

# ATTACHMENT 1

## Memorandum

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Subject: Financial Modeling Under Existing and CR Zoning

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This analysis assessed the economic consequences of development under a range of zoning, Floor Area Ratios (FARs) and parking solutions. Each financial model is a static pro forma that compares the total costs of development with the investment justified by the potential returns from leasing or condo sales. The pro formas solve for “Residual Land Value”, which represents the amount a developer could afford to pay for the project’s land and still make an acceptable return on investment.

### Development Under Existing Zoning

The first set of analyses deals with development under the existing zoning categories most appropriate to White Flint:

- CBD Standard and Optional Method;
- TMX-2 Standard and Optional Method;
- C2 Standard Method and Mixed-Use; and
- C2 TOMU.

They test the potential for development on a 2.5-acre site in the White Flint area for four land use combinations:

- office and retail space;
- residential apartments and retail space;
- residential condominiums and retail space; and
- retail only.

Table 1 on the following page summarizes the provisions of the different zoning regiments. Table 2 on page 3 describes the various scenarios and differences imposed by those zoning requirements. Appendix A summarizes the basic model inputs for different land uses. Appendix B provides the pro formas by land use.

Table 1. Requirements Under Existing Zoning Categories								
	CBD 2 Standard	CBD 2 Optional	TMX - 2 Standard	TMX - 2 Optional	C2 Standard Commercial	C2 Standard Mixed Use	C2 Standard TOMU	
<b>Commercial Development</b>								
Maximum FAR	2.0	4.0	0.5	2.0	1.5	1.0	0.8	
Maximum Height	60	143	42	200	42	75	180	
Maximum Coverage	75%	75%	75%	90%	NA	75%	75%	
Minimum Lot Area	-	18,000	-	18,000	-	-	40,000	
Frontage Improvements	No	Yes	Yes	Yes	No	No	No	
Building Lot Termination (BLT)	No	No	No	Yes	No	No	No	
Public Use Space (% of site)	10%	20%	10%	20%	10%	10%	10%	
Off-Site Parkland/ Public ROW Dedication	No	No	No	No	No	No	25%	
<b>Residential Development</b>								
Maximum FAR	2.0	4.0	0.5	2.0	NA	2.0	1.8	
Maximum Height	60	143	42	200	NA	75	180	
Maximum Coverage	75%	80%	80%	80%	NA	75%	75%	
Minimum Lot Area	-	18,000	-	18,000	NA	NA	40,000	
Frontage Improvements	No	Yes	Yes	Yes	NA	No	No	
Building Lot Termination (BLT)	No	No	No	Yes	NA	No	No	
Public Use Space (% of site)	10%	20%	10%	20%	NA	10%	10%	
Off-Site Parkland/ Public ROW Dedication	No	No	No	No	NA	No	25%	

Sources: Montgomery County Zoning Code; Partners for Economic Solutions, 2009.



Table 2: Development Scenarios for Modeling

	CBD 2 Standard	CBD 2 Optional	TMX - 2 Standard	TMX - 2 Optional	C2 Standard Commercial	C2 Standard Mixed Use	C2 Standard TOMU
Site Size (in acres)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Distance to Metro	1,200 feet	1,200 feet	1,200 feet	1,200 feet	1,200 feet	1,200 feet	1,200 feet
<b>Office/Retail Development</b>							
FAR	0.5-2.0	4.0	0.5	1.0, 1.5, 2.0	1.5	NA	NA
First-Floor Retail @ 0.4 FAR	0.4 FAR	0.4 FAR	0.2 FAR	0.4 FAR	0.4 FAR	NA	NA
Office for Balance of Space	Balance	Balance	Balance	Balance	Balance	NA	NA
Structure Type	Stick-Built	High-Rise	Stick-Built	Stick-Built	Stick-Built	NA	NA
Parking Type (1)	Above	Above, Below	Surface	Above	Above	NA	NA
Parking Ratio per 1,000 s.f. Retail (2)	5.76, 9.0	4.9	9.00	4.9	4.9	NA	NA
Parking Ratio per 1,000 s.f. Office	2.4	2.4	2.4	2.4	2.4	NA	NA
Public Use Space (in s.f.)	10%	20%	10%	20%	10%	NA	NA
<b>Residential/Retail Development</b>							
FAR	0.5-2.0	4.0	0.5	1.0, 1.5, 2.0	NA	1.0, 1.5	2.0
First-Floor Retail @ 0.4 FAR	0.4 FAR	0.4 FAR	0.4 FAR	0.4 FAR	NA	0.4 FAR	0.4 FAR
Residential for Balance of Space	Balance	Balance	Balance	Balance	NA	Balance	Balance
MPDUs (3)	12.5%	12.5%	12.5%	12.5%	NA	12.5%	12.5%
Workforce Hsg Units (% of market) (4)	10.0%	10.0%	10.0%	10.0%	NA	10.0%	10.0%
Structure Type	Stick-Built	High-Rise	Stick-Built	Stick-Built	NA	Stick-Built	Stick-Built
Parking Type (1)	Surface, Above	Above, Below	Surface	Above	NA	Above	Above
Parking Ratio per 1,000 s.f. Retail (2)	9.0	9.0	9.0	9.0	NA	9.0	9.0
Parking Ratio - Average per Unit (5)	1.20	1.20	1.00	1.00	NA	1.20	1.20
Public Use Space (in s.f.)	10%	20%	10%	20%	NA	10%	10%
Off-Site Parkland, Right-of-Way Dedication	NA	NA	NA	NA	NA	NA	25%
<b>Residential/Office Development</b>							
FAR	0.5-2.0	4.0	0.5	1.0, 1.5, 2.0	NA	1.0, 1.5	2.0
First-Floor Office @ 0.6 FAR	0.6 FAR	0.6 FAR	0.6 FAR	0.6 FAR	NA	0.6 FAR	0.6 FAR
Residential for Balance of Space	Balance	Balance	Balance	Balance	NA	Balance	Balance
MPDUs	12.5%	12.5%	12.5%	12.5%	NA	12.5%	12.5%
Workforce Housing Units	10.0%	10.0%	10.0%	10.0%	NA	10.0%	10.0%
Structure Type	Stick-Built	High-Rise	Stick-Built	Stick-Built	NA	Stick-Built	Stick-Built
Parking Type (1)	Surface, Above	Above, Below	Surface	Above	NA	Above	Above
Parking Ratio per 1,000 s.f. Office	2.4	2.4	2.4	2.4	NA	2.4	2.4
Parking Ratio - Average per Unit (5)	1.20	1.20	1.00	1.00	NA	1.20	1.20
Public Use Space (in s.f.)	10%	20%	10%	20%	NA	10%	10%
Off-Site Parkland, Right-of-Way Dedication	NA	NA	NA	NA	NA	NA	25%
<b>Retail Development</b>							
FAR	0.35		0.35		0.35		
Retail Square Feet	All		All		All		
Structure Type	Stick-Built		Stick-Built		Stick-Built		
Parking Type (1)	Surface		Surface		Surface		
Parking Ratio per 1,000 s.f. Retail (2)	9.0		9.0		9.0		
Public Use Space (in s.f.)	10%		10%		10%		

Notes: (1) Surface parking up to 0.5 FAR; tuck-under parking 0.5 to 1.0 FAR; above-ground structure 1.0 FAR and above.

(2) General retail at 5.0 spaces per 1,000 square feet and restaurants at 25.0 spaces per 1,000 square feet. Assumes 20 percent restaurant and 80 percent general retail. Adjusted for shared use.

(3) MPDUs are included at 12.5 percent of the base number of housing units before consideration of workforce housing units. MPDUs are 10 percent smaller than market-rate units.

(4) Workforce Housing Units are included at 10.0 percent of the number of market-rate housing units. Zoning allows additional FAR and height to accommodate WFHUs. WFHUs are 10 percent smaller than market-rate units.

(5) Assumes 35 percent one-bedroom units and 65 percent two-bedroom units.

Source: Partners for Economic Solutions, 2009.

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## Resulting Land Values

Table 3 summarizes the residual land values resulting from each scenario and zoning category. The values are expressed both in terms of value per square foot of land and value per FAR square foot. They are impacted by several key factors:

- Construction Type – Low-rise development of five stories or less can be “stick-built” construction at a significantly lower cost than high-rise construction, which requires different techniques and materials as well as higher labor costs.
- Parking – The type of parking has substantial cost implications. Surface parking can be developed for as little as \$2,700 per space while construction costs for parking in above-ground structures range from \$20,000 to \$33,750 per space depending on the design and need for mechanical ventilation. The lowest cost is for “tuck-under” parking with a single level of parking on the building’s first floor, but its use is limited to lower density products with lower parking requirements. At the high end, parking built as the podium base for a building with other uses lining its perimeter will require expensive ventilation. Below-ground parking is most expensive at roughly \$41,200 per space. These per-space costs can be much higher when the site is irregularly shaped or has dimension less than optimal for parking garage layouts.
- Parking Ratios – Montgomery County sets minimum parking requirements for development under existing zoning categories with some allowances for reduced parking near transit stations. It also allows for reduced parking where spaces are shared among different land uses that generate peak parking demand at different hours of the day. For example, retail-only development requires 5.0 spaces per 1,000 square feet of general retail development and 25 spaces per 1,000 square feet of restaurants. That requirement can be cut almost in half by sharing with office uses.

Typically, an increase in density will be reflected in a higher land value per square foot of land but a lower value per FAR square foot due to higher costs to accommodate the density. Parking becomes much more expensive, and construction costs increase at higher buildings heights.

Appendix C compares returns for each existing zoning category across the different use potentials.





Table 3. Residual Land Values Under Alternative Land Use Mixes and Densities

Zoning Category	Office/Retail		Apartments/Retail (1)		Condominiums/Retail (1)		Retail Only (3)	
	Residual Land Value per		Residual Land Value per		Residual Land Value per		Residual Land Value per	
	Land SF	FAR SF	Land SF	FAR SF (2)	Land SF	FAR SF (2)	Land SF	FAR SF
<b>CBD Standard</b>								
0.5 FAR	\$67	\$133	\$60	\$120	\$64	\$129	\$74	\$212
1.0 FAR	\$98	\$98	\$85	\$81	\$123	\$118	NA	NA
1.5 FAR	\$115	\$77	\$40	\$25	\$129	\$80	NA	NA
2.0 FAR	\$153	\$76	\$49	\$23	\$183	\$85	NA	NA
<b>CBD Optional - 4.0 FAR</b>								
Above-Ground Structured Parking	\$169	\$42	-\$6	-\$1	\$294	\$68	NA	NA
Below-Ground Structured Parking	\$53	\$13	-\$86	-\$20	\$220	\$50	NA	NA
<b>TMX-2 Standard</b>								
0.5 FAR	\$67	\$133	\$60	\$119	\$65	\$129	\$74	\$212
<b>TMX-2 Optional</b>								
1.0 FAR	\$90	\$90	\$79	\$76	\$116	\$111	NA	NA
1.5 FAR	\$105	\$70	\$39	\$25	\$122	\$76	NA	NA
2.0 FAR	\$140	\$70	\$52	\$24	\$176	\$82	NA	NA
<b>C2 Standard</b>								
Commercial - 1.5 FAR	\$115	\$77	NA	NA	NA	NA	\$74	\$212
Mixed Use - 1.0 FAR	NA	NA	\$85	\$81	\$123	\$118	NA	NA
Mixed Use - 1.5 FAR	NA	NA	\$68	\$25	\$129	\$80	NA	NA
TOMU	NA	NA	\$111	\$52	\$223	\$104	NA	NA

Note: (1) Residual land values for apartment/retail development are much lower than those for condominium/retail development because of greater market constraints on rents than on condominium prices.

(2) Includes Bonus FAR for workforce housing.

(3) Retail developed at a 0.35 FAR with free surface parking.

Source: Partners for Economic Solutions, 2009.

## Development Under CR Zoning

The second set of analyses focuses on the financial implications of developing under CR zoning with different land use mixes and selection of incentive density provisions. Three development sites within White Flint were selected for analysis. They include Site #1 at the corner of Rockville Pike and Nicholson Lane (now occupied by Anthropologie), Site #2 northwest from the intersection of Nicholson Lane and Nebel Court (including a portion of the Metro bus lot), and Site #3 southeast of the Nicholson Lane/Nebel Court intersection (currently occupied by the La-Z-Boy showroom and other businesses). The sites vary in size and zoning as follows:

- Site #1 has 0.93 acres zoned CR 4.0, C 3.5, R 3.5, H 300, which allows a maximum FAR of 4.0, of which no more than 3.5 FAR can be commercial or residential exclusively, and a maximum height of 300 feet;
- Site#2 has 3.1 acres zoned CR 3.0, C 1.5, R 2.5, H 200; and
- Site #3 has 7.7 acres zoned CR 2.5, C 1.5, R 2.0, H 70.

The models detailed in Table 4 included:

- Site #1
  - Mixed residential/office/retail
  - Condominium residential/retail
  - Office/retail
- Site #2
  - Condominium residential/retail
  - All condominium residential
- Site #3
  - Condominium residential/retail
  - All condominium residential

Each development has a density sufficient to require structured parking, assumed to be developed in an above-ground structure to avoid the significant cost premium associated with below-ground parking.





Table 4. Development Scenarios for Modeling Under CR Zoning

	Site #1 - Nicholson Ln. at Rockville Pike		Site #2 - Nicholson Ln. at Nebel St. (NW)		Site #3 - Nicholson Ln. at Nebel St. (SE)	
	Alternative #1	Alternative #2	Alternative #3	Alternative #1	Alternative #2	Alternative #3
Site Size (in acres)	0.93	0.93	0.93	3.06	3.06	7.73
Distance to Metro	< 1/4 mile	< 1/4 mile	< 1/4 mile	1/4 to 1/2 mile	1/4 to 1/2 mile	1/4 to 1/2 mile
Zoning	CR4.0, C3.5, R3.5	CR4.0, C3.5, R3.5	CR4.0, C3.5, R3.5	CR3.0, C1.5, R2.5	CR3.0, C1.5, R2.5	CR2.5, C1.5, R2.0
Maximum Height	300 feet	300 feet	300 feet	200 feet	200 feet	70 feet
<b>Use Mix</b>						
FAR	4.0	3.9	3.5	2.92	2.5	2.41
Building Gross Square Feet	162,392	158,332	142,093	388,856	332,925	811,139
First-Floor Retail @ 0.4 FAR	0.4 FAR	0.4 FAR	0.4 FAR	0.4 FAR	0.0 FAR	0.4 FAR
Office Space	1.4 FAR	0.0 FAR	3.1 FAR	0.0 FAR	0.0 FAR	0.0 FAR
Residential Condominiums	2.2 FAR	3.4 FAR	0.0 FAR	2.5 FAR	2.5 FAR	2.0 FAR
Structure Type	High-Rise	High-Rise	High-Rise	High-Rise	High-Rise	Stick-Built
Public Use Space (in s.f.)	4%	4%	4%	6%	6%	10%
MPDUs	12.5%	12.5%	0.0%	12.5%	12.5%	12.5%
Workforce Housing Units (% of market)	10.0%	10.0%	0.0%	10.0%	10.0%	10.0%
Parking Type	Podium with Building Above	Podium with Building Above	Podium with Building Above	Above-Ground	Above-Ground	Above-Ground
Maximum Parking per 1,000 s.f. Retail (1)	3.60	9.85	4.90	9.00	NA	NA
Minimum Parking per 1,000 s.f. Retail (1)	0.72	1.97	0.98	3.60	NA	NA
Assumed Parking per 1,000 s.f. Retail	3.50	3.50	3.50	3.50	3.50	3.50
Maximum Parking per 1,000 s.f. Office	2.40	NA	2.40	NA	NA	NA
Minimum Parking per 1,000 s.f. Office	0.48	NA	0.48	NA	NA	NA
Assumed Parking per 1,000 s.f. Office	2.00	NA	2.00	NA	NA	NA
Maximum Parking per Residential Unit (2)	1.13	1.13	NA	1.19	1.19	1.19
Minimum Parking per Residential Unit (2)	0.68	0.68	NA	0.83	0.83	0.83
Assumed Parking per Residential Unit	1.00	1.00	NA	1.00	1.00	1.00
Maximum Parking per 1,000 s.f. Care Center	NA	NA	NA	6.5	NA	NA
Minimum Parking per 1,000 s.f. Care Center	NA	NA	NA	2.60	NA	NA
Assumed Parking per 1,000 s.f. Care Center	NA	NA	NA	2.60	NA	NA
Shared Car Spaces (3)	2	2	2	4	4	4



Table 4. Development Scenarios for Modeling Under CR Zoning (Continued)

	Site #1 - Nicholson Ln. at Rockville Pike		Site #2 - Nicholson Ln. at Nebel St. (NW)		Site #3 - Nicholson Ln. at Nebel St. (SE)	
	Alternative #1	Alternative #2	Alternative #1	Alternative #2	Alternative #1	Alternative #2
<b>Incentive Density Factors</b>						
Community Connectivity	Yes	Yes	Yes	Yes	Yes	Yes
Care Center (in s.f.)	-	-	2,000	-	2,000	-
Workforce Housing Units (% of market)	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Unit Mix and Size	No	No	No	No	No	No
Local Retail Preservation	No	No	No	No	No	No
Floor Plate Size	Yes	Yes	No	No	No	No
Podium/Tower Setback	No	No	No	No	Yes	No
Public Plaza/Open Space (in s.f.)	-	-	2,500	-	-	2,500
Streetscape, Off-Site (in s.f.)	-	-	-	-	-	-
Wow Factor	No	No	No	No	No	No
Transferable Development Rights	-	-	-	-	-	-
Dark Skies (# of fixtures)	-	-	-	-	-	-
LEED	No	No	Silver	Gold	Gold	No
Tree Canopy (in s.f.)	-	-	-	-	-	-
Vegetated Area (in s.f.)	-	-	-	5,000	-	-
Vegetated Roof (80% coverage, 60% of roof, in s.f.)	9,700	9,700	-	-	-	-
<b>Percent of Incentive Density</b>						
Incentive Density Factors Used	Transit 40%	Transit 40%	Transit 40%	Transit 30%	Transit 30%	Transit 30%
	Comm Conn 20%	Comm Conn 20%	Comm Conn 20%	Comm Conn 20%	Comm Conn 20%	Comm Conn 20%
	WFHU 20%	WFHU 20%	Care Ctr 10%	Comm Conn 20%	Care Ctr 10%	Comm Conn 20%
	Floor Plate 10%	Floor Plate 10%	WFHU 20%	WFHU 20%	WFHU 20%	WFHU 20%
Total Percent Needed/Earned	Veg. Roof 10%	Veg. Roof 10%	LEED Gold 20%	Veg. Area 5%	LEED Gold 20%	Plaza 5%
	100% / 100%	96% / 100%	97% / 100%	80% / 80%	96% / 100%	75% / 75%

(1) Retail parking assumes 20 percent restaurant and 80 percent general retail. Adjusted for shared use.

(2) Assumes 35 percent one-bedroom units and 65 percent two-bedroom units.

(3) One shared car space replaces six commercial spaces or three residential spaces. Assumes even split between commercial and residential.

Source: The Edgecombe Group; Partners for Economic Solutions, 2009.

Summarized in Table 5, the pro forma analyses of development under CR zoning show returns relatively comparable to or better than those achieved under existing zoning provisions.

Condominium/retail development under existing zoning categories supported land values of \$64 to \$183 per land square foot under CBD Standard zoning and \$294 under CBD Optional Method zoning with above-ground structured parking. Values were lower with TMX-2 zoning, ranging from \$65 to \$176 per land square foot, and with C2 zoning, which range from \$123 to \$223. With CR zoning and an FAR of 2.5 to 4.0, condominium/retail development would support land values of \$233 to \$286 per land square foot.

The models took advantage of the incentive density provisions to qualify for the maximum FAR using proximity to transit, workforce housing and community connectivity incentives to qualify for a large share of the total required incentive density. Various alternatives took advantage of care center, floor plate size, public plaza, LEED certification and green roof incentive density.

