. Excluding the acres within the municipalities (25,402), the number of acres under the jurisdiction of the County totals **402,892 acres**.

Total Commercial and Industrial Acreage by Inventory Area

	Comp Plan	Zoning	Difference	% Difference
Total Acres	15,170.4	1,3583.9	1,586.5	11.68%
% of County Total	3.77%	3.37%		

Distribution of Land by Planning Region

Planned and Zoned Commercial/Industrial Acreage by Planning Region

Planning Region	Comp Plan	Zoning	Difference	% Difference
Adamstown	4,098.3	3,911.9	186.4	4.8%
Brunswick	301.5	294.5	7	2.4%
Frederick	3,791.9	2,831	960.9	33.94%
Middletown	249	128.1	120.9	94.4%
New Market	1,005	706.3	298.7	42.3%
Thurmont	658.6	653.9	4.7	0.7%
Urbana	1,925.4	1,765.4	160	9%
Walkersville	3,140.7	3,292.8	-152.1	-4.6%
Total Acres	15170.4	13583.9	1586.5	11.68%

Percent of Countywide Distribution of Planned and Zoned Commercial/Industrial Acres

Planning Region	Comp Plan	Zoning
Adamstown	27.0%	28.8%
Brunswick	2%	2.2%
Frederick	25.0%	20.8%
Middletown	1.6%	.9%
New Market	6.6%	5.2%
Thurmont	4.3%	4.8%
Urbana	12.7%	13.0%
Walkersville	20.7%	24.2%

Development Status of Land by Planning Region

Development Status of Commercial/Industrial Land in the Comprehensive Plan

Planning Region	Designated Com/Ind Land	Developed Acreage	Undeveloped Acreage	% Developed	% of Total Developed Acreage
Adamstown	4098.3	2576.6	1521.7	62.9%	44.4%
Brunswick	301.5	47	254.5	15.6%	0.8%
Frederick	3791.9	1527.1	2264.8	40.3%	26.3%
Middletown	249	53.8	195.2	21.6%	0.9%
New Market	1005	101.6	903.4	10.1%	1.8%
Thurmont	658.6	219.2	439.4	33.3%	3.8%
Urbana	1925.4	323.4	1602	16.8%	5.6%
Walkersville	3140.7	956.8	2183.9	30.5%	16.5%
<i>Total</i>	15160.4	5805.5	9354.9	38.3%	100.0%

Development Status of Commercial/Industrial Land in Zoning

Planning Region	Zoned Com/Ind Land	Developed Acreage	Undeveloped Acreage	% Developed	% of Total Developed Acreage
Adamstown	3911.9	2589.6	1322.3	66.2%	45.03%
Brunswick	294.5	50.1	244.4	17.1%	0.87%
Frederick	2831	1336.9	1491.1	47.2%	23.25%
Middletown	129.7	59.5	70.2	46.5%	1.03%
New Market	706.3	102.7	603.6	14.5%	1.79%
Thurmont	653.9	226.1	427.8	34.6%	3.93%
Urbana	1547.1	338.5	1208.6	19.2%	5.89%
Walkersville	3292.8	1047.5	2245.3	31.8%	18.21%
<i>Total</i>	13583.9	5750.9	7833	42.3%	100.00%

Distribution of Land by Zoning and Comprehensive Plan Category

Commercial/Industrial Land by Land Use and Zoning Category

Comp Plan		Zoning			
	Total Acreage	% of Total	Total Acreage	% of Total	Difference in Acres
CR	219.5	1.4%	--	---	219.5
GC	1306	8.6%	GC	1318.7	-12.6
GI	2654.3	17.6%	GI	2965.8	-301.6
HS	111.6	0.7%	HS	170.2	-58.6
LI	3029.7	20%	LI	2509.4	520.3
MM	3997.9	26.4%	MM	3797.5	200.4
--	---	---	MXD	357.3	-357.3
ORI	3160.8	20.8%	ORI	1471.6	1689.2
VC	680.6	4.5%	VC	690	-9.4
<i>Total</i>	15170.4	100.0%	<i>Total</i>	13583.9	100.0%
					1586.5
					11.7%

