Name: Michael Stopnicki **ID#** [redacted]

- Period of analysis is 25 years effective the put-in-use rule
- Land Costs: $2,800,000
- Demolition costs $200,000
- Land with Existing building purchased 8 months before demolition starts and financed at 6.05% per annum, compounded weekly. *52 weeks per annum*
- Existing building: $300,000
- Construction Costs:
  - Hard Costs $5,600,000
  - Soft Costs $3,200,000

  } 8.8m
- Demolition period: 1 month
- Construction period: 7 months (includes demolition time)
- Demolition costs financed at 5.25% per annum, compounded quarterly. 65% of demolition costs is paid when demolition starts, and the balance (35%) is paid when demolition is completed.
- Construction costs financed at 5.85% per annum, compounded monthly. 45% of construction costs is paid when construction starts, and the balance (55%) is paid when construction is completed.
- *Assume Ending balance of building = 28% of building costs at put-in-use* = 2,558,383
- Land costs at put-in-use appreciates based on inflation rate
- Building sold for 25% above building costs at put-in-use
- Inflation rate per annum: 2.05%
- Taxable capital gains: 50%
- Tax rate: 40%

ASSUMPTIONS:

- ***Financing costs of Land transferred to Building***
- ***Demolition costs + financing costs transferred to Land***
- ***Existing Building + financing costs transferred to Land***

5

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COMPLETE THE TABLES BELOW

Total Costs of Project @ piu	$ 12,466,500

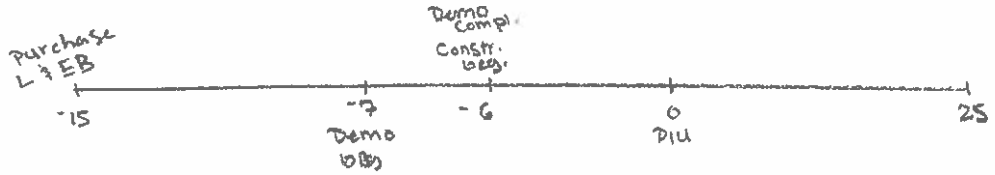
Selling price of Land	$ 5,529,600
Land costs at put-in-use	$ 3,329,419
Capital gains	$ 2,200,181
Taxable capital gains	$ 1,100,090
Taxes payable	$ 440,036
CFAT Sale of land (Year 25)	$ 5,089,564

CFAT = Cash Flows After Taxes

Selling Price of Building	$ 11,421,351
Capital gains tax	$ 456,854
Recapture tax	$ 2,631,479
CFAT of building (Year 25)	$ 8,333,018

$$EAR = \left[1 + \frac{NOM}{m}\right]^{m} - 1$$

$$FV = (1+r)^{n} * PV$$



TCOP

LC + FC
Nom = 6.05%
comp = 52

$2.8m\left(1+\frac{6.05\%}{52}\right)^{\left(\frac{12}{15}=\frac{52}{x}\right)}$ (65 weeks) $= \boxed{3,019,830}$

EB + FC
Nom = 6.05%
comp = 52

$300K(\ \ )^{(11)} = \$\boxed{323,553}$

DC + FC
Nom = 5.25%
comp = 4

$(65\% \times 200K)\left(1+\frac{5.25\%}{4}\right)^{\left(\frac{4}{x}=\frac{12}{7}\right)}$ (2.33) $= \$134,016$

$(35\% \times 200K)\left(1+\frac{5.25\%}{4}\right)^{2} = \$71,850$

130K, 70K

$\$\boxed{205,866}$

CC + FC
Nom = 5.85%
comp = 12

$(45\% \times 8.8m)\left(1+\frac{5.85}{12}\right)^{6} = \$4,097,251$ (3.96m)

$(55\% \times 8.8m)(\ \ )^{0} = \$4,840,000$ (4.84m; $(\ \ )^{0} = 1$)

$\$\boxed{8,917,251}$

FC of Land = 3,019,830 − 2,800,000 = 219,830

Bldg (CC+FC) + FC of land = $ 9,137,081

LC + (EB+FC) + (DC+FC) = $ 3,329,419

TCOP @ PIU = $\boxed{12,466,500}$

CFAT Sale of land yr 25

S price Land $3,329,419(1+2.05\%)^{25}$ = 5,529,600
− Land @ PIU = 3,329,419
= Cap. Gain = $ 2,200,181

taxable CG = 50%
taxes payable = 40%
= 440,000

CFAT Land yr 25 (sp − taxes) = $\boxed{5,089,563}$

CFAT Sale of Bldg yr 25

S Price Bldg 9,137,081 (125%) = 11,421,351
− Bldg @ PIU = 9,137,081
Cap. Gain = 2,284,270