The Edgcombe Group prepared massing analyses to test the potential for developing the sites under CR zoning using a hypothetical mix of incentive density provisions. These massing studies appear in Appendix D.

In this massing and financial modeling exercise, we observed the following:

- The floor plate size restrictions did not work well with the 70-foot height limit closest to adjoining residential areas. The need to build above-ground parking along with buildings with an FAR of 2.5 left a limited building envelope, one that was incompatible with restricted floor plates.
- Mixed-use development with residential and retail did not typically reach the maximum FAR. Developing a single floor of retail space imposed an effective limit of 0.4 FAR on the commercial space.
- Underground parking is prohibitively expensive.
- The development's feasibility is closely linked to the amount of parking provided. There is a struggle between the financial imperative to reduce the amount of structured parking and the need to meet the demands of future tenants and residents. This is particularly true for retail development where shoppers are unlikely to pay enough to support the cost of building structured parking.
- Some of the incentives, such as public plazas, may be difficult to use on small sites.
- On parcels with irregular shapes, the requirement to build to the sidewalk imposes extra cost premiums and building inefficiencies by deviating from more efficient rectangular layouts.
- The value of incentive density varies with the FAR. A 20-percent incentive density in a 4.0 FAR zone is worth 0.7 FAR as opposed to 0.4 FAR in a 2.5 FAR zone.





Table 5. Alternative Developments with CR Zoning						
	Site #1 - Nicholson Ln. at Rockville Pike		Site #2 - Nicholson Ln. at Nebel St. (NW)		Site #3 - Nicholson Ln. at Nebel St. (SE)	
	Alternative #1	Alternative #2	Alternative #3	Alternative #1	Alternative #2	Alternative #1
<b>Development Characteristics</b>						
Floor Area Ratio	4.0	3.9	3.5	2.92	2.5	2.41
Site Size (SF)	40,598	40,598	40,598	133,170	133,170	336,572
Public Use Space (SF)	1,624	1,624	1,624	7,990	7,990	33,657
Net Lot Area	38,974	38,974	38,974	125,180	125,180	302,915
Total Gross Square Feet Including Bonus	162,392	158,332	142,093	388,856	332,925	811,139
Total Base Gross Square Feet	162,392	158,332	142,093	388,856	332,925	811,139
Bonus Density for Workforce Units	-	-	-	-	-	-
Net Base Building Square Feet	138,033	134,562	127,883	330,528	282,986	689,468
Residential Gross Leasable Area	70,643	118,342	-	275,258	282,986	552,838
Number of Residential Units	76	127	-	296	305	595
Number of Market & MPDU Units	70	117	-	273	281	548
Average Net Square Feet per Unit	930	932	-	930	928	929
MPDUs	9	15	-	35	36	71
Workforce Housing Units	6	10	-	23	24	49
Retail Gross Leasable Area (0.0-0.4 FAR)	16,240	16,240	16,239	53,270	-	134,630
Office Gross Leasable Area	51,150	-	111,644	-	-	-
Care Center Square Feet	-	-	-	2,000	-	2,000
Residential Parking Spaces (1)	72	120	-	279	288	561
Office Parking Spaces	102	-	223	-	-	-
Retail Parking Spaces (2)	57	57	57	186	-	471
Care Center Parking Spaces	-	-	-	6	-	6
Less Spaces Replaced by Shared Car Spaces	(7)	(7)	(10)	(14)	(14)	(14)
Total Parking Spaces	224	170	270	457	274	1,024
<b>Sales &amp; Operations</b>						
Market Sale Price per Square Foot	\$475	\$475	\$475	\$475	\$475	\$475
MPDU Sale Price per Unit	\$223,300	\$223,300	NA	\$223,300	\$223,300	\$223,300
Workforce Sale Price per Unit	\$298,400	\$298,400	NA	\$298,400	\$298,400	\$298,400
Cost of Sale	7.0%	7.0%	NA	7.0%	7.0%	7.0%
Condo Parking Sale Price	\$40,000	\$40,000	NA	\$40,000	\$40,000	\$40,000
<b>Net Sales Proceeds</b>	<b>\$31,758,000</b>	<b>\$53,069,600</b>	<b>NA</b>	<b>\$123,699,400</b>	<b>\$127,450,800</b>	<b>\$248,836,600</b>
						<b>\$257,670,200</b>



Table 5. Alternative Developments with CR Zoning (Continued)

	Site #1 - Nicholson Ln. at Rockville Pike			Site #2 - Nicholson Ln. at Nobel St. (NW)			Site #3 - Nicholson Ln. at Nobel St. (SE)		
	Alternative #1	Alternative #2	Alternative #3	Alternative #1	Alternative #2	Alternative #3	Alternative #1	Alternative #2	Alternative #3
Office Rent per SF (full service)	\$42	\$42	\$42	\$42	\$42	\$42	\$42	\$42	\$42
Office Operating Expenses per SF	\$9	\$9	\$9	\$9	\$9	\$9	\$9	\$9	\$9
Retail Rent per SF (triple net)	\$45	\$45	\$45	\$45	\$45	\$45	\$45	\$45	\$45
Commercial Occupancy Rate	95%	95%	95%	95%	95%	95%	95%	95%	95%
Care Center Rent (triple net)	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10
Monthly Office Parking Rate	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100
Retail Average Daily Parking Fees (3)	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00
<b>Net Commercial Operating Income</b>	<b>\$2,442,400</b>	<b>\$745,600</b>	<b>\$4,446,100</b>	<b>\$2,474,800</b>	<b>\$0</b>	<b>\$0</b>	<b>\$6,249,400</b>	<b>\$0</b>	<b>\$0</b>
<b>Costs</b>									
Site Improvement Costs	\$162,400	\$162,400	\$162,400	\$532,700	\$532,700	\$532,700	\$1,346,300	\$1,346,300	\$1,346,300
Public Use Space Costs	\$62,100	\$62,100	\$62,100	\$305,600	\$305,600	\$305,600	\$1,287,300	\$1,287,300	\$1,287,300
Building Hard Costs (4)	\$23,871,600	\$23,274,800	\$21,099,200	\$68,639,500	\$48,274,100	\$113,281,300	\$94,009,400	\$94,009,400	\$94,009,400
Amenity Costs	\$67,900	\$67,900	\$125,000	\$0	\$125,000	\$0	\$0	\$125,000	\$125,000
Parking Hard Costs	\$7,560,000	\$7,560,000	\$5,737,500	\$14,973,000	\$9,273,600	\$33,230,400	\$18,708,200	\$18,708,200	\$18,708,200
Development Approval Process (months)	12	12	12	12	12	12	12	12	12
Construction Period (months)	24	24	24	24	24	24	24	24	24
Construction Financing (fees & interest)	\$2,613,600	\$2,414,800	\$2,454,300	\$5,847,000	\$4,401,500	\$11,833,100	\$8,686,700	\$8,686,700	\$8,686,700
Other Soft Costs (excluding exactions)	\$7,931,000	\$7,781,800	\$6,796,600	\$18,612,700	\$14,627,800	\$37,286,300	\$28,869,100	\$28,869,100	\$28,869,100
Tenant Improvements	\$3,775,500	\$1,218,000	\$6,800,100	\$4,095,300	\$0	\$10,197,300	\$0	\$0	\$0
Development Return (% of Net Condo Revenues)	15%	15%	15%	15%	15%	15%	15%	15%	15%
Exactions	\$881,700	\$917,900	\$707,200	\$2,284,900	\$2,054,300	\$7,786,500	\$7,302,400	\$7,302,400	\$7,302,400
<b>Total Non-Land Development Costs</b>	<b>\$46,925,800</b>	<b>\$43,459,700</b>	<b>\$43,944,400</b>	<b>\$106,290,700</b>	<b>\$79,694,600</b>	<b>\$216,248,500</b>	<b>\$160,334,400</b>	<b>\$160,334,400</b>	<b>\$160,334,400</b>
<b>Residual Land Value Analysis</b>									
Net Operating Income	\$2,442,400	\$745,600	\$4,446,100	\$2,474,800	\$0	\$0	\$6,249,400	\$0	\$0
Sales Revenue + Commercial Capitalized Value	\$64,323,300	\$63,010,900	\$55,576,300	\$156,696,700	\$127,450,800	\$332,161,900	\$257,670,200	\$257,670,200	\$257,670,200
Less Non-Land Devel. Costs & Return	\$51,689,500	\$51,420,100	\$48,338,840	\$123,845,600	\$98,712,200	\$253,574,000	\$198,984,900	\$198,984,900	\$198,984,900
<b>Land Residual Value</b>	<b>\$12,633,800</b>	<b>\$11,590,800</b>	<b>\$7,237,460</b>	<b>\$32,851,100</b>	<b>\$28,738,600</b>	<b>\$78,587,900</b>	<b>\$58,685,300</b>	<b>\$58,685,300</b>	<b>\$58,685,300</b>
Land Value per Site SF	\$311	\$286	\$178	\$247	\$216	\$233	\$174	\$174	\$174
Land Value per FAR SF	\$78	\$73	\$51	\$84	\$86	\$97	\$87	\$87	\$87

Notes: (1) Assumes site location within 1,600 feet of a transit station. Above-ground structure. Assumes 35 percent one-bedroom units and 65 percent two-bedroom units.  
 (2) Assumes 20 percent restaurant and 80 percent general retail. Adjusted for shared use.  
 (3) Retail parking revenues calculated at \$1,000 per hour with an average stay of two hours and a daily occupancy of 1.5 per space.  
 (4) Includes incremental costs for reduced floor plate size, podium/tower setback and LEED rating as appropriate.  
 Sources: Partners for Economic Solutions, 2009.



## Incremental Impacts of Incentive Density

To illustrate the incremental impacts of using each incentive, Table 6 adds each incentive density step-wise for Site #2, Alternative #1. This allows comparison of the incremental costs and benefits associated with each incentive. (Appendix Table E-1 provides the full pro formas.) To reach a maximum density of 2.92 FAR for condominium/retail development, the developer is assumed to take advantage of five incentive density provisions:

- Transit access between ¼ and ½ mile;
- Community connectivity;
- Workforce housing;
- Care center; and
- LEED Gold.

The step-wise calculation obscures some of the benefits of the incentive density as greater density triggers higher construction costs, as discussed below.

This example illustrates the large benefit associated with the 30-percent incentive density for proximity to the Metro station – over \$8 million or \$61 per land square foot. A portion of that benefit is attributable to the higher prices and rents achievable in a multi-story building rather than the one- or two-story building likely to be developed under standard method zoning with 0.5 FAR. Those benefits are reduced by the triggering of the workforce housing requirement (due to construction of more than 35 housing units) and the need to develop parking in an above-ground structure. The community connectivity incentive, which rewards proximity to an existing retail concentration, generates an incremental residual land value of \$56 per land square foot. No new project costs were associated with that benefit, though the original land price would reflect a premium.

Table 6. Land Value Benefits Associated with CR Zoning Incentive Density, Site #2, Alternative #1 Example

Incentive	Increment by Incentive			Total		
	Percent of Increment	Incremental FAR Square Feet	Incremental Residual Land Value per Land SF	FAR	Residual Land Value	Residual Land Value per Land SF
Standard Method	0%	-	-	0.50	\$11,800,700	\$89
Transit Access Between 1/4 and 1/2 Mile (1)	30%	0.75	\$61	1.25	\$19,932,500	\$150
Community Connectivity	20%	0.50	\$56	1.75	\$27,390,700	\$206
Workforce Housing Units	20%	0.50	\$55	2.25	\$34,667,900	\$260
Care Center (2)	10%	0.25	\$7	2.50	\$35,630,900	\$268
LEED Gold (3) (4)	20%	0.42	-\$18	2.92	\$33,192,500	\$249
Total Build-Out				2.92	\$33,192,500	\$249

Notes: (1) Value impacted positively by increase in amount of retail space from 0.2 to 0.4 FAR and higher rents/prices associated with multi-story buildings and impacted negatively by the requirement for workforce housing units and the increased cost of structured parking.

(2) Value impacted negatively by increase in construction costs caused by moving from stick-built to stick-built above a steel base.

(3) Value impacted negatively by increase in construction costs caused by moving to high-rise construction and an FAR increase of 0.42 rather than the maximum 0.5 due to restricting commercial space to the first floor.

(4) Negative impact would be much smaller if the potential for higher rents resulting from the marketing advantages of a LEED Gold rating were included.

Sources: Partners for Economic Solutions, 2009.

The incentive density for workforce housing units creates an incremental land value of \$55 per land square foot. No additional costs were included because workforce housing is required in the White Flint area. The addition of a care center provides an additional 0.25 FAR, but at a relatively high price of renting space at less than market rate and building structured parking spaces with no offsetting revenue. It is also impacted by the move from 2.25 to 2.50 FAR, which requires a change in construction techniques from stick-built to a combination of stick-built construction over a base of steel. The incentive density generates an increase in residual land value equal to \$7 per land square foot. If the impact of higher construction costs were excluded, the care center incentive density would have created an additional \$21 per land square foot in residual land value.

Upgrading the building to achieve LEED Gold certification imposes a cost burden estimated at 4.0 percent of construction costs. In this example, the move from 2.5 to 2.92 FAR also imposes a high construction cost premium as high-rise construction becomes necessary. Including the impact of higher construction costs, the LEED Gold investment reduces the land value by \$2.4 million or \$18 per land square foot. Without the construction cost impact, the LEED Gold incentive density would have increased residual land value by \$5.6 million or \$42 per land square foot.



## Appendix A. Model Inputs

Table A-1. Input Assumptions for Office Construction

Developer Return	9% % of total costs
Vacancy and Collection Loss	5% % of total sales
Building Efficiency (Leaseable/Gross S.F.)	90% % of total building
<b>Development Cost Assumptions</b>	
Acquisition and Demolition	\$0 per linear foot
Hard Costs (less than five stories)	\$100 per square foot
Hard Costs (five or more stories)	\$110 per square foot
Site Improvements	\$4.5 per square foot of land
Developer Fee	5% % of non-land costs
Soft Costs as Share of Hard Costs	25% % of hard costs
Tenant Improvements	\$50 per square foot
<b>Parking Requirements and Fees</b>	
Parking Spaces (ratio per unit)	2.4 per 1,000 s.f.
Monthly Parking Fees	\$150 per space
Daily Parking Fees	\$15 per space
Percent of Spaces Rented (not included)	90% per month
Daily Parking Turnover (not included)	1.2 turns per week day
<b>Construction Financing Costs</b>	
Interest Rate	7.02% of total loan
Period of Initial Loan	24 months
Initial Construction Loan Fee (points)	1.50% of total loan
Average Balance	55% of total loan
Loan To Cost Ratio	70% of non-land costs
Interest Cost and Points	6.00% of total costs
<b>Return on Investment</b>	
Required Return on Investment	10.0% of non-land costs
Capitalization Rate	8.0%
<b>Permanent Financing</b>	
Interest Rate	5.77% of total loan
Term	30 years
Mortgage Constant	7.049%
Debt Coverage Ratio	115% of debt service
Note: Data in constant 2009 dollars.	
Source: A. Morton Thomas & Associates; The Edgecombe Group; Partners for Economic Solutions, 2009.	



**Table A-1. Input Assumptions for Office Construction**

Developer Return	9%	% of total costs
Vacancy and Collection Loss	5%	% of total sales
Building Efficiency (Leaseable/Gross S.F.)	90%	% of total building
<b>Development Cost Assumptions</b>		
Acquisition and Demolition	\$0	per linear foot
Hard Costs (less than five stories)	\$100	per square foot
Hard Costs (five or more stories)	\$110	per square foot
Site Improvements	\$4.5	per square foot of land
Developer Fee	5%	% of non-land costs
Soft Costs as Share of Hard Costs	25%	% of hard costs
Tenant Improvements	\$50	per square foot
<b>Parking Requirements and Fees</b>		
Parking Spaces (ratio per unit)	2.4	per 1,000 s.f.
Monthly Parking Fees	\$150	per space
Daily Parking Fees	\$15	per space
Percent of Spaces Rented (not included)	90%	per month
Daily Parking Turnover (not included)	1.2	turns per week day
<b>Construction Financing Costs</b>		
Interest Rate	7.02%	of total loan
Period of Initial Loan	24	months
Initial Construction Loan Fee (points)	1.50%	of total loan
Average Balance	55%	of total loan
Loan To Cost Ratio	70%	of non-land costs
Interest Cost and Points	6.00%	of total costs
<b>Return on Investment</b>		
Required Return on Investment	10.0%	of non-land costs
Capitalization Rate	8.0%	
<b>Permanent Financing</b>		
Interest Rate	5.77%	of total loan
Term	30	years
Mortgage Constant	7.049%	
Debt Coverage Ratio	115%	of debt service

Note: Data in constant 2009 dollars.

Source: A. Morton Thomas & Associates; The Edgecombe Group; Partners for Economic Solutions, 2009.

**Table A-2. Input Assumptions for Retail Construction**

Developer Return	9%	% of total costs
Vacancy and Collection Loss	5%	% of total sales
Building Efficiency (Leaseable/Gross S.F.)	90%	% of total building
<b>Development Cost Assumptions</b>		
Acquisition and Demolition	\$0	per linear foot
Hard Costs (less than five stories)	\$100	per square foot
Hard Costs (five or more stories)	n/a	per square foot
Site Improvements	\$4	per square foot of land
Developer Fee	5%	% of non-land costs
Soft Costs as Share of Hard Costs	25%	% of hard costs
Tenant Improvements	\$75	per square foot
<b>Parking Requirements and Fees</b>		
Parking Spaces (ratio per unit)	1.4	per unit
Monthly Parking Fees	\$150	per space
Daily Parking Fees	\$15	per space
Percent of Spaces Rented	90%	per month
Daily Parking Turnover	1.2	turns per week day
<b>Construction Financing Costs</b>		
Interest Rate	7.02%	of total loan
Period of Initial Loan	24	months
Initial Construction Loan Fee (points)	1.50%	of total loan
Average Balance	55%	of total loan
Loan To Cost Ratio	70%	of non-land costs
Interest Cost and Points	6.00%	of total costs
<b>Return on Investment</b>		
Required Return on Investment	10.0%	of non-land costs
Capitalization Rate	7.50%	
<b>Permanent Financing</b>		
Interest Rate	5.77%	of total loan
Term	30	years
Mortgage Constant	7.049%	
Debt Coverage Ratio	115%	of debt service

Note: Data in constant 2009 dollars.

Source: A. Morton Thomas & Associates; The Edgecombe Group; Partners for Economic Solutions, 2009.



**Table A-3. Input Assumptions for Residential Apartment Construction**

Developer Return	9%	% of total costs
Vacancy and Collection Loss	5%	% of total sales
Building Efficiency (Leaseable/Gross S.F.)	85%	% of total building
<b>Development Cost Assumptions</b>		
Acquisition and Demolition	\$0	per linear foot
Hard Costs (less than five stories)	\$115	per square foot
Hard Costs (five or more stories)	\$130	per square foot
Site Improvements	\$4	per square foot of land
Developer Fee	5%	% of non-land costs
Soft Costs as Share of Hard Costs	25%	% of hard costs
Cost of Sales	5%	% of sales price
Developer Fee for Condominium Sales	15%	% of sales price
<b>Parking Requirements and Fees</b>		
Parking Spaces (ratios per unit)	1.0	per s.f.
Monthly Parking Fees	\$150	per space
Sales Price per parking space	NA	per space
Percent of Spaces Rented	90%	per month
Daily Parking Turnover	1.2	turns per week day
<b>Construction Financing Costs</b>		
Interest Rate	7.02%	of total loan
Period of Initial Loan	24	months
Initial Construction Loan Fee (points)	1.50%	of total loan
Average Balance	55%	of total loan
Loan To Cost Ratio	70%	of non-land costs
Interest Cost and Points	6.00%	of total costs
<b>Return on Investment</b>		
Required Return on Investment	9.0%	of non-land costs
Capitalization Rate	7.00%	
<b>Permanent Financing</b>		
Interest Rate	5.77%	of total loan
Term	30	years
Mortgage Constant	7.049%	
Debt Coverage Ratio	115%	of debt service
Note: Data in constant 2009 dollars.		
Source: A. Morton Thomas & Associates; The Edgecombe Group; Partners for Economic Solutions, 2009.		