Development Status of Land by Zoning and Comprehensive Plan Category

Commercial/Industrial Acreage by Land Use and Zoning Category

Comprehensive Plan			Zoning		
	Total Acreage	Developed Acreage	Percentage Developed	Total Acreage	Developed Acreage
CR	219.5	118.5	54.0%	--	---
GC	1306	538.9	41.3%	GC	1318.7
GI	2654.3	1849	69.4%	GI	2965.8
HS	111.6	7.4	6.6%	HS	170.2
LI	3029.7	1215.6	40.1%	LI	2509.4
MM	3997.9	1650.5	41.3%	MM	3797.5
--	---	---	---	MXD	660.7
ORI	3160.8	342.4	10.8%	ORI	1471.6
VC	680.6	83.3	12.2%	VC	690
<i>Total</i>	15170.4	5805.6	38.3%	<i>Total</i>	13583.9
					5750.9
					42.3%

Distribution by Acreage and Development of Land Use and Zoning Categories

Comprehensive Plan		Zoning	
	% of Developed Acreage		% of Developed Acreage
CR	1.4%	2.0%	---
GC	8.6%	9.3%	GC 9.7%
GI	17.6%	31.8%	GI 21.8%
HS	0.7%	0.1%	HS 1.3%
LI	20%	20.9%	LI 18.5%
MM	26.4%	28.4%	MM 28%
---	---	---	MXD 4.9%
ORI	20.8%	5.9%	ORI 10.8%
VC	4.5%	1.4%	VC 5.1%

Improved Value

Information regarding the square feet of structures on commercial/industrial land and the improved value of property is incomplete. Information about square footage was gathered from 617 out of 776 (80%) developed parcels. Improvement values were obtained from 695 out of 776 (90%) records.

Total Area and Improved Value of Structures by Land Use and Zoning Categories

Comprehensive Plan		Zoning		
	Total Building Footprint SF	Improved Value	Total Building Footprint SF	Improved Value
A	183,254	\$9,520,300	A	312,443
CR	344,473	\$13,194,900	GC	3,611,004
GC	3,244,189	\$199,734,800	GI	3,094,046
GI	3,491,780	\$68,244,400	HS	41,465
HDR	85,218	\$8,099,800	LI	6,643,089
I	62,812	\$4,908,000	MM	218,218
LDR	277,081	\$18,367,560	MXD	1,254,007
LI	6,000,202	\$267,092,600	ORI	906,570
MDR	11,329	\$1,109,500	PUD	297,290
MM	296,386	\$9,052,400	R1	133,097
ORI	16,031,263	\$758,147,460	R3	42,307
PO	9,646	\$226,400	R5	5,838
RC	346,697	\$23,531,710	R8	8,024
RurC	261,037	\$8,013,882	RC	82,494
RurH	10,438	\$364,400	VC	304,718
RurN	83,076	\$5,694,200		
RurS	810	\$31,200		
VC	179,681	\$9,057,260		
Total	30,919,372	\$1,404,390,772		
			Total 16,954,610	\$807,072,100

Business Parks

	Total Acreage
Adamstown	2247.70
Brunswick	9.90
Frederick	880.10
Middletown	46.60
New Market	53.70
Thurmont	0
Urbana	428.40
Walkersville	28.40
Total	3694.80

Site Advantages

Proximity to Infrastructure

Proximity of Comprehensive Plan Commercial/Industrial Land to Infrastructure

	<i>Within 1/2 Mile</i>	<i>Between 1/2-1 Mile</i>	<i>Greater Than 1 Mile</i>
Interchange Ramp	3758.3	3308.5	8103.8
Freeway	5655.2	2137.6	7377.8
Principal Arterial	4218.9	2936.4	8015.3
Minor Arterial	8573.5	4581.2	2015.9
Proposed Minor Arterial	42.9	188.0	14939.7
MARC Station	367.2	992.1	13811.3
Airport	8.6	90.0	15072.0
Cell Tower	845.6	2381.6	11943.4