Cap Gain tax (50% × 40%) = 456,854

recapture tax 40%
(beg bal PIU − End Bal yr 25)
9,137,081 − 2,558,383 (40%) = 2,631,479
(28% · 9,137,081)
6,578,698 × 40%

CFAT Bldg yr 25 (sp − taxes) = $\boxed{8,333,017}$
3,088,333

Name: Patrick Bedyl **ID#** 6

- Period of analysis is 25 years effective the put-in-use rule
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- Building sold for 25% above building costs at put-in-use
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- Taxable capital gains: 50%
- Tax rate: 40%

ASSUMPTIONS:

- ***Financing costs of Land transferred to Building***
- ***Demolition costs + financing costs transferred to Land***
- ***Existing Building + financing costs transferred to Land***

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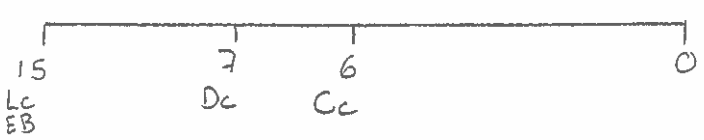
Lc = 2 800 000
EB = 300 000
Dc = 200 000
Cc = 8 800 000



$Lc+Fc = 2\,800\,000\left(1+\frac{5.25\%}{52}\right)^{(7/12\cdot 52)}$

$= 2\,989\,814$

$EB+Fc = 300\,000\left(1+\frac{5.25\%}{52}\right)^{(5/12\cdot 52)}$

$= 320\,337$

$Dc+Fc = [200\,000\cdot(65\%)]\cdot\left(1+\frac{5.85\%}{4}\right)^{7/3} = 134\,480$

$[200\,000\cdot(35\%)]\cdot\left(1+\frac{5.85\%}{4}\right)^{7/3} = 72\,062$

$206\,542$

$Cc+Fc = [8\,800\,000\cdot(45\%)]\cdot\left(1+\frac{6.05\%}{12}\right)^{6} = 4\,081\,310$

$[8\,800\,000\cdot(55\%)] = 4\,840\,000$

$8\,921\,310$

$Lc+Fc = 2\,989\,814$

$EB+Fc = 320\,337$

$Dc+Fc = 206\,542$

$Cc+Fc = 8\,921\,310$

$Lc+(EB+Fc)+(Dc+Fc) = 3\,326\,879$

$Cc+Fc+(Fc) = 9\,111\,124$

COMPLETE THE TABLES BELOW

Total Costs of Project @ piu	$ 12 438 003

Selling price of Land	$ 5 525 381
Land costs at put-in-use	$ 3 326 879
Capital gains	$ 2 198 502
Taxable capital gains 50%	$ 1 099 251
Taxes payable 40%	$ 439 700
CFAT Sale of land (Year 25)	$ 5 085 681

CFAT = Cash Flows After Taxes

Selling Price of Building	$ 11 388 905
Capital gains tax	$ 455 556
Recapture tax	$ 2 624 004
CFAT of building (Year 25)	$ 8 309 345

$3\,326\,879 \quad (1+2.05\%)^{25} = 5\,525\,381$

$5\,525\,381 - 3\,326\,879 = 2\,198\,502$

$2\,198\,502 \times 50\% = 1\,099\,251$

$1\,099\,251 \times 40\% = 439\,700$

$9\,111\,124 \cdot 125\% = 11\,388\,905$

$11\,388\,905 - 9\,111\,124 = 2\,277\,781$

$2\,277\,781 \times 50\% = 1\,138\,891$

$1\,138\,891 \times 40\% = 455\,556$

$9\,111\,124 \cdot 28\% = 2\,551\,115$ (Ending Balance)

$9\,111\,124 - 2\,551\,115 = 6\,560\,009$

$6\,560\,009 \times 40\% = 2\,624\,004$

$$EAR = \left[1 + \frac{NOM}{m}\right]^{m} - 1$$

$$FV = (1+r)^{n} * PV$$

Name: Shant Tchaghasbanian ✓ **ID#** [illegible]

- Period of analysis is 25 years effective the put-in-use rule
- Land Costs: $2,800,000
- Demolition costs $200,000
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- Land costs at put-in-use appreciates based on inflation rate
- Building sold for 25% above building costs at put-in-use
- Inflation rate per annum: 2.05%
- Taxable capital gains: 50%
- Tax rate: 40%