**Table A-4. Input Assumptions for Residential Condominium Construction**

Developer Return	15%	% of net sales revenues
Vacancy and Collection Loss	5%	% of total sales
Building Efficiency (Leaseable/Gross S.F.)	85%	% of total building
<b>Development Cost Assumptions</b>		
Acquisition and Demolition	\$0	per linear foot
Hard Costs (less than five stories)	\$130	per square foot
Hard Costs (five or more stories)	\$145	per square foot
Site Improvements	\$4	per square foot of land
Developer Fee	NA	% of non-land costs
Soft Costs as Share of Hard Costs	25%	% of hard costs
Cost of Sales	7%	% of sales price
<b>Parking Requirements and Fees</b>		
Parking Spaces (ratios per unit)	1.0	per s.f.
Monthly Parking Fees	\$150	per space
Sales Price per parking space	\$40,000	per space
Percent of Spaces Rented	90%	per month
Daily Parking Turnover	1.2	turns per week day
<b>Construction Financing Costs</b>		
Interest Rate	7.02%	of total loan
Period of Initial Loan	24	months
Initial Construction Loan Fee (points)	1.50%	of total loan
Average Balance	55%	of total loan
Loan To Cost Ratio	70%	of non-land costs
Interest Cost and Points	6.00%	of total costs
<b>Return on Investment</b>		
Developer Fee for Condominium Sales	15%	% of net sales revenues
Capitalization Rate	7.00%	

Note: Data in constant 2009 dollars.

Source: A. Morton Thomas & Associates; The Edgecombe Group; Partners for Economic Solutions, 2009.

**Appendix B. Existing Zoning Pro Formas by Use**

Table B-1. Office/Retail Development Pro Formas

	CBD 2		TMX - 2		TMX - 2		C2 Standard		C2 Standard		C2 Standard	
	Standard	Optional	Standard	Optional	Standard	Optional	Commercial	Mixed Use	Commercial	Mixed Use	TOMU	TOMU
<b>Development Characteristics</b>												
Floor Area Ratio	0.5	4.0	0.5	2.0	1.5	NA	NA	NA	NA	NA	NA	NA
Site Size (SF)	108,900	108,900	108,900	108,900	108,900	NA	NA	NA	NA	NA	NA	NA
Public Use Space (SF)	10,890	21,780	10,890	21,780	10,890	NA	NA	NA	NA	NA	NA	NA
Net Lot Area	98,010	87,120	98,010	87,120	98,010	NA	NA	NA	NA	NA	NA	NA
Total Gross Square Feet	54,450	435,600	54,450	217,800	163,350	NA	NA	NA	NA	NA	NA	NA
Net Building Square Feet	49,005	392,040	49,005	196,020	147,015	NA	NA	NA	NA	NA	NA	NA
Office Gross Leaseable Area	27,225	348,480	27,225	152,460	103,455	NA	NA	NA	NA	NA	NA	NA
Retail Gross Leaseable Area (0.2-0.4 FAR)	21,780	43,560	21,780	43,560	43,560	NA	NA	NA	NA	NA	NA	NA
Office Parking Spaces (1)	78	941	78	418	287	NA	NA	NA	NA	NA	NA	NA
Retail Parking Spaces (2)	196	213	196	213	213	NA	NA	NA	NA	NA	NA	NA
<b>Operations</b>												
Office Rent per SF (full service)	\$38	\$42	\$38	\$42	\$42	NA	NA	NA	NA	NA	NA	NA
Retail Rent per SF (triple net)	\$45	\$45	\$45	\$45	\$45	NA	NA	NA	NA	NA	NA	NA
Occupancy Rate	95%	95%	95%	95%	95%	NA	NA	NA	NA	NA	NA	NA
Office Operating Expense per SF	\$9	\$9	\$9	\$9	\$9	NA	NA	NA	NA	NA	NA	NA
Office Monthly Parking Rate	\$50	\$100	\$50	\$100	\$100	NA	NA	NA	NA	NA	NA	NA
Retail Average Daily Parking Fees (3)	\$0.00	\$3.00	\$0.00	\$3.00	\$3.00	NA	NA	NA	NA	NA	NA	NA
<b>Net Operating Income</b>	<b>\$1,713,000</b>	<b>\$13,925,000</b>	<b>\$1,713,000</b>	<b>\$7,271,000</b>	<b>\$5,608,000</b>	NA	NA	NA	NA	NA	NA	NA





Table B-1. Office/Retail Development Pro Forms (Continued)

	CBD 2 Standard	CBD 2 Optional	TMX - 2 Standard	TMX - 2 Optional	C2 Standard Commercial	C2 Standard Mixed Use	C2 Standard TOMU
<b>Costs</b>							
Site Improvement Costs	\$490,100	\$490,100	\$490,100	\$490,100	\$490,100	NA	NA
Public Use Space Costs	\$416,500	\$833,000	\$416,500	\$833,000	\$416,500	NA	NA
Building Hard Costs	\$5,445,000	\$47,916,000	\$5,445,000	\$21,780,000	\$16,335,000	NA	NA
Parking Hard Costs	\$739,800	\$38,947,500	\$739,800	\$18,551,400	\$14,700,000	NA	NA
Development Approval Process (months)	6	12	6	12	6	NA	NA
Construction Period (months)	18	24	18	24	24	NA	NA
Construction Financing (fees & interest)	\$570,100	\$8,292,600	\$570,100	\$3,987,700	\$2,978,600	NA	NA
Other Soft Costs (excluding exactions)	\$1,772,900	\$22,046,700	\$1,772,900	\$10,413,600	\$7,985,400	NA	NA
Tenant Improvements	\$2,994,800	\$20,691,000	\$2,994,800	\$10,890,000	\$8,439,800	NA	NA
Building Lot Terminations	\$0	\$0	\$0	\$544,500	\$0	NA	NA
Exactions	\$433,300	\$2,309,600	\$433,300	\$1,231,500	\$961,900	NA	NA
<b>Total Non-Land Development Costs</b>	<b>\$12,862,500</b>	<b>\$141,526,500</b>	<b>\$12,862,500</b>	<b>\$68,721,800</b>	<b>\$52,307,300</b>	NA	NA
<b>Residual Land Value Analysis</b>							
Net Operating Income	\$1,713,000	\$13,925,000	\$1,713,000	\$7,271,000	\$5,608,000	NA	NA
Capitalized Value	\$21,412,500	\$174,062,500	\$21,412,500	\$90,887,500	\$70,100,000	NA	NA
Less Non-Land Development Costs	\$12,862,500	\$141,526,500	\$12,862,500	\$68,721,800	\$52,307,300	NA	NA
Less Return on Investment (10%)	\$1,286,300	\$14,152,700	\$1,286,300	\$6,872,200	\$5,230,700	NA	NA
<b>Land Residual Value</b>	<b>\$7,263,700</b>	<b>\$18,383,300</b>	<b>\$7,263,700</b>	<b>\$15,293,500</b>	<b>\$12,562,000</b>	NA	NA
Land Residual per Site SF	\$67	\$169	\$67	\$140	\$115	NA	NA
Land Residual per FAR SF	\$133	\$42	\$133	\$70	\$77	NA	NA

Notes: (1) Assumes site location within 1,600 feet of a transit station. Surface parking up to 0.5 FAR; tuck-under parking 0.5 to 1.0 FAR; above-ground structure 1.0 FAR and above.  
 (2) General retail at 5.0 spaces per 1,000 square feet and restaurants at 25.0 spaces per 1,000 square feet. Assumes 20 percent restaurant and 80 percent general retail. Adjusted for shared use.  
 (3) Retail parking revenues calculated at \$1.00 per hour with an average stay of two hours and a daily occupancy of 1.5 per space for developments with structured parking.  
 Source: Partners for Economic Solutions, 2009.

Table B-2. Residential Apartments/Retail Development Pro Formas

	CBD 2 Standard	CBD 2 Optional	TMX - 2 Standard	TMX - 2 Optional	TMX - 2 Optional	TMX - 2 Optional	C2 Standard Commercial	C2 Standard Mixed Use	C2 Standard TOMU
<b>Development Characteristics</b>									
Floor Area Ratio	0.5	4.0	0.5	1.0	1.5	2.0	NA	2.5	2.0
Site Size (SF)	108,900	108,900	108,900	108,900	108,900	108,900	NA	108,900	108,900
Public Use Space (SF)	10,890	21,780	10,890	21,780	21,780	21,780	NA	10,890	10,890
Net Lot Area	98,010	87,120	98,010	87,120	87,120	87,120	NA	98,010	98,010
Total Gross Square Feet Including Bonus	54,450	473,100	54,450	113,900	173,350	232,800	NA	292,250	232,800
Total Base Gross Square Feet	54,450	435,600	54,450	108,900	163,350	217,800	NA	272,250	217,800
Bonus Density for Workforce Units	-	37,500	-	5,000	10,000	15,000	NA	20,000	15,000
Net Base Building Square Feet	46,283	370,260	46,283	92,565	138,848	185,130	NA	231,413	185,130
Residential Gross Leasable Area	24,503	326,700	24,503	49,005	95,288	141,570	NA	187,853	141,570
Number of Residential Units	25	365	25	54	106	157	NA	209	157
Number of Market & MPDU Units	25	335	25	50	98	145	NA	193	145
Average Net Square Feet per Unit	980	895	980	908	899	902	NA	899	902
MPDUs	4	42	4	7	13	19	NA	25	19
Workforce Housing Units	-	30	-	4	8	12	NA	16	12
Retail Gross Leasable Area (0.2-0.4 FAR)	21,780	43,560	21,780	43,560	43,560	43,560	NA	43,560	43,560
Residential Parking Spaces (1)	30	412	23	49	96	142	NA	237	178
Retail Parking Spaces (2)	196	392	196	392	392	392	NA	392	392
<b>Operations</b>									
Market Apartment Monthly Rent per Unit	\$2,196	\$2,196	\$2,196	\$2,196	\$2,196	\$2,196	NA	\$2,196	\$2,196
MPDU Monthly Rent per Unit	\$1,177	\$1,396	\$1,177	\$1,177	\$1,177	\$1,177	NA	\$1,177	\$1,177
Workforce Housing Rent per Unit	\$1,659	\$1,659	\$1,659	\$1,659	\$1,659	\$1,659	NA	\$1,659	\$1,659
Retail Rent per SF (triple net)	\$45	\$45	\$45	\$45	\$45	\$45	NA	\$45	\$45
Occupancy Rate	95%	95%	95%	95%	95%	95%	NA	95%	95%
Apartment Operating Expense per Unit	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	NA	\$5,000	\$5,000
Apartment Monthly Parking Rate	\$0.00	\$100	\$50	\$100	\$100	\$100	NA	\$100	\$100
Retail Average Daily Parking Fees (3)	\$0.00	\$3.00	\$0.00	\$3.00	\$3.00	\$3.00	NA	\$3.00	\$3.00
<b>Net Operating Income</b>	<b>\$1,402,600</b>	<b>\$9,465,500</b>	<b>\$1,396,600</b>	<b>\$3,301,900</b>	<b>\$4,303,100</b>	<b>\$5,283,100</b>	<b>NA</b>	<b>\$6,339,000</b>	<b>\$5,324,100</b>



Table B-2. Residential Apartments/Retail Development Pro Formas (Continued)

Costs	CBD 2		TMX - 2		TMX - 2		TMX - 2		C2 Standard		C2 Standard	
	Standard	Optional	Standard	Optional	Optional	Optional	Optional	Optional	Commercial	Mixed Use	Commercial	TOMU
Site Improvement Costs	\$435,600	\$435,600	\$435,600	\$435,600	\$435,600	\$435,600	\$435,600	\$435,600	NA	\$435,600	NA	\$435,600
Public Use Space Costs	\$416,500	\$833,000	\$416,500	\$833,000	\$833,000	\$833,000	\$833,000	\$833,000	NA	\$416,500	NA	\$416,500
Building Hard Costs	\$6,261,750	\$61,503,000	\$6,261,750	\$13,098,500	\$19,935,250	\$26,772,000	\$26,772,000	\$26,772,000	NA	\$33,608,750	NA	\$26,772,000
Parking Hard Costs	\$610,200	\$27,135,000	\$591,200	\$8,820,000	\$14,347,200	\$15,089,600	\$15,089,600	\$15,089,600	NA	\$18,482,600	NA	\$11,400,000
Development Approval Process (months)	6	12	6	12	12	12	12	12	NA	6	NA	6
Construction Period (months)	18	24	18	24	24	24	24	24	NA	24	NA	24
Construction Financing (fees & interest)	\$524,800	\$6,959,800	\$523,700	\$1,940,900	\$2,870,900	\$3,487,000	\$3,487,000	\$3,487,000	NA	\$4,167,800	NA	\$3,123,100
Other Soft Costs (excluding exactions)	\$1,831,000	\$22,476,700	\$1,926,300	\$5,796,800	\$8,987,800	\$10,983,100	\$10,983,100	\$10,983,100	NA	\$13,238,400	NA	\$9,756,000
Tenant Improvements	\$1,633,500	\$3,267,000	\$1,633,500	\$3,267,000	\$3,267,000	\$3,267,000	\$3,267,000	\$3,267,000	NA	\$3,267,000	NA	\$3,267,000
Building Lot Terminations	\$0	\$0	\$0	\$165,500	\$321,500	\$475,100	\$475,100	\$475,100	NA	NA	NA	\$0
Off-Site Parkland, Right-of-Way Dedication	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	\$1,361,300
Exactions	\$576,400	\$2,324,400	\$576,400	\$992,200	\$1,565,000	\$2,124,100	\$2,124,100	\$2,124,100	NA	\$2,696,800	NA	\$2,124,100
<b>Total Non-Land Development Costs</b>	<b>\$12,389,800</b>	<b>\$124,884,500</b>	<b>\$12,365,100</b>	<b>\$35,349,600</b>	<b>\$52,463,300</b>	<b>\$64,028,500</b>	<b>\$64,028,500</b>	<b>\$64,028,500</b>	<b>NA</b>	<b>\$76,323,500</b>	<b>NA</b>	<b>\$58,655,600</b>
<b>Residual Land Value Analysis</b>												
Net Operating Income	\$1,402,600	\$9,485,500	\$1,398,600	\$3,301,900	\$4,303,100	\$5,283,100	\$5,283,100	\$5,283,100	NA	\$6,339,000	NA	\$5,324,100
Capitalized Value	\$20,037,100	\$135,507,100	\$19,980,000	\$47,170,000	\$61,472,900	\$75,472,900	\$75,472,900	\$75,472,900	NA	\$90,657,100	NA	\$76,065,600
Less Non-Land Development Costs	\$12,389,800	\$124,894,500	\$12,365,100	\$35,349,500	\$52,463,300	\$64,028,500	\$64,028,500	\$64,028,500	NA	\$76,323,500	NA	\$58,655,600
Less Required Return (9%)	\$1,115,100	\$11,244,100	\$1,112,900	\$3,181,500	\$4,721,700	\$5,762,600	\$5,762,600	\$5,762,600	NA	\$6,869,100	NA	\$5,279,000
<b>Land Residual Value</b>	<b>\$6,532,200</b>	<b>-\$671,500</b>	<b>\$6,060,000</b>	<b>\$8,639,000</b>	<b>\$11,928,500</b>	<b>\$14,947,700</b>	<b>\$14,947,700</b>	<b>\$14,947,700</b>	<b>NA</b>	<b>\$17,364,500</b>	<b>NA</b>	<b>\$12,124,000</b>
Land Residual per Site SF	\$60	-\$6	\$60	\$79	\$89	\$82	\$82	\$82	NA	\$68	NA	\$111
Land Residual per FAR SF	\$120	-\$1	\$119	\$76	\$25	\$24	\$24	\$24	NA	\$25	NA	\$52

Notes: (1) Assumes site location within 1,600 feet of a transit station. Surface parking up to 0.5 FAR; truck-under parking 0.5 to 1.0 FAR; above ground structure 1.0 FAR and above. Assumes 35 percent one-bedroom units and 65 percent two-bedroom units.

(2) General retail at 5.0 spaces per 1,000 square feet and restaurants at 25.0 spaces per 1,000 square feet. Assumes 20 percent restaurant and 80 percent general retail. Adjusted for shared use.

(3) Retail parking revenues calculated at \$1.00 per hour with an average stay of two hours and a daily occupancy of 1.5 per space for developments with structured parking.

Source: Partners for Economic Solutions, 2009.



Table B-3. Residential Condominiums/Retail Development Pro Forms

	CBD 2		TMX - 2		TMX - 2		C2 Standard		C2 Standard	
	Standard	Optional	Standard	Optional	Standard	Optional	Commercial	Mixed Use	Commercial	TOMU
<b>Development Characteristics</b>										
Floor Area Ratio	0.5	4.0	0.5	2.0	NA	NA	NA	1.5	NA	2.0
Site Size (SF)	108,900	108,900	108,900	108,900	NA	NA	NA	108,900	NA	108,900
Public Use Space (SF)	10,890	21,780	10,890	21,780	NA	NA	NA	10,890	NA	10,890
Net Lot Area	98,010	87,120	98,010	87,120	NA	NA	NA	98,010	NA	98,010
Total Gross Square Feet Including Bonus	54,450	474,400	54,450	234,100	NA	NA	NA	174,650	NA	234,100
Total Base Gross Square Feet	54,450	435,600	54,450	217,800	NA	NA	NA	163,350	NA	217,800
Bonus Density for Workforce Units	-	38,800	-	16,300	NA	NA	NA	11,300	NA	16,300
Net Base Building Square Feet	46,283	370,260	46,283	185,130	NA	NA	NA	138,848	NA	185,130
Residential Gross Leaseable Area	24,503	326,700	24,503	141,570	NA	NA	NA	95,288	NA	141,570
Number of Residential Units	26	383	26	165	NA	NA	NA	112	NA	165
Number of Market & MPDU Units	26	352	26	152	NA	NA	NA	103	NA	152
Average Net Square Feet per Unit	942	928	942	931	NA	NA	NA	925	NA	931
MPDUs	4	44	4	19	NA	NA	NA	13	NA	19
Workforce Housing Units	-	31	-	13	NA	NA	NA	9	NA	13
Retail Gross Leaseable Area (0.2-0.4 FAR)	21,780	43,560	21,780	43,560	NA	NA	NA	43,560	NA	43,560
Residential Parking Spaces (1)	31	433	24	149	NA	NA	NA	127	NA	187
Retail Parking Spaces (2)	196	392	196	392	NA	NA	NA	392	NA	392
<b>Sales &amp; Operations</b>										
Market Sale Price per Square Foot	\$450	\$475	\$450	\$475	NA	NA	NA	\$475	NA	\$475
MPDU Sale Price per Unit	\$203,300	\$203,300	\$203,300	\$203,300	NA	NA	NA	\$203,300	NA	\$203,300
Workforce Sale Price per Unit	\$298,400	\$298,400	\$298,400	\$298,400	NA	NA	NA	\$298,400	NA	\$298,400
Cost of Sale	7.0%	7.0%	7.0%	7.0%	NA	NA	NA	7.0%	NA	7.0%
Condo Parking Sale Price	\$0	\$40,000	\$0	\$40,000	NA	NA	NA	\$40,000	NA	\$40,000
<b>Net Sales Proceeds</b>	<b>\$9,484,500</b>	<b>\$162,013,400</b>	<b>\$9,484,500</b>	<b>\$68,440,400</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>\$47,370,000</b>	<b>NA</b>	<b>\$69,854,000</b>
Retail Rent per SF (triple net)	\$45	\$45	\$45	\$45	NA	NA	NA	\$45	NA	\$45
Retail Occupancy Rate	95%	95%	95%	95%	NA	NA	NA	95%	NA	95%
Retail Average Daily Parking Fees (3)	\$0.00	\$3.00	\$0.00	\$3.00	NA	NA	NA	\$3.00	NA	\$3.00
<b>Net Retail Operating Income</b>	<b>\$931,100</b>	<b>\$2,270,000</b>	<b>\$931,100</b>	<b>\$2,270,000</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>\$2,270,000</b>	<b>NA</b>	<b>\$2,270,000</b>

