

## **RENTAL APARTMENT BUILDING**

### **USING THE REPLACEMENT RESERVE FOLDER. Canadian Example**

#### **INTRODUCTION**

Mortgage insurance agencies, conventional lenders and lenders following HUD guidelines often require that Replacement Reserves be established and maintained in an interest-bearing account to aid in funding extraordinary maintenance and repair and replacement of capital items such as the roof.

The contract will restrict how the money in the account will be used and will limit the use to major repairs and replacements and restrict the owner from withdrawing funds from the account for personal use.

Prudent investors may also maintain their own Replacement Reserve Accounts to ensure that they have funds available for major repairs and replacements.

This means that a buyer of an income property where the lender or insurer requires funded Replacement Reserves must make sure that the acquisition costs will include the allocated amount in the Replacement Reserve account. For example, if there is to be \$430,000 in the Replacement Reserve Account the acquisition costs will be increased by \$430,000 to fund the Replacement Reserve Account.

This Investit example illustrates the use of the Replacement Reserve folder using the Investit Example "Rental Apartment Building Yearly" and assumes you are familiar with Investit Pro, how to use the Projection Wizard etc., and focuses on using the "Replacement Reserve Folder"

This practice example consists of three sections;

1. The input information for the project related to the Replacement Reserves
2. Instructions for entering the data
3. Sample reports and discussion

#### **PROJECT INFO. Folder**

Same as the Investit Example "Rental Apartment Building Yearly" except:

Change the Description from

"Investment Analysis Rental Units Example" to;

"Example with Replacement Reserves"

#### **INVESTOR Folder**

No change. Same as the Investit Example "Rental Apartment Building Yearly"

#### **INVESTMENT Folder**

Same as the Investit Example "Rental Apartment Building Yearly" with the following addition;

Roof Replacement Year 3: \$250,000  
CCA Claim Setting: Building

### **REPLACEMENT RESERVES Folder**

Opening Balance: \$300,000.

(This is the amount in the Replacement Reserve Account on the Analysis Start Date)

Interest Rate: 1.50%

### **Amounts added to the Replacement Reserve Account**

Annual Contributions: Year 1 \$24,000 increasing at 3.00% compounding per year

### **Amounts withdrawn from the Replacement Reserve Account**

Roof Replacement: Year 3 Jan: <\$250,000>

Replace Appliances. 10 sets at <\$1,500> per set for a total of<\$15,000>

**Note:**       **Additions** to the Replacement Reserve Account are entered as a **positive value**  
              **Withdrawals** from the Replacement reserve Account are entered as a **negative value**

### **EXPENSES Folder**

Add the following:

Replace Appliances Year 4 -- \$15,000

The following Folders are the same as the Investit Example "Rental Apartment Building Yearly"

**REVENUE Folder**

**VACANCY Folder**

**FINANCING Folder**

**SALE Folder**

## INSTRUCTIONS FOR ENTERING THE REPLACEMENT RESERVE INFORMATION

### Selecting the Investit Example

The first step is to open Investor Pro and open the Investit Example “Rental Apartment Building. Using Replacement Reserves”

The screenshot shows the 'Investit Examples' tab selected. In the 'Select Project to Open' list, the 'Investment Analysis Yearly Projections' section is expanded, and 'Rental Apartment Building Yearly' is highlighted. An arrow points to this option with the label 'Select'. The 'Description' field on the right shows 'Investment Analysis Yearly Projections section.'

### PROJECT INFO Folder

Change the Description to “Example with Replacement Reserves”

The screenshot shows the 'Project Info' folder. The 'Description' field is set to 'Example with Replacement Reserves'. The 'Total Purchase Price' section shows a purchase price of \$3,500,000 and acquisition costs of 2.00%, resulting in a total purchase price of \$3,570,000. The 'Analysis Time Period' is set to 10 years. The 'Entry Information' section shows 'Enter Revenue and Expenses' set to 'Yearly'. The 'Calculate Financial Measures based on' section shows 'Potential Gross Income' selected. The 'Building' section shows 'Building Area' as 38,000 Sq. Ft. and 'Rental Units' as 40. The 'Land' section shows 'Land Area' as 46,000 Sq. Ft. and 'Frontage' as 320 Ft.