ASSUMPTIONS:

- ***Financing costs of Land transferred to Building***
- ***Demolition costs + financing costs transferred to Land***
- ***Existing Building + financing costs transferred to Land***

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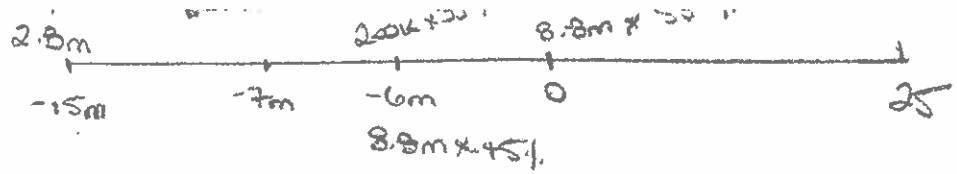

EFF Land: $\left[1 + \frac{0.0585}{52}\right]^{52} - 1 = 0.060210123$

EFF Demol.: $\left[1 + \frac{0.0605}{4}\right]^{4} - 1 = 0.061886486$

EFF Constr: $\left[1 + \frac{0.0525}{12}\right]^{12} - 1 = 0.053781886$

-15m: $2.8m\,(1+0.060210123)^{15/12} =$ **3,012,298.22 ₪**

-15m: $300,000\,(1+0.060210123)^{15/12} =$ **322,746.24 ₪**

-7m: $200,000 \times 0.65\,(1+0.061886486)^{7/12} =$ 134,634.26 ₪

-6m: $200,000 \times 0.35\,(1+0.061886486)^{6/12} =$ 72,133.51 ₪

$=$ **206,767.77 ₪** } +

-6m: $8.8m \times 0.45\,(1+0.053781886)^{6/12} =$ 4,065,093.61 ₪

0m: $8.8m \times 0.55 =$ 4,840,000 ₪

$=$ **8,905,093.61 ₪** } +

Total Cost of project = 12,446,905.84 ₪

Assume:

3,012,298.22 - 212,298.22 + 322,746.24 + 206,767.77 = 3,329,514.01 ₪

322,746 - 322,746 = ∅

206,767.77 - 206,767.77 = ∅

8,905,093.61 + 212,298.22 = 9,117,391.83 ₪

12,446,905.84 ₪ Total.

COMPLETE THE TABLES BELOW

Total Costs of Project @ piu	$ 12,446,905.84

Selling price of Land	$5,529,757.33
Land costs at put-in-use	$ 3,329,514.01
Capital gains	$ 2,200,243.32
Taxable capital gains	$ 1,100,121.66
Taxes payable	$ 440,048.66
CFAT Sale of land (Year 25)	$ 5,089,708.67

CFAT = Cash Flows After Taxes

Selling Price of Building	$ 11,396,739.79
Capital gains tax 455870	$ 1,459,673.98
Recapture tax	$ 2,625,808.85
CFAT of building (Year 25)	$ 8,315,061.35

$$EAR = \left[1 + \frac{NOM}{m}\right]^{m} - 1$$

$$FV = (1+r)^{n} * PV$$

CFAT Sale of Land at Year 25

Selling Price of Land: $3,329,514.01 (1 + 0.0205)^{25} = \boxed{5,529,757.33}$ ฿

Capital gains: $5,529,757.33 - 3,329,514.01 = \boxed{2,200,243.32}$ ฿

Tax. Capital gains: $2,200,243.32 \times 50\%$

$= \boxed{1,100,121.66}$ ฿

Tax Rate: $1,100,121.66 \times 40\%$

$= \boxed{440,048.66}$ ฿

∴ CFAT Land $= 5,529,757.33 - 440,048.66 = \underline{5,089,708.67}$ ฿

CFAT Sale of Building at Year 25

Selling Price of Building: $9,117,391.83 (1 + 0.25) = \boxed{11,396,739.79}$ ฿

Capital gains: $11,396,739.79 - 9,117,391.83 = 2,279,347.96$ ฿

Tax cap. gains. $2,279,347.96 \times 50\% = \boxed{1,139,673.98}$ ฿

Tax Rate: $1,139,673.98 \times 40\% = 455,869.59$ ฿

Recapture Tax

$9,117,391.83 - 9,117,391.83(28\%) = 6,564,522.12$ ฿

Tax rate: $6,564,522.12 \times 40\% = \boxed{2,625,808.85}$ ฿

∴ CFAT Building $= 11,396,739.79 - 455,869.59 - 2,625,808.85$

$= \underline{8,315,061.35}$ ฿

Name: HIBA Dudiass ✓ **ID#** 6[illegible]