Table B-3. Residential Condominiums/Retail Development Pro Formas (Continued)

Costs	CBD 2		TMX - 2		TMX - 2		C2 Standard		C2 Standard	
	Standard	Optional	Standard	Optional	Standard	Optional	Commercial	Mixed Use	Standard	TOMU
Site Improvement Costs	\$435,600	\$435,600	\$435,600	\$435,600	NA	\$435,600	NA	\$435,600	NA	\$435,600
Public Use Space Costs	\$416,500	\$833,000	\$416,500	\$833,000	NA	\$833,000	NA	\$416,500	NA	\$416,500
Building Hard Costs	\$7,078,500	\$68,788,000	\$7,078,500	\$30,433,000	NA	\$22,704,500	NA	\$22,704,500	NA	\$30,433,000
Parking Hard Costs	\$612,900	\$27,543,750	\$594,000	\$15,905,400	NA	\$15,258,600	NA	\$15,258,600	NA	\$11,580,000
Development Approval Process (months)	6	12	6	12	NA	12	NA	6	NA	6
Construction Period (months)	18	24	18	24	NA	24	NA	24	NA	24
Construction Financing (fees & interest)	\$572,400	\$7,561,200	\$571,300	\$3,777,800	NA	\$3,107,400	NA	\$3,107,400	NA	\$3,411,200
Other Soft Costs (excluding exactions)	\$2,135,900	\$24,475,100	\$2,131,200	\$11,901,800	NA	\$9,703,800	NA	\$9,703,800	NA	\$10,716,300
Tenant Improvements	\$1,633,500	\$3,267,000	\$1,633,500	\$3,267,000	NA	\$3,267,000	NA	\$3,267,000	NA	\$3,267,000
Development Return (% of Net Revenues)	15%	15%	15%	15%	NA	15%	NA	15%	NA	15%
Building Lot Terminations	\$0	\$0	\$0	\$0	NA	\$475,100	NA	\$0	NA	\$0
Off-Site Parkland, Right-of-Way Dedication	NA	NA	NA	NA	NA	NA	NA	NA	NA	\$2,926,300
Exactions	\$590,100	\$2,720,400	\$590,100	\$2,219,500	NA	\$1,633,100	NA	\$1,633,100	NA	\$2,219,500
<b>Total Non-Land Development Costs</b>	<b>\$13,475,400</b>	<b>\$135,924,100</b>	<b>\$13,450,700</b>	<b>\$69,248,200</b>	<b>NA</b>	<b>\$66,526,500</b>	<b>NA</b>	<b>\$66,526,500</b>	<b>NA</b>	<b>\$65,405,400</b>
<b>Residual Land Value Analysis</b>										
Net Operating Income	\$931,100	\$2,270,000	\$931,100	\$2,270,000	NA	\$2,270,000	NA	\$2,270,000	NA	\$2,270,000
Sales Revenue + Retail Capitalized Value	\$21,899,200	\$192,280,100	\$21,899,200	\$96,707,100	NA	\$77,636,700	NA	\$77,636,700	NA	\$100,120,700
Less Non-Land Devel. Costs & Return	\$14,898,100	\$160,226,100	\$14,873,400	\$79,514,300	NA	\$63,632,000	NA	\$63,632,000	NA	\$75,883,500
<b>Land Residual Value</b>	<b>\$7,001,100</b>	<b>\$32,054,000</b>	<b>\$7,025,800</b>	<b>\$19,192,800</b>	<b>NA</b>	<b>\$14,004,700</b>	<b>NA</b>	<b>\$14,004,700</b>	<b>NA</b>	<b>\$24,237,200</b>
Land Residual per Site SF	\$64	\$294	\$65	\$176	NA	\$129	NA	\$129	NA	\$223
Land Residual per FAR SF	\$129	\$68	\$129	\$82	NA	\$80	NA	\$80	NA	\$104

Notes: (1) Assumes site location within 1,600 feet of a transit station. Surface parking up to 0.5 FAR; tuck-under parking 0.5 to 1.0 FAR; above-ground structure 1.0 FAR and above. Assumes 85 percent one-bedroom units and 65 percent two-bedroom units.  
 (2) General retail at 5.0 spaces per 1,000 square feet and restaurants at 25.0 spaces per 1,000 square feet. Assumes 20 percent restaurant and 80 percent general retail. Adjusted for shared use.  
 (3) Retail parking revenues calculated at \$1.00 per hour with an average stay of two hours and a daily occupancy of 1.5 per space for developments with structured parking.  
 Source: Partners for Economic Solutions, 2009.



Table B-4. Retail Development Pro Formas

	CBD 2 Standard	CBD 2 Optional	TMX - 2 Standard	TMX - 2 Optional	C2 Standard Commercial	C2 Standard Mixed Use	C2 Standard TOMU
<b>Development Characteristics</b>							
Floor Area Ratio	0.35	NA	0.35	NA	0.35	NA	NA
Site Size (SF)	108,900	NA	108,900	NA	108,900	NA	NA
Public Use Space (SF)	10,890	NA	10,890	NA	10,890	NA	NA
Net Lot Area	98,010	NA	98,010	NA	98,010	NA	NA
Total Gross Square Feet	38,115	NA	38,115	NA	38,115	NA	NA
Net Building Square Feet	34,304	NA	34,304	NA	34,304	NA	NA
Retail Gross Leaseable Area (0.2-0.4 FAR)	34,304	NA	34,304	NA	34,304	NA	NA
Retail Parking Spaces (2)	343	NA	343	NA	343	NA	NA
<b>Operations</b>							
Retail Rent per SF (triple net)	\$45	NA	\$45	NA	\$45	NA	NA
Occupancy Rate	95%	NA	95%	NA	95%	NA	NA
<b>Net Operating Income</b>	<b>\$1,466,000</b>	NA	<b>\$1,466,000</b>	NA	<b>\$1,466,000</b>	NA	NA
<b>Costs</b>							
Site Improvement Costs	\$490,100	NA	\$490,100	NA	\$490,100	NA	NA
Public Use Space Costs	\$416,500	NA	\$416,500	NA	\$416,500	NA	NA
Building Hard Costs	\$3,811,500	NA	\$3,811,500	NA	\$3,811,500	NA	NA
Parking Hard Costs	\$926,100	NA	\$926,100	NA	\$926,100	NA	NA
Development Approval Process (months)	6	NA	6	NA	6	NA	NA
Construction Period (months)	18	NA	18	NA	18	NA	NA
Construction Financing (fees & interest)	\$462,800	NA	\$462,800	NA	\$462,800	NA	NA
Other Soft Costs (excluding exactions)	\$1,411,100	NA	\$1,411,100	NA	\$1,411,100	NA	NA
Tenant Improvements	\$2,572,800	NA	\$2,572,800	NA	\$2,572,800	NA	NA
Exactions	\$346,500	NA	\$346,500	NA	\$346,500	NA	NA
<b>Total Non-Land Development Costs</b>	<b>\$10,437,400</b>	NA	<b>\$10,437,400</b>	NA	<b>\$10,437,400</b>	NA	NA
<b>Residual Land Value Analysis</b>							
Net Operating Income	\$1,466,000	NA	\$1,466,000	NA	\$1,466,000	NA	NA
Capitalized Value	\$19,546,700	NA	\$19,546,700	NA	\$19,546,700	NA	NA
Less Non-Land Development Costs	\$10,437,400	NA	\$10,437,400	NA	\$10,437,400	NA	NA
Less Required Return (10%)	\$1,043,700	NA	\$1,043,700	NA	\$1,043,700	NA	NA
<b>Land Residual Value</b>	<b>\$8,065,600</b>	NA	<b>\$8,065,600</b>	NA	<b>\$8,065,600</b>	NA	NA
Land Residual per Site SF	\$74	NA	\$74	NA	\$74	NA	NA
Land Residual per FAR SF	\$212	NA	\$212	NA	\$212	NA	NA

Notes: (1) Assumes site location within 1,600 feet of a transit station. Surface parking up to 0.5 FAR; tuck-under parking 0.5 to 1.0 FAR; above-ground structure 1.0 FAR and above.

(2) General retail at 5.0 spaces per 1,000 square feet and restaurants at 25.0 spaces per 1,000 square feet. Assumes 20 percent restaurant and 80 percent general retail. Adjusted for shared use.

(3) Retail parking assumed to be free surface parking.

Source: Partners for Economic Solutions, 2009.





## Appendix C. Pro Forma Models by Existing Zoning Category

## CBD-2 Zoning

CBD-2 zoning is generally intended for the business districts of Friendship Heights, Bethesda, Silver Spring and Wheaton to provide density and intensity and to provide an incentive for development to meet the housing needs of local employees and those commuting on transit. The standard method allows development up to 2.0 FAR with a maximum height of 60 feet and 10 percent of the site for public use space. Optional method development, available to sites of at least 18,000 square feet, increases the maximum FAR to 4.0 with a maximum height of 143 feet. The optional method requires 20 percent of the site be devoted to public use space. Lot coverage is limited to not more than 75 percent except for residential development under the optional method, which can cover 80 percent of the site. Parking requirements reflect the standards of Article 59-E with reductions for shared parking and an adjustment for proximity to a Metro station.

When residential units are developed, MPDUs must be provided in accordance with Chapter 25A at a minimum of 12.5 percent of the base units allowed by zoning. Workforce housing units are required at a level of at least 10 percent of market-rate units. Development with workforce housing qualifies for a corresponding increase in density and height to accommodate the incremental development. However, this additional density and height has proven difficult for some projects to secure due to opposition from residents, and some developers have chosen not to pursue the additional square footage rather than subject their projects to additional delays in the development approval process.

Table C-1 shows the development pro formas for different land use mixes under CBD 2 zoning. Looking to the bottom line, development of single-story retail space with surface parking yields the highest land value per FAR square foot, but condominium/retail development with an FAR of 4.0 under the optional method yields an overall land value that is four times that of retail-only development. High-density office development also supports significantly higher land values than retail-only development. Apartment economics do not currently support high-density development due to the high cost of high-rise construction and structured parking.



Table C-1. Development Pro Formas Under CBD 2 Zoning

	Office/Retail		Apartments/Retail		Condominiums/Retail		Retail Standard
	Standard	Optional	Standard	Optional	Standard	Optional	
<b>Development Characteristics</b>							
Floor Area Ratio	0.5	4.0	0.5	4.0	0.5	4.0	0.35
Site Size (SF)	108,900	108,900	108,900	108,900	108,900	108,900	108,900
Public Use Space (SF)	10,890	21,780	10,890	21,780	10,890	21,780	10,890
Net Lot Area	98,010	87,120	98,010	87,120	98,010	87,120	98,010
Total Gross Square Feet Including Bonus	54,450	435,600	54,450	473,100	54,450	474,400	38,115
Total Base Gross Square Feet	NA	NA	54,450	435,600	54,450	435,600	34,304
Bonus Density for Workforce Units	NA	NA	-	37,500	-	38,800	NA
Net Base Building Square Feet	49,005	392,040	46,283	370,260	46,283	370,260	NA
Residential Gross Leaseable Area	NA	NA	24,503	326,700	24,503	326,700	NA
Number of Residential Units	NA	NA	25	365	26	383	NA
Number of Market & MPDU Units	NA	NA	25	335	26	352	NA
Average Net Square Feet per Unit	NA	NA	980	895	942	928	NA
MPDUs	NA	NA	4	42	4	44	NA
Workforce Housing Units	NA	NA	-	30	-	31	NA
Office Gross Leaseable Area	27,225	348,480	NA	NA	NA	NA	NA
Retail Gross Leaseable Area (0.2-0.4 FAR)	21,780	43,560	21,780	43,560	21,780	43,560	34,304
Office Parking Spaces	78	941	NA	NA	NA	NA	NA
Residential Parking Spaces (1)	NA	NA	30	412	31	433	NA
Retail Parking Spaces (2)	196	213	196	392	196	392	343
<b>Operations</b>							
Market Apartment Monthly Rent per Unit	NA	NA	\$2,196	\$2,196	NA	NA	NA
Market Sale Price per Square Foot	NA	NA	NA	NA	\$450	\$475	NA
MPDU Monthly Rent per Unit	NA	NA	\$1,177	\$1,396	NA	NA	NA
MPDU Sale Price per Unit	NA	NA	NA	NA	\$203,300	\$203,300	NA
Workforce Housing Rent per Unit	NA	NA	\$1,659	\$1,659	NA	NA	NA
Workforce Sale Price per Unit	NA	NA	NA	NA	\$298,400	\$298,400	NA
Cost of Sale	NA	NA	NA	NA	7%	7%	NA
Condo Parking Sale Price	NA	NA	NA	NA	\$0	\$40,000	NA
<b>Net Sales Proceeds</b>	NA	NA	NA	NA	<b>\$9,484,500</b>	<b>\$162,013,400</b>	NA
Office Rent per SF (full service)	\$38	\$42	NA	NA	NA	NA	NA
Retail Rent per SF (triple net)	\$45	\$45	\$45	\$45	\$45	\$45	\$45
Office Operating Expense per SF	\$9	\$9	NA	NA	NA	NA	NA
Occupancy Rate	95%	95%	95%	95%	95%	95%	95%
Apartment Operating Expense per Unit	NA	NA	\$5,000	\$5,000	NA	NA	NA
Apartment Monthly Parking Rate	NA	NA	\$50	\$100	NA	NA	NA
Office Monthly Parking Rate	\$50	\$100	NA	NA	NA	NA	NA
Retail Average Daily Parking Fees (3)	\$0.00	\$3.00	\$0.00	\$3.00	\$0.00	\$3.00	\$0.00
<b>Net Operating Income</b>	<b>\$1,713,000</b>	<b>\$13,925,000</b>	<b>\$1,402,600</b>	<b>\$9,485,500</b>	<b>\$891,100</b>	<b>\$2,270,000</b>	<b>\$1,466,000</b>





Table C-1. Development Pro Formas Under CBD 2 Zoning (Continued)

	Office/Retail		Apartments/Retail		Condominiums/Retail		Retail Standard
	Standard	Optional	Standard	Optional	Standard	Optional	
<b>Costs</b>							
Site Improvement Costs	\$490,100	\$490,100	\$435,600	\$435,600	\$435,600	\$435,600	\$490,100
Public Use Space Costs	\$416,500	\$833,000	\$416,500	\$833,000	\$416,500	\$833,000	\$416,500
Building Hard Costs	\$5,445,000	\$47,916,000	\$6,261,750	\$61,503,000	\$7,078,500	\$68,788,000	\$3,811,500
Parking Hard Costs	\$739,800	\$38,947,500	\$610,200	\$27,135,000	\$612,900	\$27,843,750	\$926,100
Development Approval Process (months)	6	12	6	12	6	12	6
Construction Period (months)	18	24	18	24	18	24	18
Construction Financing (fees & interest)	\$570,100	\$8,292,600	\$524,800	\$6,959,800	\$572,400	\$7,561,200	\$462,800
Other Soft Costs (excluding exactions)	\$1,772,900	\$22,046,700	\$1,931,000	\$22,476,700	\$2,135,900	\$24,475,100	\$1,411,100
Tenant Improvements	\$2,994,800	\$20,691,000	\$1,633,500	\$3,267,000	\$1,633,500	\$3,267,000	\$2,572,800
Development Return (% of Net Revenues)	NA	NA	NA	NA	15%	15%	NA
Building Lot Terminations	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Off-Site Parkland, Right-of-Way Dedication	NA	NA	NA	NA	NA	NA	NA
Exactions	\$433,300	\$2,309,600	\$576,400	\$2,324,400	\$590,100	\$2,720,400	\$346,500
<b>Total Non-Land Development Costs</b>	<b>\$12,862,500</b>	<b>\$141,526,500</b>	<b>\$12,389,800</b>	<b>\$124,934,500</b>	<b>\$13,475,400</b>	<b>\$135,924,100</b>	<b>\$10,437,400</b>
<b>Residual Land Value Analysis</b>							
Net Operating Income	\$1,713,000	\$13,925,000	\$1,402,600	\$9,485,500	\$931,100	\$2,270,000	\$1,466,000
Capitalized Value	\$21,412,500	\$174,062,500	\$20,037,100	\$135,507,100	\$21,899,200	\$192,280,100	\$19,546,700
Less Non-Land Development Costs	\$12,862,500	\$141,526,500	\$12,389,800	\$124,934,500	\$13,475,400	\$135,924,100	\$10,437,400
Less Required Return	\$1,296,300	\$14,152,700	\$1,115,100	\$11,244,100	\$1,422,700	\$24,302,000	\$1,043,700
<b>Land Residual Value</b>	<b>\$7,263,700</b>	<b>\$18,383,300</b>	<b>\$6,532,200</b>	<b>-\$671,500</b>	<b>\$7,001,100</b>	<b>\$32,054,000</b>	<b>\$8,065,600</b>
Land Residual per Site SF	\$67	\$169	\$60	-\$6	\$64	\$294	\$74
Land Residual per FAR SF	\$133	\$42	\$120	-\$1	\$129	\$68	\$212

Notes: (1) Assumes site location within 1,600 feet of a transit station. Surface parking up to 0.5 FAR; tuck-under parking 0.5 to 1.0 FAR; above ground structure 1.0 FAR and above. Assumes 35 percent one-bedroom units and 65 percent two-bedroom units.

(2) General retail at 5.0 spaces per 1,000 square feet and restaurants at 25.0 spaces per 1,000 square feet. Assumes 20 percent restaurant and 80 percent general retail. Adjusted for shared use.

(3) Retail parking revenues calculated at \$1.00 per hour with an average stay of two hours and a daily occupancy of 1.5 per space for developments with structured parking.

Source: Partners for Economic Solutions, 2009.



## TMX-2 Zoning

TMX – 2 zoning is designed to implement sector plans for Transit Station Development Areas by facilitating mixed use, encouraging land assembly, providing a variety of housing opportunities, promoting the effective use of transit facilities and providing for Building Lot Terminations (BLTs). Standard method allows development at a 0.5 FAR to a maximum height of 42 feet with 10 percent public use space. Frontage improvements are required, and lot coverage is limited to 75 percent for commercial development and 80 percent for residential development. The optional method allows a 2.0 FAR on a minimum lot of 18,000 square feet with height determined at project plan. Public use space increases from 10 to 20 percent, and maximum lot coverage for commercial development increases to 90 percent under the optional method. Accessing the additional density requires BLTs for 12.5 percent of the additional density. One BLT is required for each 9,000 square feet of residential space or each 7,500 square feet of non-residential space. Parking must comply with Article 59-E with the exceptions of one space per market-rate residential unit and 0.5 space per MPDU or WFHU, reduced parking for office buildings with long-term government leases; and reduced general retail and restaurant parking where less than 20 percent of the retail space is in restaurants. MPDUs must constitute at least 12.5 percent of the number of units allowed under the base zoning. In White Flint, WFHUs are required to equal at least 10 percent of the number of market-rate units. Additional density and height is allowed to accommodate the workforce housing units; however, it is not always used due to the potential for residents' opposition and development approval delays.

As with CBD 2 zoning, residential condominium/retail development under TMX – 2 zoning provided the highest land value. The absolute value of land under the TMX – 2 zoning was 60 percent of the value under the higher maximum FAR of CBD 2 zoning. Land values ranged from \$44 to \$174 per land square foot depending upon use and the choice of standard versus optional method development.