Proximity of Zoned Commercial/Industrial Land to Infrastructure

	<i>Within 1/2 Mile</i>	<i>Between 1/2-1 Mile</i>	<i>Greater Than 1 Mile</i>
Interchange Ramp	2841.1	2686.3	8056.2
Freeway	4136.9	1888.2	7558.5
Principal Arterial	4114.0	2527.4	6942.2
Minor Arterial	7464.7	4124.4	1994.5
Proposed Minor Arterial	42.9	136.0	13404.7
MARC Station	408.1	956.5	12219.0
Airport	0.0	20.5	13563.1
Cell Tower	680.0	1861.5	11042.1

Planned Water Service

Planned Water Service by Com/Ind Zoning Designations

	GC	GI	HS	LI	MM	MXD	ORI	VC	Total	
Water Classification	NPS	386.8	912.5	141.5	177.6	3655.2	3.7	12.8	379.0	5669.1
	US	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	W5	228.9	1442.7	28.6	1103.0	126.8	0.4	803.3	194.3	3928.0
	W4	69.7	0.7	0.0	126.4	0.4	0.6	367.9	10.3	576.0
	W3	109.5	196.0	0.1	295.6	0.0	399.2	130.7	41.2	1172.3
	W2/1	523.8	432.3	0.0	797.5	14.9	256.8	156.9	67.1	2249.3
	Total	1318.7	2984.2	170.2	2500.1	3797.3	660.7	1471.6	691.9	13594.7
Sewer Classification	NPS	355.5	925.1	142.7	154.1	3655.1	3.7	330.6	203.2	5770.0
	US	0.0	1.5	0.0	9.3	0.2	0.0	0.0	0.2	11.2
	S5	203.9	1315.6	27.4	1191.1	129.6	0.4	803.2	77.8	3749.0
	S4	79.6	0.0	0.1	102.4	0.4	0.6	230.9	0.0	414.0
	S3	114.3	195.0	0.0	161.0	0.0	335.3	130.4	57.3	993.3
	S2/1	565.4	528.6	0.0	891.5	12.2	320.7	158.8	170.8	2648.0
	Total	1318.7	2965.8	170.2	2509.4	3797.5	660.7	1653.9	509.3	13585.5

Planned Sewer Service

Planned Water Service by Com/Ind Comp Plan Designations

	CR	GC	GI	HS	LI	MM	ORI	VC	Total	
Water Classification	NPS	212.5	239.1	416.3	111.3	363.6	3573.1	26.0	0.7	4942.6
	US	0.0	0.0	1.1	0.0	11.8	2.5	0.0	0.0	15.4
	W5	4.2	339.9	1642.8	2.5	1480.9	140.2	1799.9	309.7	5720.1
	W4	0.7	84.3	0.7	0.4	220.8	0.4	339.4	147.0	793.7
	W3	0.2	118.5	173.6	1.3	286.4	0.0	541.7	157.9	1279.6
	W2/1	1.9	550.3	396.5	9.1	784.5	7.0	453.8	65.3	2268.4
	Total	219.5	1332.1	2631.0	124.6	3148.0	3723.2	3160.8	680.6	15019.8
Sewer Classification	NPS	214.4	196.1	440.0	111.3	346.6	3573.7	48.6	0.9	4931.6
	US	0.0	0.0	1.1	0.0	11.8	2.5	0.0	0.0	15.4
	S5	4.2	323.6	1573.8	9.0	1576.9	139.4	1844.5	151.9	5623.3
	S4	0.7	90.4	0.0	2.9	195.5	0.4	339.2	136.7	765.8
	S3	0.2	120.3	174.1	0.0	169.2	0.0	503.1	174.5	1141.4
	S2/1	0.0	575.6	475.3	1.4	850.2	7.2	448.2	216.8	2574.7
	Total	219.5	1306.0	2664.3	124.6	3150.2	3723.2	3183.6	680.8	15052.2

Development Constraints

Environmental Constraints

The environmental factors considered included wetlands, floodplains, and steep slopes.