- **Period of analysis is 25 years effective the put-in-use rule**
- **Land Costs: $2,800,000**
- **Demolition costs $200,000**
- **Land with Existing building purchased 8 months before demolition starts and financed at 6.50% per annum, compounded weekly.** ***52 weeks per annum***
- **Existing building: $300,000**
- **Construction Costs:**
  - **Hard Costs $5,600,000**
  - **Soft Costs $3,200,000**
- **Demolition period: 1 month**
- **Construction period: 7 months (includes demolition time)**
- **Demolition costs financed at 5.05% per annum, compounded quarterly. 65% of demolition costs is paid when demolition starts, and the balance (35%) is paid when demolition is completed.**
- **Construction costs financed at 5.75% per annum, compounded monthly. 45% of construction costs is paid when construction starts, and the balance (55%) is paid when construction is completed.**
- ***Assume Ending balance of building = 28% of building costs at put-in-use***
- **Land costs at put-in-use appreciates based on inflation rate**
- **Building sold for 25% above building costs at put-in-use**
- **Inflation rate per annum: 2.05%**
- **Taxable capital gains: 50%**
- **Tax rate: 40%**

ASSUMPTIONS:

- ***Financing costs of Land transferred to Building***
- ***Demolition costs + financing costs transferred to Land***
- ***Existing Building + financing costs transferred to Land***

5

Good

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COMPLETE THE TABLES BELOW

Total Costs of Project @ piu	$ 12 483 085

Selling price of Land	$ 5 532 254
Land costs at put-in-use	$ 3 331 017
Capital gains	$ 2 201 237
Taxable capital gains 50%	$ 1 100 618
Taxes payable 40%	$ 440 247
CFAT Sale of land (Year 25)	$ 5 092 007

CFAT = Cash Flows After Taxes

Selling Price of Building	$ 11 440 085
Capital gains tax	$ 457 603
Recapture tax	$ 2 635 796
CFAT of building (Year 25)	$ 8 346 686

SP Land 3 331 017 $(1+2.05)^{25}$ 5 532 254

SP Building 9 152 068 (1 + 25%) 11 440 085

Building at PiU. 9 152 068

2 288 017

Capital Gains 1 144 009

Capital gains taxes 50% 457 603

taxes payable 40%. 10 982 482.

recapture taxes $[9\,152\,068 - [28\% \times 9\,152\,068]] \times 40\% = 2\,635\,796.$

$$EAR = \left[1 + \frac{NOM}{m}\right]^{m} - 1$$

$$FV = (1+r)^{n} * PV$$

-15 mn. -7 mn -6 mn.

C = 2.8M $DC_1 = 200 \times 65\%$ $CC_1 = 8{,}800 \times 45\%$ 0

B = 300 mn $DC_2 = 200 \times 35\%$ $CC_2 = 8{,}800 \times 55\%$

Land => 6,50% -> weekly

$2.8M \left(1 + \frac{6.50\%}{52}\right)^{\frac{15}{12} \times 52} - 1 = 236\,845 \Rightarrow$ 3 036 845

EB => 6,50% => weekly

$300\,000 \left(\frac{1 + 6{,}50\%}{52}\right)^{\frac{15}{12} \times 52} - 1 =$ => 325 376

DC => 5,05% => quarterly

DC_1 $200\,000 \times 65\% \left(1 + \frac{5{,}05}{4}\right)^{\frac{7}{3}} - 1 \Rightarrow$ 133 862

DC_2 $200\,000 \times 35\% \left(1 + \frac{5{,}05}{4}\right)^{\frac{5}{3}} - 1 \Rightarrow$ 71 779

205 641

CC => 5,75% => monthly

CC_1 - $8\,800\,000 \times 45\% \times \left(1 + \frac{5{,}75\%}{12}\right)^{6} - 1 \Rightarrow 4\,075\,223$

CC_2 $8\,800\,000 \times 55\% \Rightarrow 4\,840\,000$

8 915 223

12 483 085

LC => 3 036 845 - 236 845 + 325 376 + 205 641 = 3 331 017

DC => ϕ (205 641 - 205 641).

EB => ϕ (325 376 - 325 376)

CC = 8915 223 + 236 845 = 9 152 068