Table C-2. Development Pro Forms Under TMX - 2 Zoning

	Office/Retail		Apartments/Retail		Condominiums/Retail		Retail
	Standard	Optional	Standard	Optional	Standard	Optional	
<b>Development Characteristics</b>							
Floor Area Ratio	0.5	2.0	0.5	2.0	0.5	2.0	0.35
Site Size (SF)	108,900	108,900	108,900	108,900	108,900	108,900	108,900
Public Use Space (SF)	10,890	21,780	10,890	21,780	10,890	21,780	10,890
Net Lot Area	98,010	87,120	98,010	87,120	98,010	87,120	98,010
Total Gross Square Feet Including Bonus	54,450	217,800	54,450	232,800	54,450	234,100	38,115
Total Base Gross Square Feet	NA	NA	54,450	217,800	54,450	217,800	34,304
Bonus Density for Workforce Units	NA	NA	-	15,000	-	16,300	NA
Net Base Building Square Feet	49,005	196,020	46,283	185,130	46,283	185,130	NA
Residential Gross Leaseable Area	NA	NA	24,503	141,570	24,503	141,570	NA
Number of Residential Units	NA	NA	25	157	26	165	NA
Number of Market & MPDU Units	NA	NA	25	145	26	152	NA
Average Net Square Feet per Unit	NA	NA	980	902	942	931	NA
MPDUs	NA	NA	4	19	4	19	NA
Workforce Housing Units	NA	NA	-	12	-	13	NA
Office Gross Leaseable Area	27,225	152,460	NA	NA	NA	NA	NA
Retail Gross Leaseable Area (0.2-0.4 FAR)	21,780	43,560	21,780	43,560	21,780	43,560	34,304
Office Parking Spaces	78	418	NA	NA	NA	NA	NA
Residential Parking Spaces (1)	NA	NA	23	142	24	149	NA
Retail Parking Spaces (2)	196	213	196	392	196	392	343
<b>Operations</b>							
Market Apartment Monthly Rent per Unit	NA	NA	\$2,196	\$2,196	NA	NA	NA
Market Sale Price per Square Foot	NA	NA	NA	NA	\$450	\$475	NA
MPDU Monthly Rent per Unit	NA	NA	\$1,177	\$1,177	NA	NA	NA
MPDU Sale Price per Unit	NA	NA	NA	NA	\$203,300	\$203,300	NA
Workforce Housing Rent per Unit	NA	NA	\$1,659	\$1,659	NA	NA	NA
Workforce Sale Price per Unit	NA	NA	NA	NA	\$298,400	\$298,400	NA
Cost of Sale	NA	NA	NA	NA	7%	7%	NA
Condo Parking Sale Price	NA	NA	NA	NA	\$0	\$40,000	NA
Net Sales Proceeds	NA	NA	NA	NA	\$9,484,500	\$68,440,400	NA
Office Rent per SF (full service)	\$38	\$42	NA	NA	NA	NA	NA
Retail Rent per SF (triple net)	\$45	\$45	\$45	\$45	\$45	\$45	\$45
Office Operating Expense per SF	\$9	\$9	NA	NA	NA	NA	NA
Occupancy Rate	95%	95%	95%	95%	95%	95%	95%
Apartment Operating Expense per Unit	NA	NA	\$5,000	\$5,000	NA	NA	NA
Apartment Monthly Parking Rate	NA	NA	\$50	\$100	NA	NA	NA
Office Monthly Parking Rate	\$50	\$100	NA	NA	NA	NA	NA
Retail Average Daily Parking Fees (3)	\$0.00	\$3.00	\$0.00	\$3.00	\$0.00	\$3.00	\$0.00
<b>Net Operating Income</b>	<b>\$1,713,000</b>	<b>\$7,271,000</b>	<b>\$1,398,600</b>	<b>\$5,283,100</b>	<b>\$931,100</b>	<b>\$2,270,000</b>	<b>\$1,466,000</b>



Table C-2. Development Pro Formas Under TMX - 2 Zoning (Continued)

	Office/Retail		Apartments/Retail		Condominiums/Retail		Retail Standard
	Standard	Optional	Standard	Optional	Standard	Optional	
<b>Costs</b>							
Site Improvement Costs	\$490,100	\$490,100	\$435,600	\$435,600	\$435,600	\$435,600	\$490,100
Public Use Space Costs	\$416,500	\$833,000	\$416,500	\$833,000	\$416,500	\$833,000	\$416,500
Building Hard Costs	\$5,445,000	\$21,780,000	\$6,261,750	\$26,772,000	\$7,078,500	\$30,433,000	\$3,811,500
Parking Hard Costs	\$739,800	\$18,551,400	\$591,300	\$15,699,600	\$594,000	\$15,905,400	\$926,100
Development Approval Process (months)	6	12	6	12	6	12	6
Construction Period (months)	18	24	18	24	18	24	18
Construction Financing (fees & interest)	\$570,100	\$3,987,700	\$523,700	\$3,487,000	\$571,300	\$3,777,800	\$462,800
Other Soft Costs (excluding exactions)	\$1,772,900	\$10,413,600	\$1,926,300	\$10,935,100	\$2,131,200	\$11,901,800	\$1,411,100
Tenant Improvements	\$2,994,800	\$10,890,000	\$1,633,500	\$3,267,000	\$1,633,500	\$3,267,000	\$2,572,800
Development Return (% of Net Revenues)	NA	NA	NA	NA	15%	15%	NA
Building Lot Terminations	\$0	\$544,500	\$0	\$475,100	\$0	\$475,100	\$0
Off-Site Parkland, Right-of-Way Dedication	NA	NA	NA	NA	NA	NA	NA
Exactions	\$433,300	\$1,231,500	\$576,400	\$2,124,100	\$590,100	\$2,219,500	\$346,500
<b>Total Non-Land Development Costs</b>	<b>\$12,862,500</b>	<b>\$68,721,800</b>	<b>\$12,365,100</b>	<b>\$64,028,500</b>	<b>\$13,450,700</b>	<b>\$69,248,200</b>	<b>\$10,437,400</b>
<b>Residual Land Value Analysis</b>							
Net Operating Income	\$1,713,000	\$7,271,000	\$1,398,600	\$5,283,100	\$931,100	\$2,270,000	\$1,466,000
Capitalized Value	\$21,412,500	\$90,887,500	\$19,980,000	\$75,472,900	\$21,899,200	\$98,707,100	\$19,546,700
Less Non-Land Development Costs	\$12,862,500	\$68,721,800	\$12,365,100	\$64,028,500	\$13,450,700	\$69,248,200	\$10,437,400
Less Required Return	\$1,286,300	\$6,872,200	\$1,112,900	\$5,762,600	\$1,422,700	\$10,266,100	\$1,043,700
<b>Land Residual Value</b>	<b>\$7,263,700</b>	<b>\$15,293,500</b>	<b>\$6,502,000</b>	<b>\$5,681,800</b>	<b>\$7,025,800</b>	<b>\$19,192,800</b>	<b>\$8,065,600</b>
Land Residual per Site SF	\$67	\$140	\$60	\$52	\$65	\$176	\$74
Land Residual per FAR SF	\$133	\$70	\$119	\$24	\$129	\$82	\$212

Notes: (1) Assumes site location within 1,600 feet of a transit station. Surface parking up to 0.5 FAR; tuck-under parking 0.5 to 1.0 FAR; above-ground structure 1.0 FAR and above. Assumes 35 percent one-bedroom units and 65 percent two-bedroom units.

(2) General retail at 5.0 spaces per 1,000 square feet and restaurants at 25.0 spaces per 1,000 square feet. Assumes 20 percent restaurant and 80 percent general retail. Adjusted for shared use.

(3) Retail parking revenues calculated at \$1.00 per hour with an average stay of two hours and a daily occupancy of 1.5 per space for developments with structured parking.

Source: Partners for Economic Solutions, 2009.

## C2 Zoning

The C2 General Commercial zoning is typically applied to urban commercial areas, regional shopping centers and clusters of commercial development. C2 zoning allows new commercial development up to 1.5 FAR to a height of 42 feet; however, it is hard to achieve 1.5 FAR under that height limit without going to underground parking. Lot coverage is limited to no more than 75 percent, and the project must provide 10 percent green space. With mixed-use development, the maximum height increases to 75 feet and FAR increases up to 2.5 provided that no more than 1.0 FAR is commercial space and that the ground floor is all commercial except for ancillary lobbies and loading docks serving the residential space. Parking is required under the provisions of Article 59-E with adjustments for shared use.

With the further purpose of promoting effective use of transit facilities by encouraging housing with commercial uses in close proximity to Metro stations in central business districts, special provisions are made for sites of at least 40,000 square feet in Transit-Oriented Mixed Use (TOMU) development within Metro Station Policy Areas. TOMU projects are required to provide a significant public benefit through dedication of off-site parkland or right-of-way equivalent to 25 percent of the site area.

Shown in Table C-3, returns are highest under residential condominium/retail development followed by office/retail and residential apartment/retail development.



Table C-3. Development Pro Forms Under C2 Standard Zoning

	Office/Retail		Apartments/Retail		Condominiums/Retail		Retail
	Commercial	Mixed Use	Commercial	Mixed Use	Commercial	Mixed Use	
<b>Development Characteristics</b>							
Floor Area Ratio	1.5	NA	NA	2.0	2.0	1.5	2.0
Site Size (SF)	106,900	NA	NA	106,900	106,900	106,900	106,900
Public Use Space (SF)	10,890	NA	NA	10,890	10,890	10,890	10,890
Net Lot Area	96,010	NA	NA	96,010	96,010	96,010	96,010
Total Gross Square Feet Including Bonus	163,360	NA	NA	232,800	232,800	174,650	38,115
Total Base Gross Square Feet	NA	NA	NA	217,900	217,900	163,360	34,304
Bonus Density for Workforce Units	NA	NA	NA	20,000	15,000	11,300	NA
Net Base Building Square Feet	147,015	NA	NA	231,413	185,130	138,848	NA
Residential Gross Leasable Area	NA	NA	NA	187,853	141,570	95,288	NA
Number of Residential Units	NA	NA	NA	209	157	112	NA
Number of Market & MPDU Units	NA	NA	NA	183	145	103	NA
Average Net Square Feet per Unit	NA	NA	NA	899	902	925	NA
MPDU's	NA	NA	NA	25	19	13	NA
Workforce Housing Units	NA	NA	NA	16	12	9	NA
Office Gross Leasable Area	103,465	NA	NA	NA	NA	NA	NA
Retail Gross Leasable Area (0.2-0.4 FAR)	43,560	NA	NA	43,560	43,560	43,560	34,304
Office Parking Spaces	287	NA	NA	NA	NA	NA	NA
Residential Parking Spaces (1)	NA	NA	NA	237	178	127	NA
Retail Parking Spaces (2)	213	NA	NA	392	392	392	343
<b>Operations</b>							
Market Apartment Monthly Rent per Unit	NA	NA	NA	\$2,196	NA	NA	NA
Market Sale Price per Square Foot	NA	NA	NA	NA	NA	\$475	NA
MPDU Monthly Rent per Unit	NA	NA	NA	\$1,177	NA	NA	NA
MPDU Sale Price per Unit	NA	NA	NA	NA	NA	\$203,300	NA
Workforce Housing Rent per Unit	NA	NA	NA	\$1,659	\$1,659	NA	NA
Workforce Sale Price per Unit	NA	NA	NA	NA	NA	\$298,400	NA
Cost of Sale	NA	NA	NA	NA	NA	7%	NA
Condo Parking Sale Price	NA	NA	NA	NA	NA	\$40,000	NA
<b>Net Sales Proceeds</b>	NA	NA	NA	NA	NA	\$47,370,000	\$69,854,000
Office Rent per SF (full service)	NA	NA	NA	NA	NA	NA	NA
Retail Rent per SF (triple net)	\$46	NA	NA	\$46	\$46	\$45	\$45
Office Operating Expense per SF	\$9	NA	NA	NA	NA	NA	NA
Occupancy Rate	96%	NA	NA	96%	96%	96%	96%
Apartment Operating Expense per Unit	NA	NA	NA	\$5,000	\$5,000	NA	NA
Apartment Monthly Parking Rate	NA	NA	NA	\$100	\$100	NA	NA
Office Monthly Parking Rate	\$100	NA	NA	NA	NA	NA	NA
Retail Average Daily Parking Fees (3)	\$3.00	NA	NA	\$3.00	\$3.00	\$3.00	\$3.00
<b>Net Operating Income</b>	\$5,605,000	NA	NA	\$6,339,000	\$5,324,100	\$2,270,000	\$1,466,000



Table C-3. Development Pro Formas Under C2 Standard Zoning (Continued)

	Office/Retail			Apartments/Retail			Condominiums/Retail			Retail		
	Commercial	Mixed Use	TOMU	Commercial	Mixed Use	TOMU	Commercial	Mixed Use	TOMU	Commercial	Mixed Use	TOMU
<b>Costs</b>												
Site Improvement Costs	\$490,100	NA	NA	NA	\$435,600	\$435,600	NA	\$435,600	\$435,600	NA	\$435,600	\$490,100
Public Use Space Costs	\$416,500	NA	NA	NA	\$416,500	\$416,500	NA	\$416,500	\$416,500	NA	\$416,500	\$416,500
Building Hard Costs	\$16,335,000	NA	NA	NA	\$33,608,750	\$28,772,000	NA	\$22,704,500	\$30,433,000	NA	\$30,433,000	\$3,811,500
Parking Hard Costs	\$14,700,000	NA	NA	NA	\$18,492,600	\$11,400,000	NA	\$15,258,600	\$11,580,000	NA	\$11,580,000	\$926,100
Development Approval Process (months)	6	NA	NA	NA	6	6	NA	6	6	NA	6	6
Construction Period (months)	24	NA	NA	NA	24	24	NA	24	24	NA	24	18
Construction Financing (fees & interest)	\$2,978,600	NA	NA	NA	\$4,167,800	\$3,123,100	NA	\$3,107,400	\$3,411,200	NA	\$3,411,200	\$462,900
Other Soft Costs (excluding exactions)	\$7,985,400	NA	NA	NA	\$13,238,400	\$9,756,000	NA	\$9,703,800	\$10,716,300	NA	\$10,716,300	\$1,411,100
Tenant Improvements	\$5,439,800	NA	NA	NA	\$3,267,000	\$3,267,000	NA	\$3,267,000	\$3,267,000	NA	\$3,267,000	\$2,572,800
Development Return (% of Net Revenues)	NA	NA	NA	NA	NA	NA	NA	15%	15%	NA	15%	NA
Building Lot Terminations	\$0	NA	NA	NA	\$0	\$0	NA	\$0	\$0	NA	\$0	\$0
Off-Site Parkland, Right-of-Way Dedication	NA	NA	NA	NA	NA	\$1,361,300	NA	NA	NA	NA	\$2,926,300	NA
Exactions	\$961,900	NA	NA	NA	\$2,696,900	\$2,194,100	NA	\$1,633,100	\$2,219,500	NA	\$2,219,500	\$346,500
<b>Total Non-Land Development Costs</b>	<b>\$62,307,300</b>	NA	NA	NA	<b>\$76,323,500</b>	<b>\$68,605,600</b>	NA	<b>\$56,526,500</b>	<b>\$65,405,400</b>	NA	<b>\$65,405,400</b>	<b>\$10,437,400</b>
<b>Residual Land Value Analysis</b>												
Net Operating Income	\$5,608,000	NA	NA	NA	\$6,339,000	\$5,324,100	NA	\$2,270,000	\$2,270,000	NA	\$2,270,000	\$1,466,000
Capitalized Value	\$70,100,000	NA	NA	NA	\$90,557,100	\$76,058,600	NA	\$77,636,700	\$100,120,700	NA	\$100,120,700	\$19,646,700
Less Non-Land Development Costs	\$62,307,300	NA	NA	NA	\$76,323,500	\$68,655,600	NA	\$56,526,500	\$65,405,400	NA	\$65,405,400	\$10,437,400
Less Required Return	\$5,230,700	NA	NA	NA	\$6,869,100	\$5,279,000	NA	\$7,105,500	\$10,478,100	NA	\$10,478,100	\$1,043,700
<b>Land Residual Value</b>	<b>\$12,562,000</b>	NA	NA	NA	<b>\$7,864,500</b>	<b>\$12,124,000</b>	NA	<b>\$14,004,700</b>	<b>\$24,237,200</b>	NA	<b>\$24,237,200</b>	<b>\$8,065,600</b>
<b>Land Residual per Site SP</b>	<b>\$116</b>	NA	NA	NA	<b>\$68</b>	<b>\$111</b>	NA	<b>\$129</b>	<b>\$223</b>	NA	<b>\$223</b>	<b>\$74</b>
<b>Land Residual per FAR SP</b>	<b>\$77</b>	NA	NA	NA	<b>\$25</b>	<b>\$52</b>	NA	<b>\$90</b>	<b>\$104</b>	NA	<b>\$104</b>	<b>\$212</b>

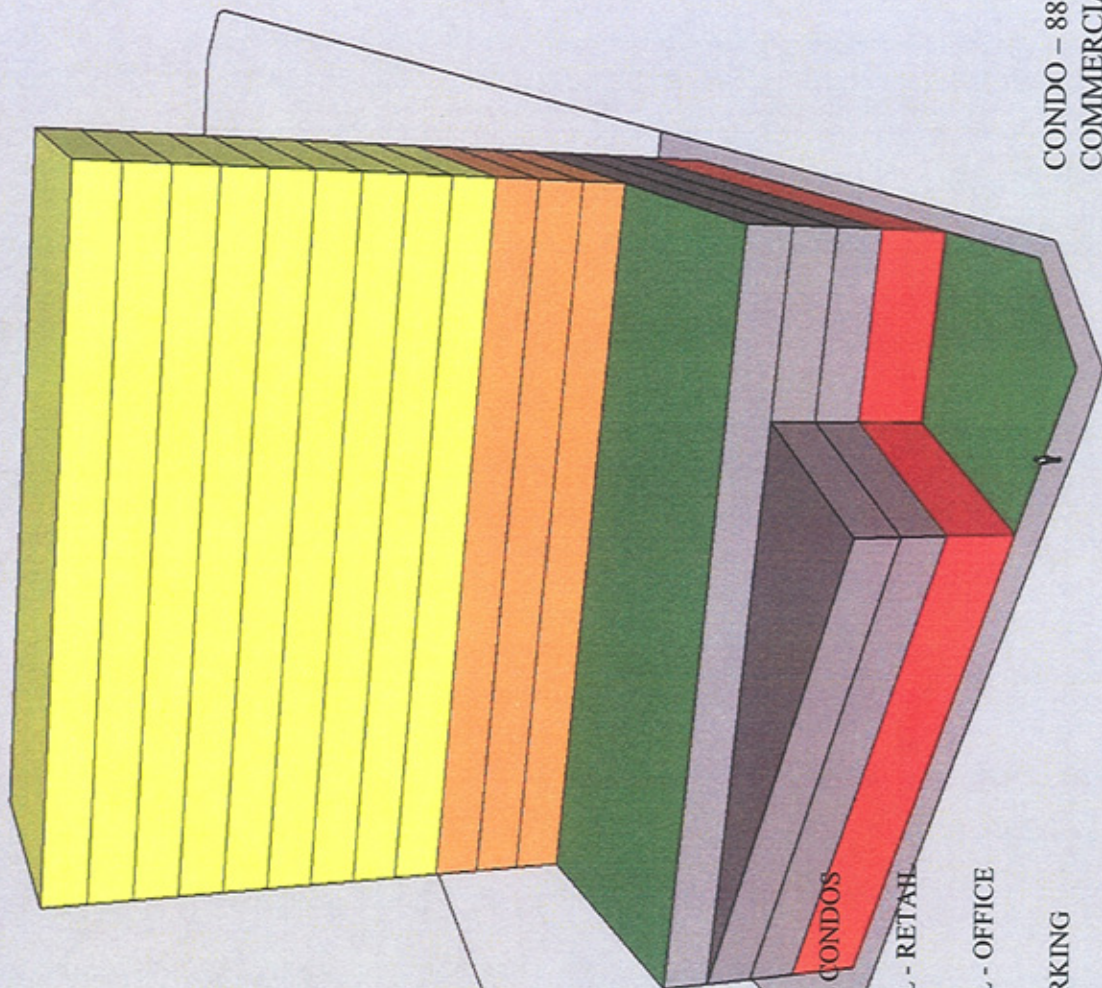
Notes: (1) Assumes site location within 1,000 feet of a transit station. Surface parking up to 0.5 FAR; truck-under parking 0.5 to 1.0 FAR; above-ground structure 1.0 FAR and above. Assumes 35 percent car-bedroom units and 65 percent two-bedroom units.  
 (2) General retail at 5.0 spaces per 1,000 square feet and restaurants at 25.0 spaces per 1,000 square feet. Assumes 20 percent restaurant and 80 percent general retail. Adjusted for shared use.  
 (3) Retail parking revenues calculated at \$1.00 per hour with an average stay of two hours and a daily occupancy of 1.5 per space for developments with structured parking.  
 Source: Partners for Economic Solutions, 2009.