Commercial/Industrial Acreage in Comp Plan and Zoning With Environmental Constraints by Planning Region

	Zoning			Comprehensive Plan		
	Zoned Land	Env. Constraints	% of Total	Planned Land	Env. Constraints	% of Total
Adamstown	3911.9	690.0	0.0%	4098.3	503.8	12.3%
Brunswick	294.5	25.9	8.8%	301.5	24.4	8.1%
Frederick	2831	420.5	14.9%	3791.9	472.6	12.5%
Middletown	128.1	13.6	10.6%	249	21.1	8.5%
New Market	706.3	85.4	12.1%	1005	165.5	16.5%
Thurmont	653.9	98.3	15.0%	658.6	88.4	13.4%
Urbana	1765.4	110.0	6.2%	1925.4	130.4	0.0%
Walkersville	3292.8	493.7	15.0%	3140.7	266.2	8.5%
Total	13583.9	1937.4	14.3%	15170.4	1672.4	11.0%

Commercial/Industrial Acreage in Comp Plan and Zoning With Environmental Constraints by Land Use Category

	Zoning			Comprehensive Plan		
	Zoned Land	Env. Constraints	% of Total	Planned Land	Env. Constraints	% of Total
CR	0	0.0	0.0%	219.5	25.1	11.4%
GC	1318.7	168.5	12.8%	1306.1	150.8	11.5%
GI	2965.8	515.7	17.4%	2664.2	348.3	13.1%
HS	170.2	15.3	9.0%	111.6	7.4	6.6%
LI	2509.4	348.5	13.9%	3029.7	364.9	12.0%
MM	3797.5	515.7	13.6%	3997.9	334.1	8.4%
MXD	660.7	131.3	19.9%	0	0.0	0.0%
ORI	1471.6	157.5	10.7%	3160.8	328.8	10.4%
VC	690	84.9	12.3%	680.6	113.0	16.6%
Total	13583.9	1937.4	14.3%	15170.4	1672.4	11.0%

Forested Area

Forested Commercial/Industrial Acreage in Comp Plan and Zoning by Planning Region

	Zoning			Comprehensive Plan		
	Zoned Land	Forested Area	% of Total	Planned Land	Forested Area	% of Total
Adamstown	3911.9	370.1	0.0%	4098.3	312.9	7.6%
Brunswick	294.5	75.0	25.5%	301.5	73.0	24.2%
Frederick	2831	152.3	5.4%	3791.9	178.4	4.7%
Middletown	128.1	14.1	11.0%	249	15.4	6.2%
New Market	706.3	187.6	26.6%	1005	235.5	23.4%
Thurmont	653.9	199.3	30.5%	658.6	190.6	28.9%
Urbana	1765.4	468.1	26.5%	1925.4	467.1	0.0%
Walkersville	3292.8	727.4	22.1%	3140.7	669.8	21.3%
Total	13583.9	2193.9	16.2%	15170.4	2142.7	14.1%

Forested Commercial/Industrial Acreage in Comp Plan and Zoning by Land Use Category

	Zoning			Comprehensive Plan		
	Zoned Land	Forested Area	% of Total	Planned Land	Forested Area	% of Total
CR	0	0.0	0.0%	219.5	17.1	7.8%
GC	1318.7	145.3	11.0%	1306.1	131.8	10.1%
GI	2965.8	389.8	13.1%	2664.2	327.7	12.3%
HS	170.2	53.6	31.5%	111.6	64.0	57.3%
LI	2509.4	439.7	17.5%	3029.7	463.0	15.3%
MM	3797.5	767.9	20.2%	3997.9	635.7	15.9%
MXD	660.7	57.2	8.7%	0	0.0	0.0%
ORI	1471.6	314.9	21.4%	3160.8	399.1	12.6%
VC	690	25.5	3.7%	680.6	104.3	15.3%
Total	13583.9	2193.9	16.2%	15170.4	2142.7	14.1%