**Appendix D. Massing Studies for Development Under CR  
Zoning**

SITE #1 - ALTERNATIVE #1 - CR 4.0

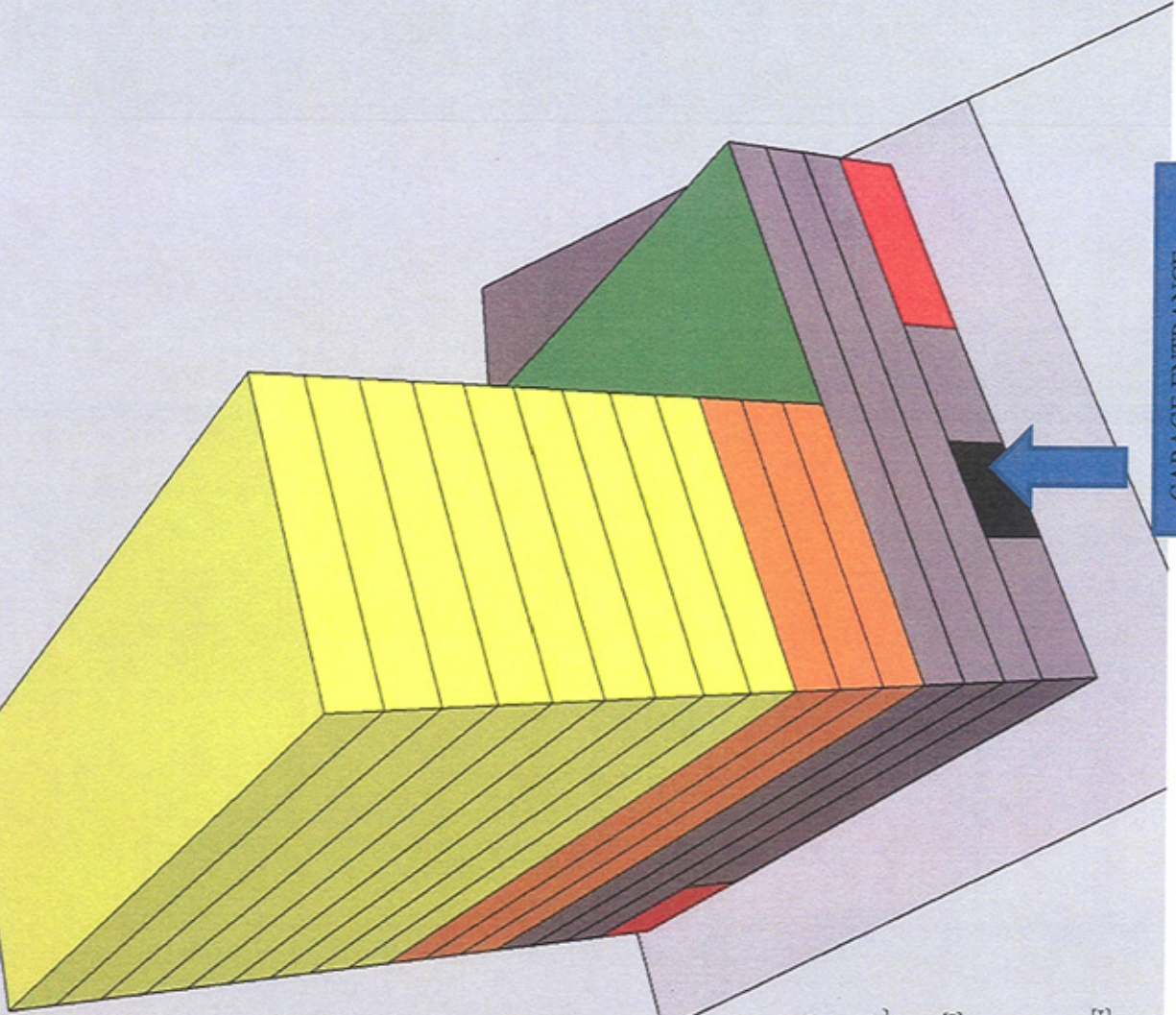


- RESIDENTIAL CONDOS
- COMMERCIAL - RETAIL
- COMMERCIAL - OFFICE
- GARAGE - PARKING
- PUBLIC - GREEN SPACE

CONDO - 88,749 SF  
COMMERCIAL - NON-RETAIL 29,583 SF  
COMMERCIAL - RETAIL 9,748 SF.  
PARKING - 183 SPACES



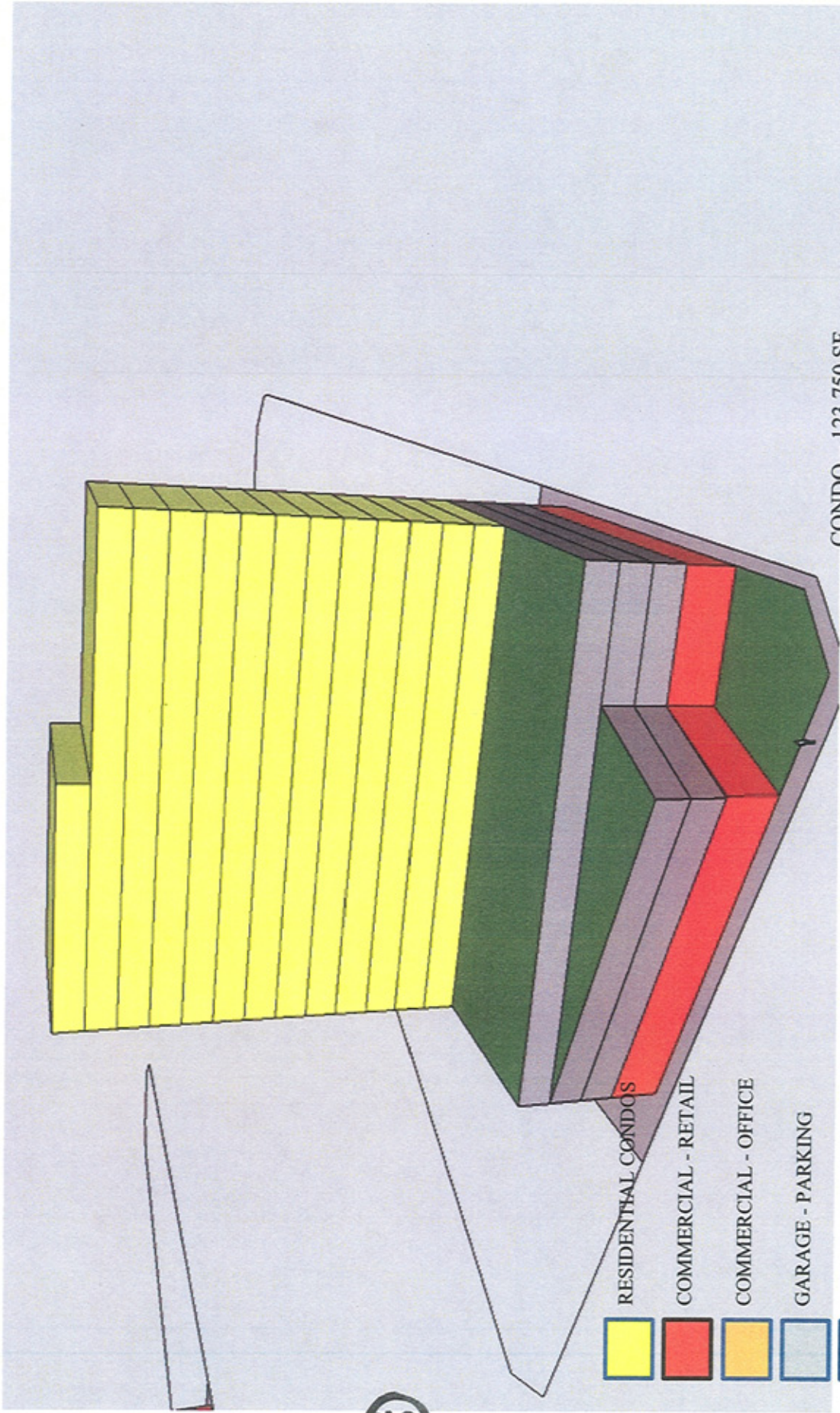
SITE #1 - ALTERNATIVE #1 - CR-4.0



- RESIDENTIAL CONDOS
- COMMERCIAL - RETAIL
- COMMERCIAL - OFFICE
- GARAGE - PARKING
- PUBLIC - GREEN SPACE



SITE #1 - ALTERNATIVE #2 - R 2.9

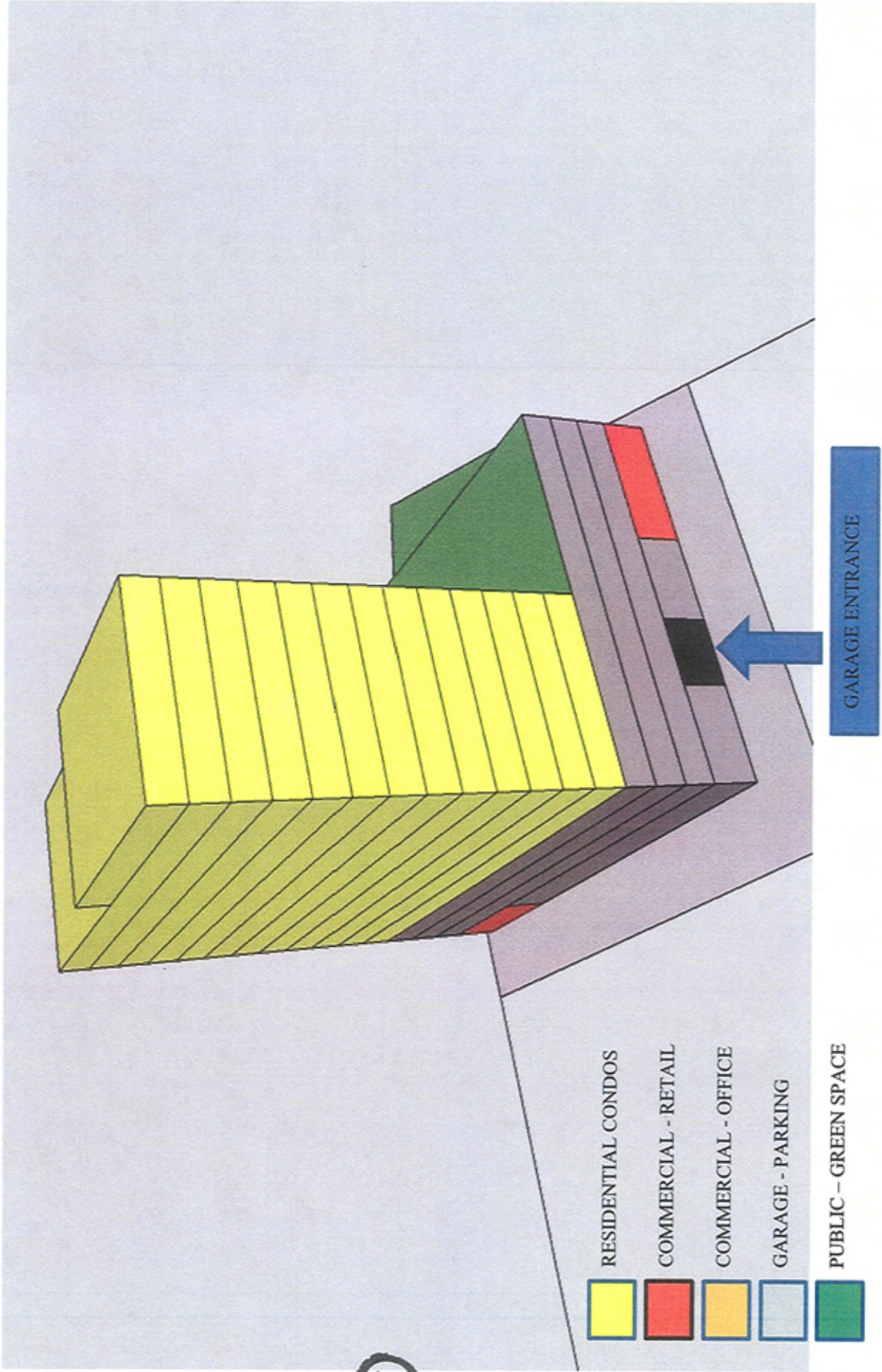


CONDO - 123,750 SF  
COMMERCIAL - RETAIL 9,748 SF  
PARKING - 184 SPACES

- RESIDENTIAL CONDOS
- COMMERCIAL - RETAIL
- COMMERCIAL - OFFICE
- GARAGE - PARKING
- PUBLIC - GREEN SPACE

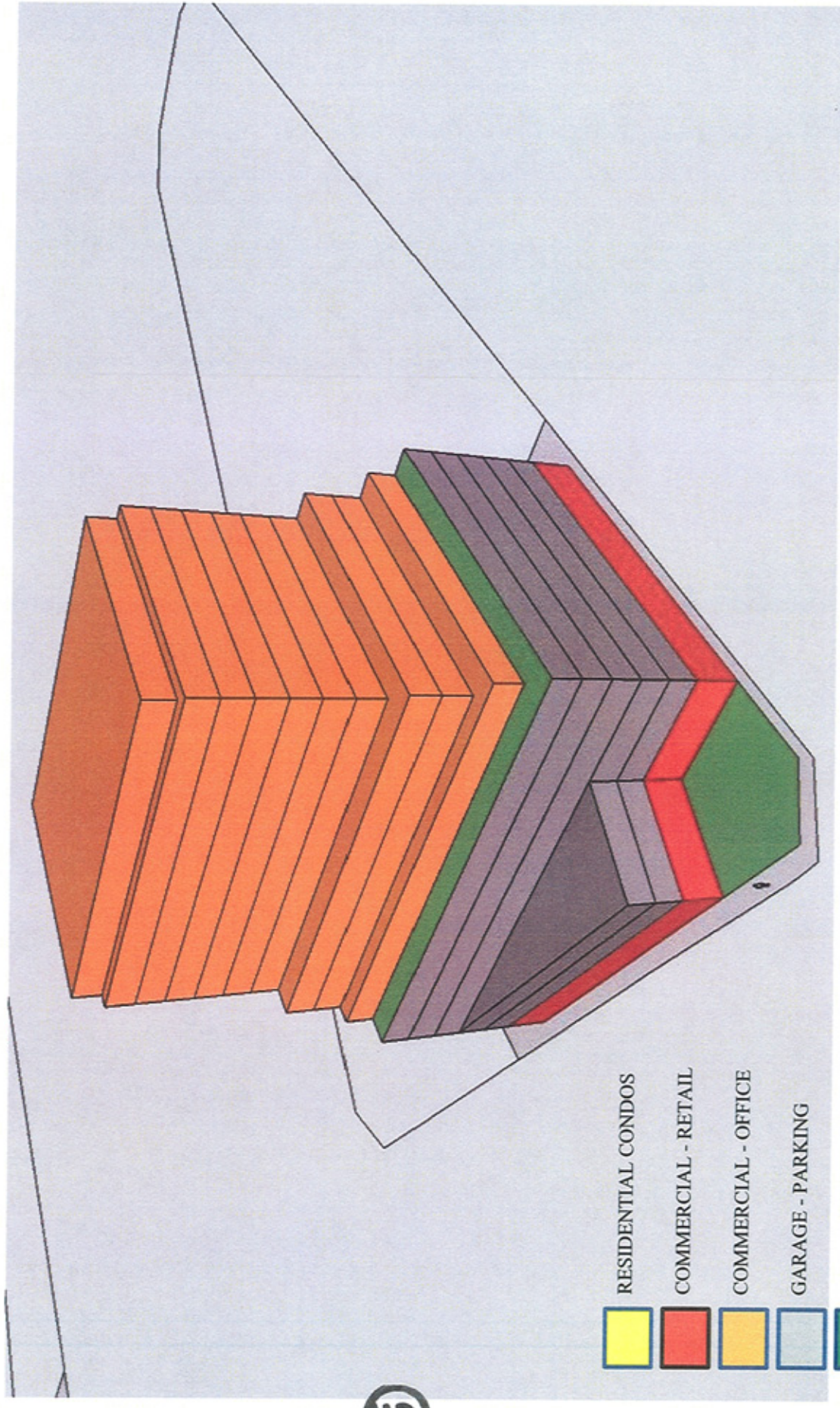


SITE #1 - ALTERNATIVE #2 - R 2.9





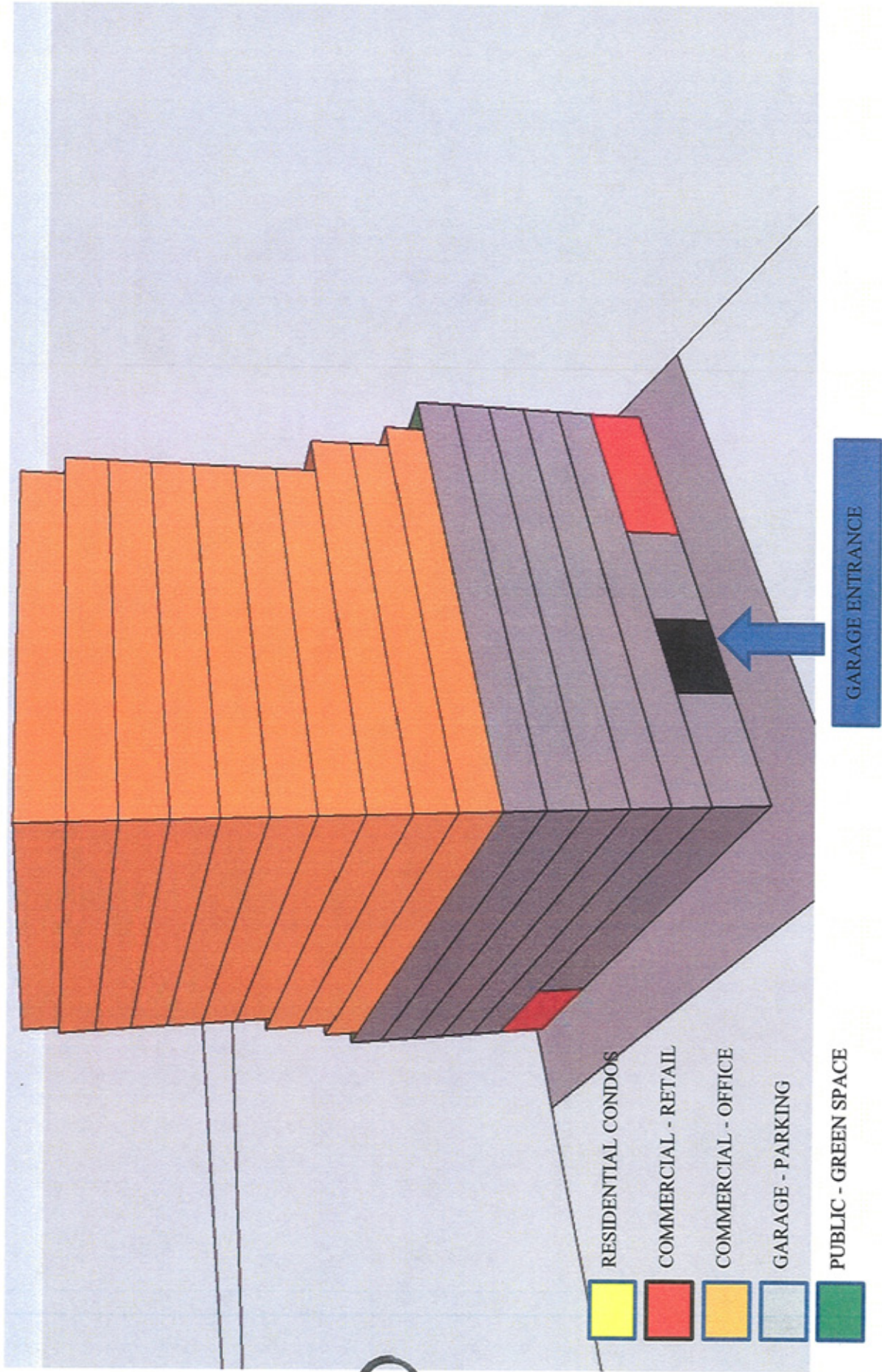
SITE #1 - ALTERNATIVE #3 - C 3.5



COMMERCIAL - NON-RETAIL 134,416 SF  
COMMERCIAL - RETAIL 9,748 SF  
PARKING - 301 SPACES

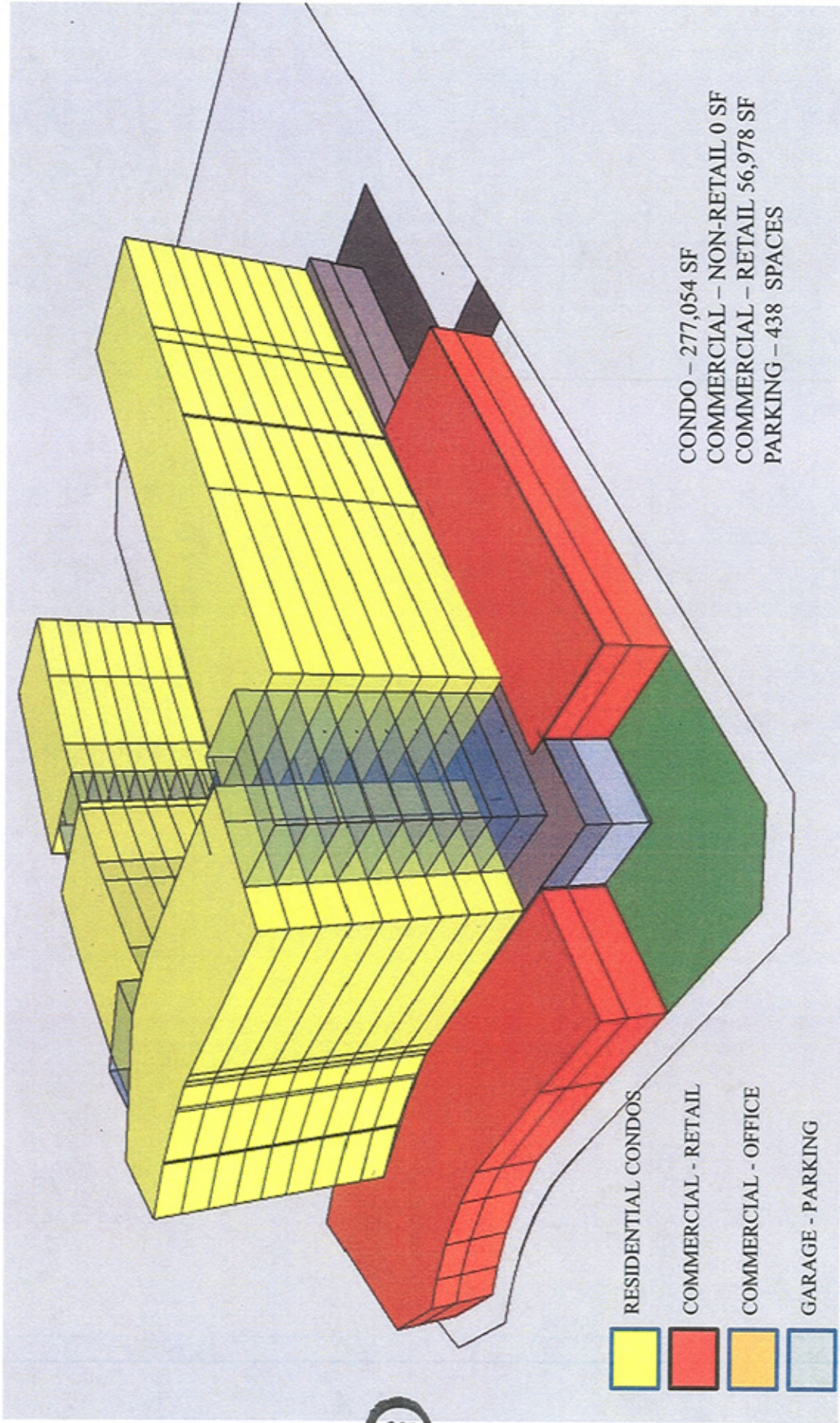


SITE #1 – ALTERNATIVE #3 – C 3.5



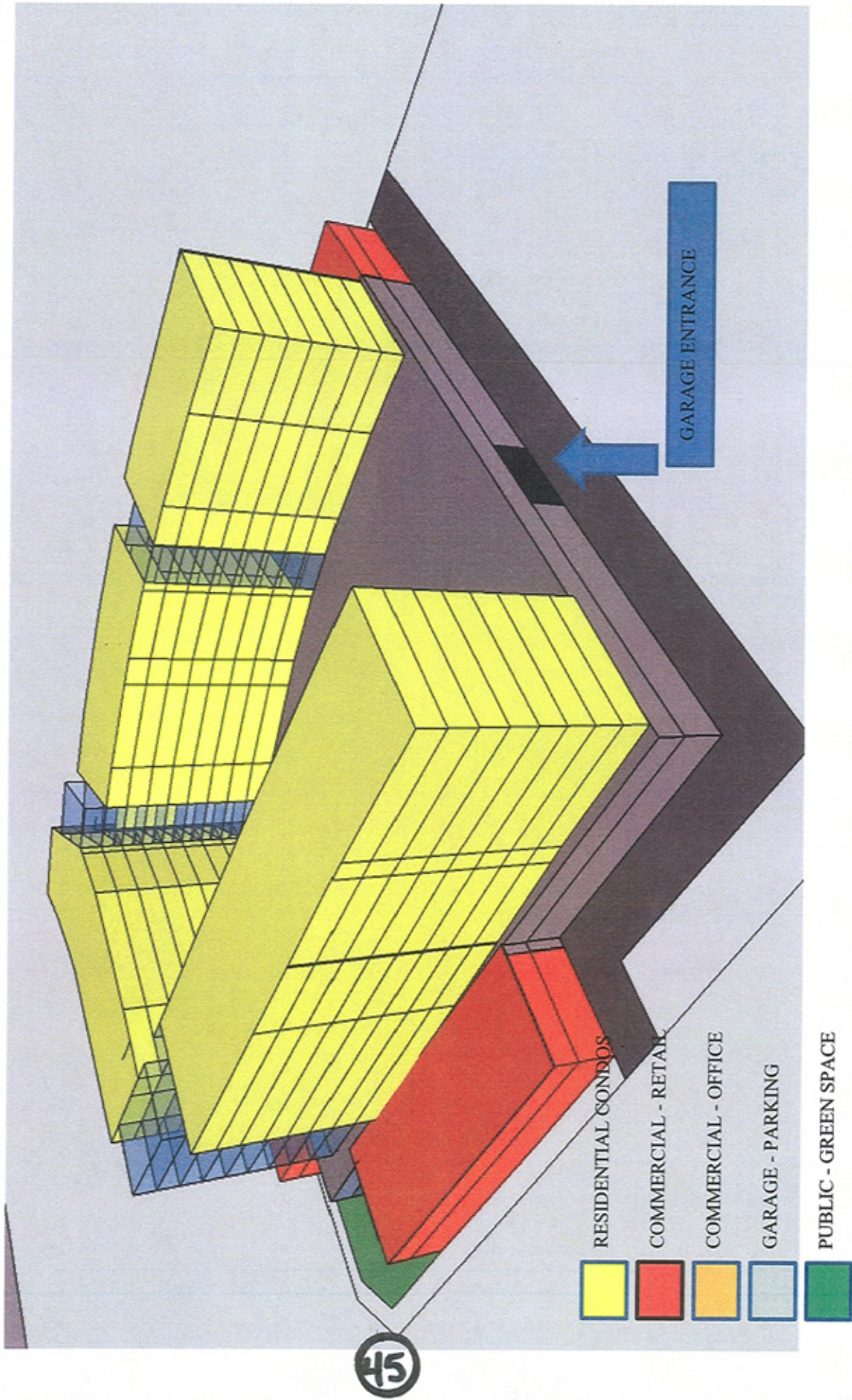


SITE #2 - ALTERNATIVE #1 - CR 2.9



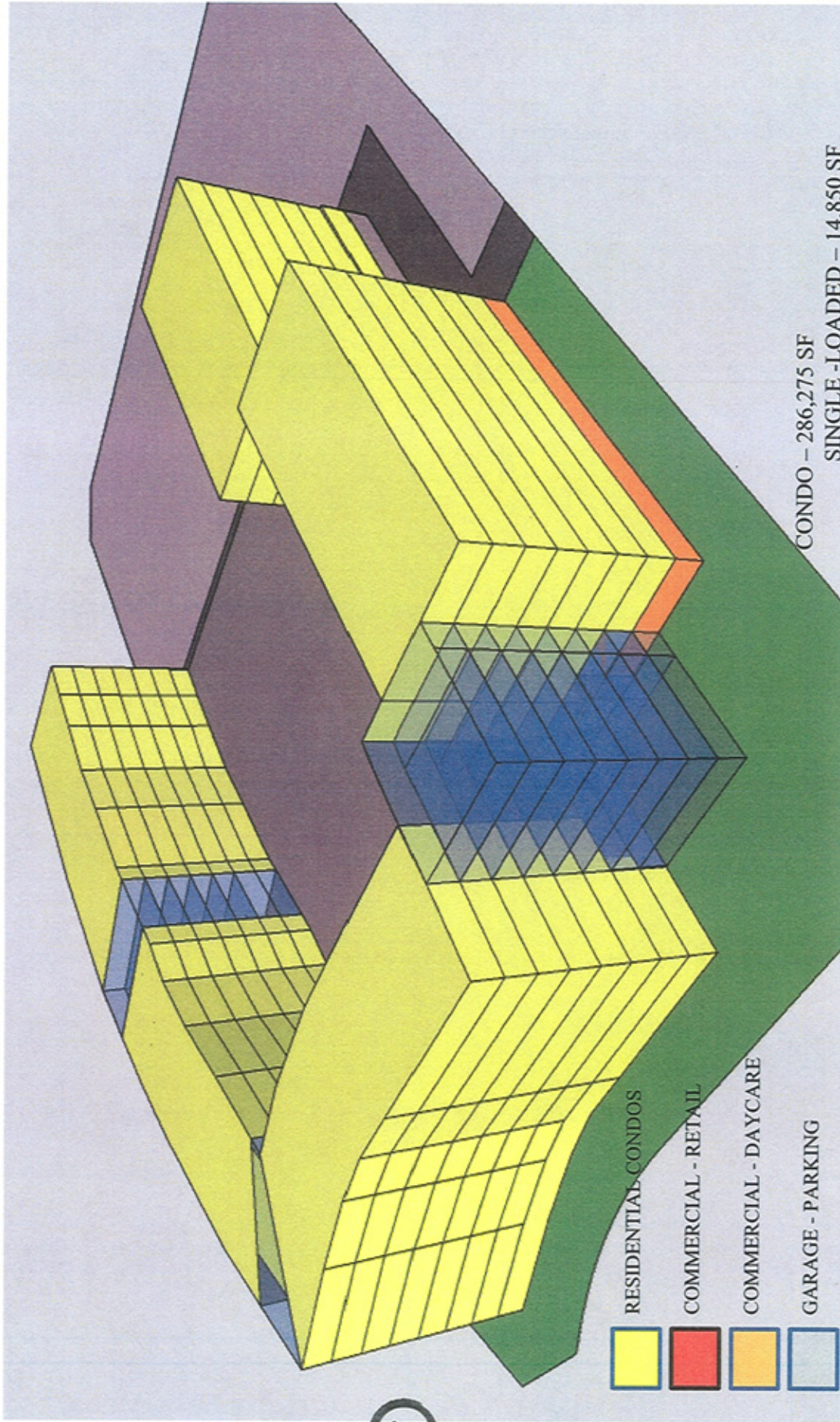


SITE #2 – ALTERNATIVE #1 – CR 2.9





SITE #2 – ALTERNATIVE #2 – R 2.5

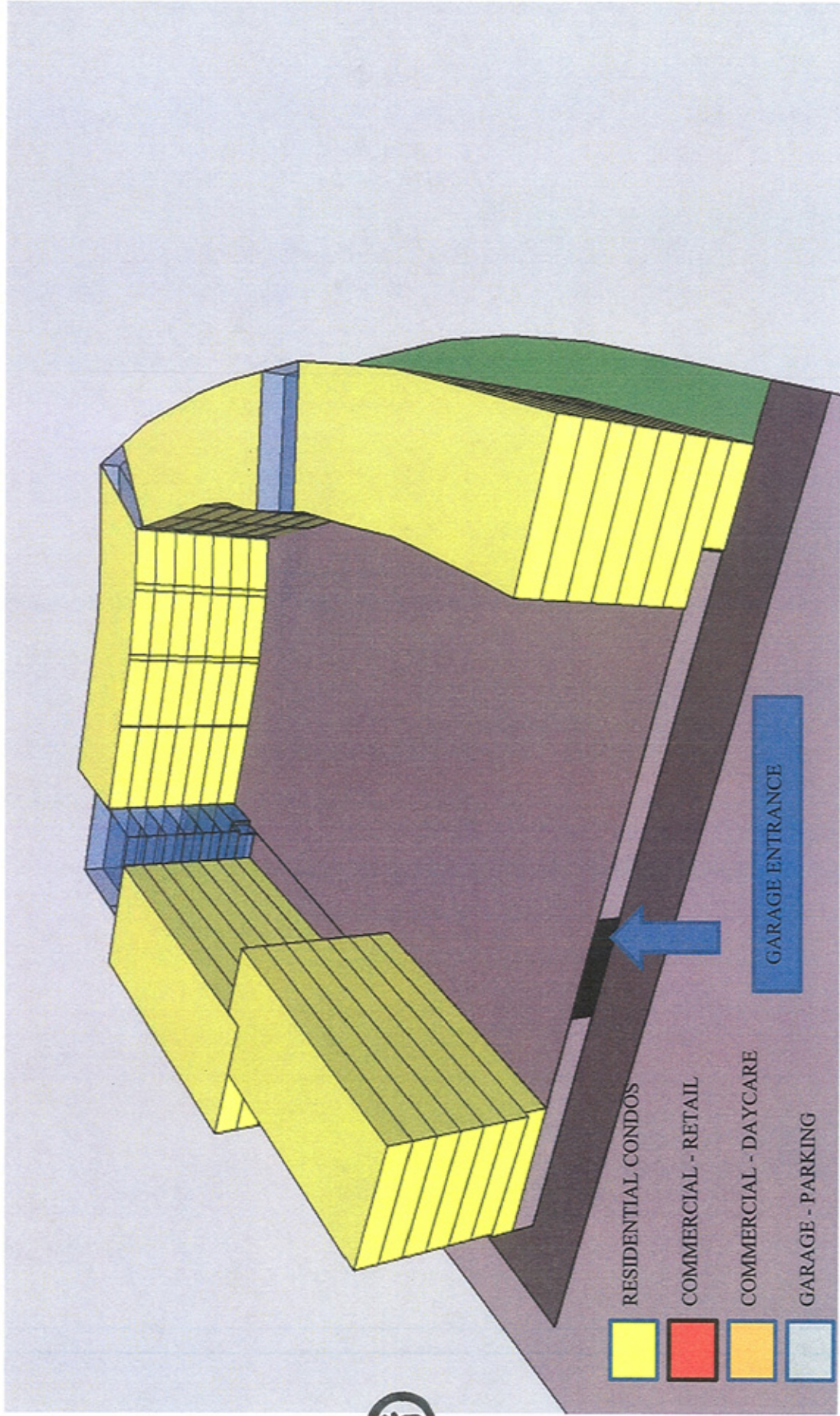


- RESIDENTIAL CONDOS
- COMMERCIAL - RETAIL
- COMMERCIAL - DAYCARE
- GARAGE - PARKING
- PUBLIC - GREEN SPACE

CONDO - 286,275 SF  
SINGLE - LOADED - 14,850 SF  
DOUBLE - LOADED - 271,425 SF  
COMMERCIAL - DAYCARE - 4,865 SF  
PARKING - 270 SPACES

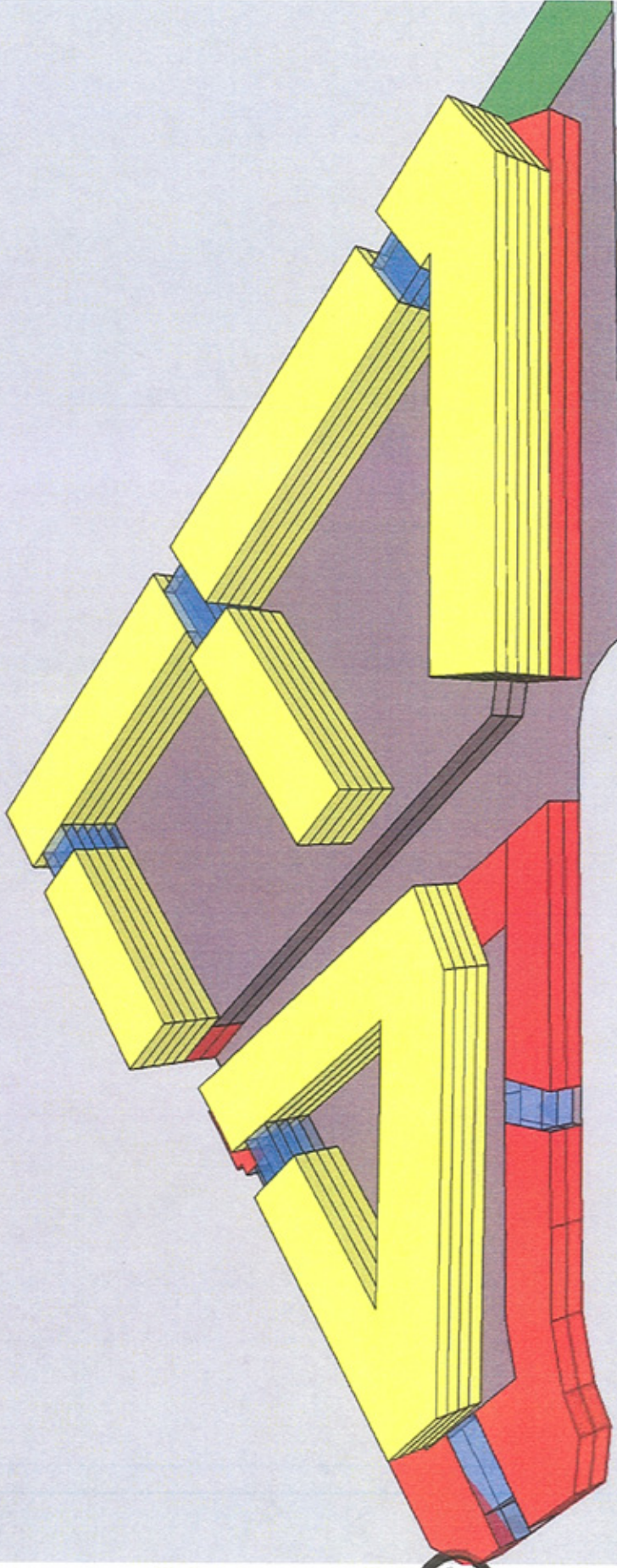


SITE #2 - ALTERNATIVE #2 - R 2.5





SITE #3 - ALTERNATIVE #1 - CR 2.4



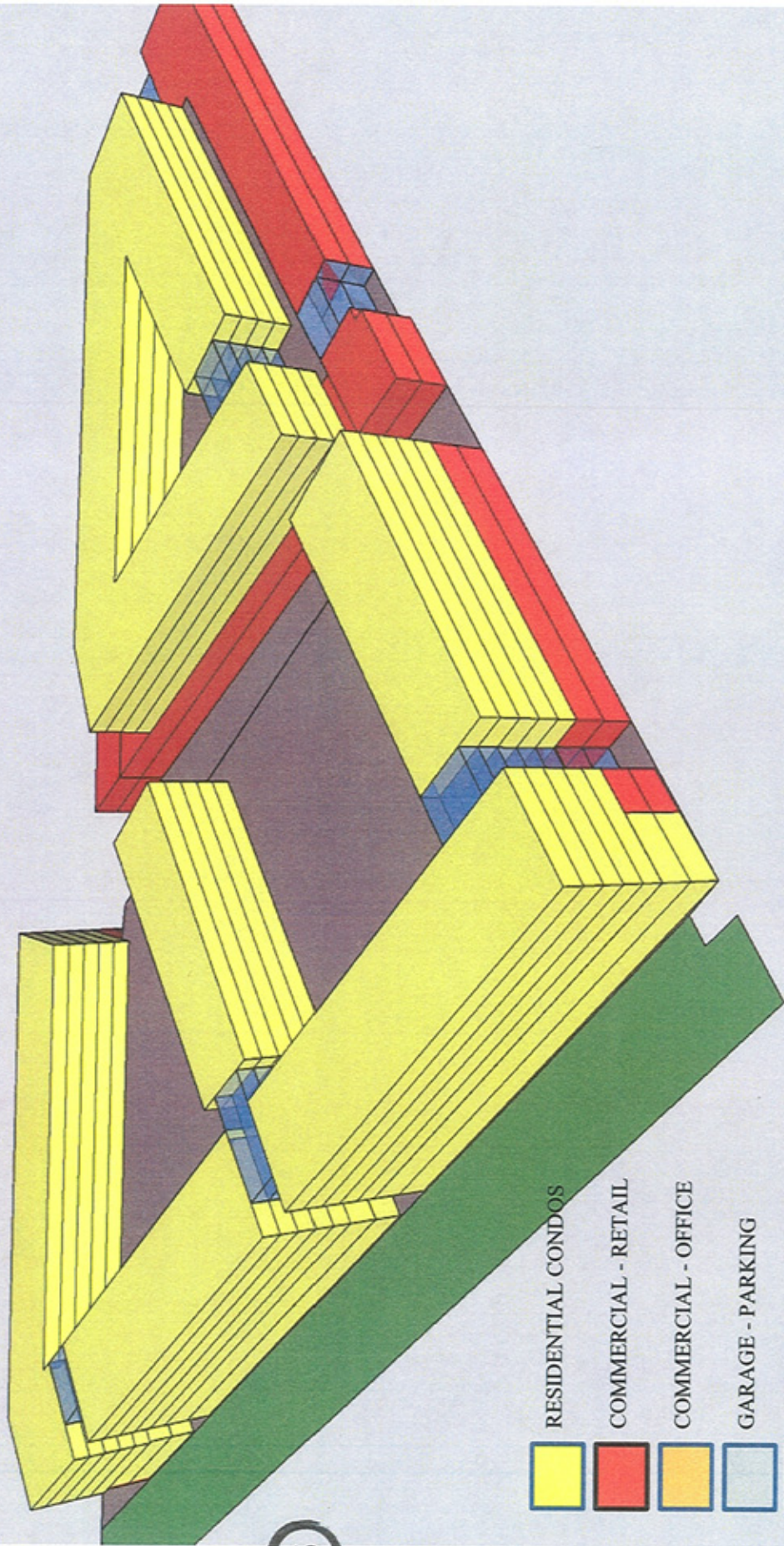
48

- RESIDENTIAL CONDOS
- COMMERCIAL - RETAIL
- COMMERCIAL - OFFICE
- GARAGE - PARKING
- PUBLIC - GREEN SPACE

CONDO - 576,327 SF.  
COMMERCIAL - NON-RETAIL 0 SF  
COMMERCIAL - RETAIL 131,562 SF  
PARKING - 925 SPACES



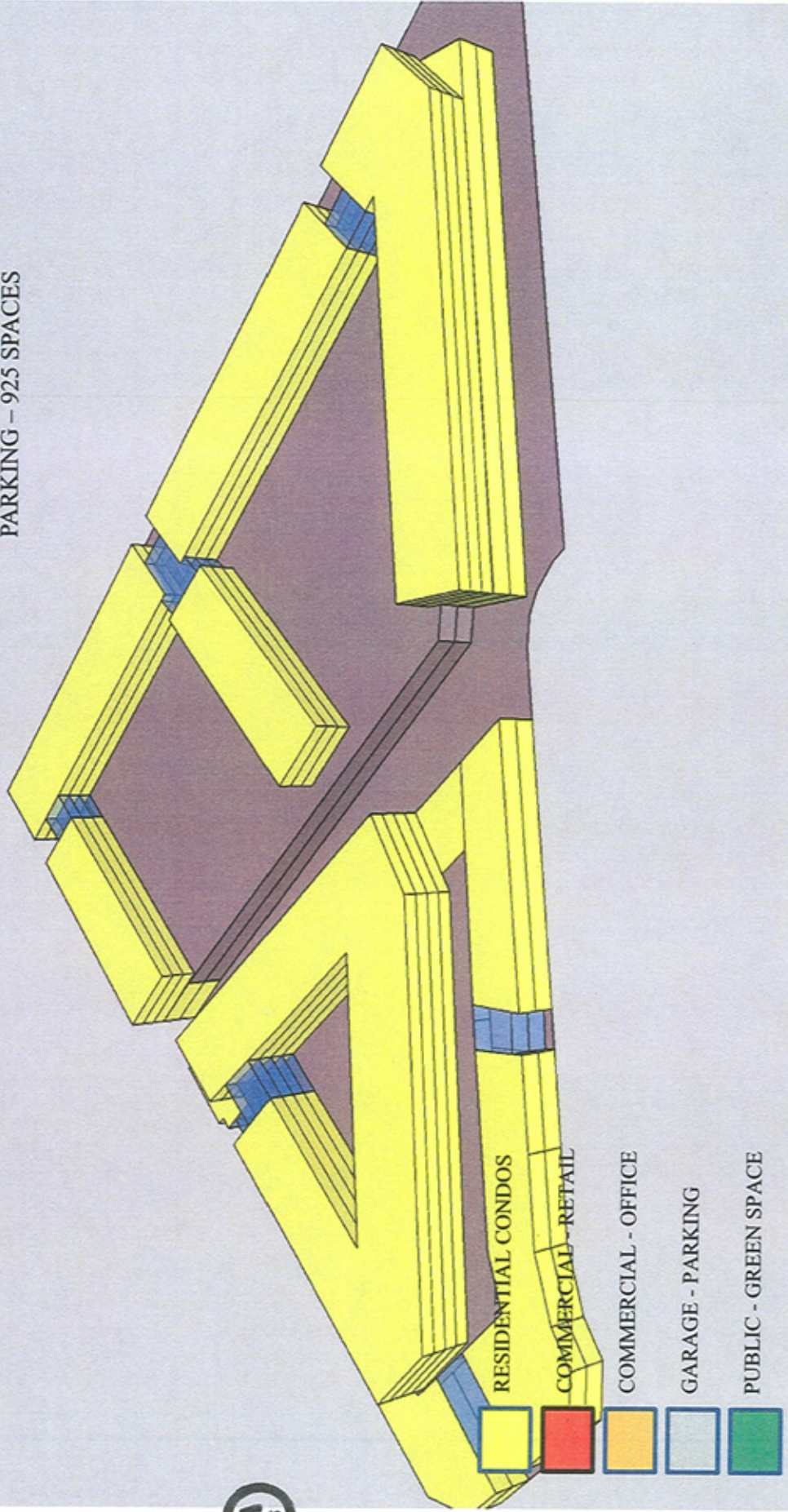
SITE #3 – ALTERNATIVE #1 – CR 2.4





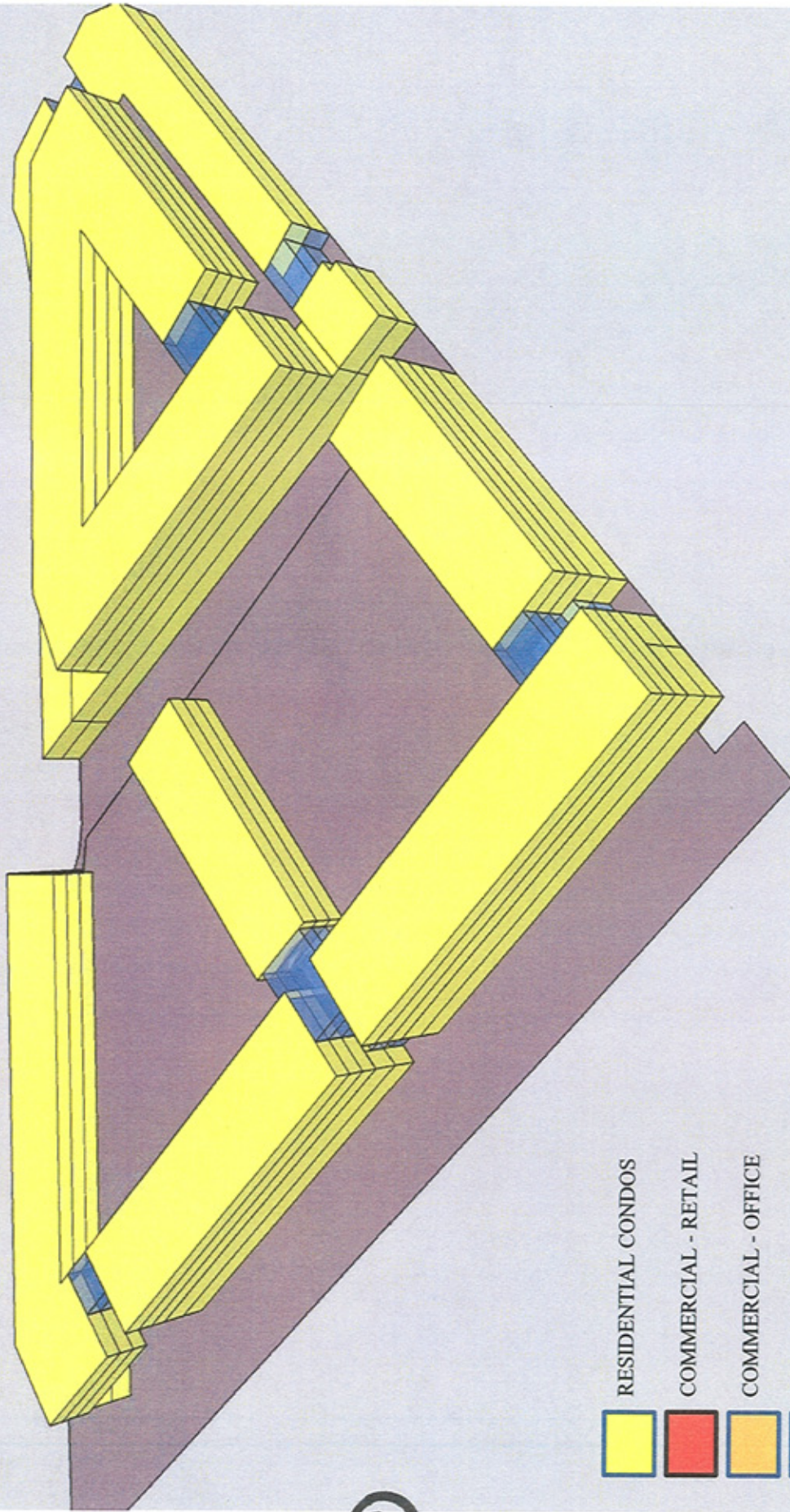
SITE #3 - ALTERNATIVE #2 - R 2.0

CONDO - 524,023 SF. (TOTAL)  
SINGLE-LOADED - 161,266 SF  
DOUBLE-LOADED - 362,757 SF  
COMMERCIAL - NON-RETAIL 0 SF  
COMMERCIAL - RETAIL 0 SF  
PARKING - 925 SPACES





SITE #3 - ALTERNATIVE #2 - R 2.0



- RESIDENTIAL CONDOS
- COMMERCIAL - RETAIL
- COMMERCIAL - OFFICE
- GARAGE - PARKING
- PUBLIC - GREEN SPACE

**Appendix E. Incremental Costs and Benefits of Incentive  
Density Factors**



Table E-1. Land Value Benefits Associated with CR Zoning Incentive Density

Incentive Density Factor	Site #2 - Nicholson Ln. at Nebel St. (NW)					
	Standard	Transit Incentive	Community Connectivity Incentive	WFHU Incentive	Care Center Incentive	LEED Gold Incentive
<b>Development Characteristics</b>						
Floor Area Ratio	0.50	1.25	1.75	2.25	2.50	2.92
Site Size (SF)	133,170	133,170	133,170	133,170	133,170	133,170
Public Use Space (SF)	7,990	7,990	7,990	7,990	7,990	7,990
Net Lot Area	125,180	125,180	125,180	125,180	125,180	125,180
Total Gross Square Feet Including Bonus	66,585	166,463	233,048	299,633	332,925	388,856
Total Base Gross Square Feet	66,585	166,463	233,048	299,633	332,925	388,856
Bonus Density for Workforce Units	-	-	-	-	-	-
Net Base Building Square Feet	56,597	141,493	198,090	254,688	282,986	330,528
Residential Gross Leaseable Area	29,967	88,223	144,820	201,418	227,716	275,258
Number of Residential Units	32	95	156	217	245	296
Number of Market & MPDU Units	32	88	144	200	226	273
Average Net Square Feet per Unit	936	929	928	928	929	930
MPDUs	4	11	18	25	29	35
Workforce Housing Units	-	7	12	17	19	23
Retail Gross Leaseable Area (0.0-0.4 FAR)	26,630	53,270	53,270	53,270	53,270	53,270
Office Gross Leaseable Area	-	-	-	-	-	-
Care Center Square Feet	-	-	-	-	2,000	2,000
Residential Parking Spaces (1)	33	90	148	205	231	279
Office Parking Spaces	-	-	-	-	-	-
Retail Parking Spaces (2)	93	186	186	186	186	186
Care Center Parking Spaces	-	-	-	-	6	6
Less Spaces Replaced by Shared Car Spaces	(7)	(7)	(14)	(14)	(14)	(14)
Total Parking Spaces	119	269	320	377	409	457
<b>Sales &amp; Operations</b>						
Market Sale Price per Square Foot	\$450	\$475	\$475	\$475	\$475	\$475
MPDU Sale Price per Unit	\$203,300	\$203,300	\$203,300	\$203,300	\$223,300	\$223,300
Workforce Sale Price per Unit	\$298,400	\$298,400	\$298,400	\$298,400	\$298,400	\$298,400
Cost of Sale	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
Condo Parking Sale Price	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000
<b>Net Sales Proceeds</b>	<b>\$13,092,500</b>	<b>\$39,616,300</b>	<b>\$65,005,100</b>	<b>\$90,356,800</b>	<b>\$102,387,800</b>	<b>\$123,699,400</b>



Table E-1. Land Value Benefits Associated with CR Zoning Incentive Density (Continued)

Site #2 - Nicholson Ln. at Nebel St. (NW)

Incentive Density Factor	Standard	Transit Incentive	Community Connectivity Incentive	WFHU Incentive	Care Center Incentive	LEED Gold Incentive
Office Rent per SF (full service)	\$38	\$42	\$42	\$42	\$42	\$42
Office Operating Expenses per SF	\$9	\$9	\$9	\$9	\$9	\$9
Retail Rent per SF (triple net)	\$45	\$45	\$45	\$45	\$45	\$45
Commercial Occupancy Rate	95%	95%	95%	95%	95%	95%
Care Center Rent (triple net)	\$10	\$10	\$10	\$10	\$10	\$10
Monthly Office Parking Rate	\$100	\$100	\$100	\$100	\$100	\$100
Retail Average Daily Parking Fees (3)	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00
<b>Net Commercial Operating Income</b>	<b>\$1,227,200</b>	<b>\$2,462,800</b>	<b>\$2,454,800</b>	<b>\$2,454,800</b>	<b>\$2,454,800</b>	<b>\$2,474,800</b>
<b>Costs</b>						
Site Improvement Costs	\$532,700	\$532,700	\$532,700	\$532,700	\$532,700	\$532,700
Public Use Space Costs	\$305,600	\$305,600	\$305,600	\$305,600	\$305,600	\$305,600
Building Hard Costs (4)	\$8,656,100	\$21,640,100	\$30,296,200	\$38,952,200	\$44,707,100	\$58,639,500
Amenity Costs	\$0	\$0	\$0	\$0	\$0	\$0
Parking Hard Costs	\$321,300	\$8,661,800	\$10,304,000	\$12,139,400	\$13,169,800	\$14,715,400
Development Approval Process (months)	12	12	12	12	12	12
Construction Period (months)	24	24	24	24	24	24
Construction Financing (fees & interest)	\$853,600	\$2,583,000	\$3,357,600	\$4,146,900	\$4,663,300	\$5,827,600
Other Soft Costs (excluding exactions)	\$2,453,900	\$7,785,100	\$10,359,600	\$12,982,500	\$14,678,800	\$18,548,300
Tenant Improvements	\$1,997,300	\$3,995,300	\$3,995,300	\$3,995,300	\$4,095,300	\$4,095,300
Development Return (% of Net Condo Revenues)	15%	15%	15%	15%	15%	15%
Exactions	\$565,100	\$1,075,100	\$1,443,300	\$1,811,500	\$1,976,800	\$2,284,900
<b>Total Non-Land Development Costs</b>	<b>\$15,690,600</b>	<b>\$46,578,700</b>	<b>\$60,594,300</b>	<b>\$74,866,100</b>	<b>\$84,129,400</b>	<b>\$104,949,300</b>
<b>Residual Land Value Analysis</b>						
Net Operating Income	\$1,227,200	\$2,462,800	\$2,454,800	\$2,454,800	\$2,454,800	\$2,474,800
Sales Revenue + Commercial Capitalized Value	\$29,455,200	\$72,453,600	\$97,735,800	\$123,087,500	\$135,118,500	\$156,696,700
Less Non-Land Devel. Costs & Return	\$17,654,500	\$52,521,100	\$70,345,100	\$88,419,600	\$99,487,600	\$123,504,200
<b>Land Residual Value</b>	<b>\$11,800,700</b>	<b>\$19,932,500</b>	<b>\$27,390,700</b>	<b>\$34,667,900</b>	<b>\$35,630,900</b>	<b>\$33,192,500</b>
Land Value per Site SF	\$89	\$150	\$206	\$260	\$268	\$249
Land Value per FAR SF	\$177	\$120	\$118	\$116	\$107	\$85

Notes: (1) Assumes site location within 1,600 feet of a transit station. Above-ground structure. Assumes 35 percent one-bedroom units and 65 percent two-bedroom units.  
 (2) Assumes 20 percent restaurant and 80 percent general retail. Adjusted for shared use.

(3) Retail parking revenues calculated at \$1,000 per hour with an average stay of two hours and a daily occupancy of 1.5 per space.

(4) Includes incremental costs for workforce housing, care center and LEED certification as appropriate.

Sources: Partners for Economic Solutions, 2009.