**INVESTOR Folder**

No changes

**INVESTMENT Folder**

1. Add a row
2. Enter the Description "Roof Replacement"
3. Enter Amount "\$250,000"
4. Select Year 3
5. Select CCA Class "Building"

Project Info.	Investor	Investment	Replacement Reserve	Expenses	Revenue	Vacancy	Financing	Sale
CCA Claim Option: Claim CCA up to Taxable Income								
<b>Purchase Price and Capital Improvements</b>								
Inflate				CCA Claim Setting				
Description	Amount	Year	Month	CCA Class	CCA Rate	First Year	Claim CCA in Last Year	
Land	\$ 1,000,000	Year 1	Jan	Land				
Building	\$ 2,570,000	Year 1	Jan	Building	4.00%	50.00%	<input checked="" type="checkbox"/>	
Furniture & Equipment	\$ 20,000	Year 1	Jan	Furn/Equip	20.00%	50.00%	<input checked="" type="checkbox"/>	
Roof Replacement	\$ 250,000	Year 3	Jan	Building	4.00%	50.00%	<input checked="" type="checkbox"/>	
Add ↑	Enter ↑	Select ↑		Select ↑				

## REPLACEMENT RESERVE Folder

Interest Rate: 1.50%

Existing Replacement Reserve: \$300,000. (The balance in the account on the Analysis Start Date)

### Amounts added to the Replacement Reserve Account

Annual Contribution: Year 1 \$24,000 increasing at 3.00% per year compounding

### Amount withdrawn from the Replacement Reserve Account. Enter as negative value

Roof Replacement: Year 3 Jan: <\$250,000>

Enter as a negative number because \$250,000 is being withdrawn from the Replacement Reserve account

Replace Appliances 10 Sets at <\$1,500> per set

### Entries

1. Enter the Interest Rate: 1.50%
2. Enter the Existing Replacement Reserve on Analysis Start Date: \$300,000
3. Add two more rows and enter the Descriptions
4. For the "Replace Appliances" row select the Entry Choice "Price per Unit and Quantity"

Project Info.	Investor	Investment	Replacement Reserve	Expenses	Revenue	Vacancy	Financing	Sale
Interest Rate: 1.500%			Existing Replacement Reserve: \$ 300,000					
<b>Replacement Reserve</b>								
Description	Entry Choice	Year 1 Jan...	Year 2 Jan...	Year 3 Jan...	Year 4 Jan...	Year 5 Jan...	Year 6 Jan...	Year 7 Jan...
Annual Contributions	Add or Subtract (-) Replacement Reserve	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Roof Replacement	Add or Subtract (-) Replacement Reserve	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Replace Appliances	Price per Unit and Quantity	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Quantity	0	0	0	0	0	0	0

Add Two rows and Descriptions      Select Entry Choice "Price per Unit & Quantity"

5. Select Row "Annual Contributions", click on the Projection Wizard button and complete the Projection Wizard as shown below;

Project Info. Investor Investment **Replacement Reserve** Expenses Revenue Vacancy Financing Sale

Interest Rate  Existing Replacement Reserve:

**Replacement Reserve**

Description	Entry Choice	Year 1 Jan...	Year 2 Jan...	Year 3 Jan...	Year 4 Jan...	Year 5 Jan...
<b>Contributions</b>	Add or Subtract (-) Replacement Reserve	\$ 24,000	\$ 24,720	\$ 25,462	\$ 26,225	\$ 27,012
Roof Replacement	Add or Subtract (-) Replacement Reserve	\$ 0	\$ 0	-\$ 250,000	\$ 0	\$ 0
Replace Appliances	Price per Unit and Quantity	\$ 0	\$ 0	\$ 0	-\$ 1,500	\$ 0
	Quantity	0	0	0	10	0

Select first row

Add Insert Delete

Projection Wizard Projection Description

**Projection Wizard**

**Entry Information**

Description: Annual Contributions

Entry Choice: Add or Subtract (-) Replacement Reserve

**Projection**

Entry	Project Entry Using...	Increase	Starting Year	To End	Yrs	Cont. Proj.
\$ 24,000	Annual Compounding	3.00%	Year 1	<input checked="" type="checkbox"/>	10	

Complete the Projection Wizard and click OK

Select Enter Check

6. Select the second row "Roof Replacement" and enter -\$250,000 in Year 3
7. Select the third row "Replace Appliances" and enter -\$1,500 in Year 4  
Quantity row: 10

Project Info. Investor Investment **Replacement Reserve** Expenses Revenue

Interest Rate  Existing Replacement Reserve:

**Replacement Reserve**

Description	Entry Choice	Year 1 Jan...	Year 2 Jan...	Year 3 Jan...	Year 4 Jan...	Year 5 Jan...
Annual Contributions	Add or Subtract (-) Replacement Reserve	\$ 24,000	\$ 24,720	\$ 25,462	\$ 26,225	\$ 27,012
Roof Replacement	Add or Subtract (-) Replacement Reserve	\$ 0	\$ 0	-\$ 250,000	\$ 0	\$ 0
Replace Appliances	Price per Unit and Quantity	\$ 0	\$ 0	\$ 0	-\$ 1,500	\$ 0
	Quantity	0	0	0	10	0

Enter Enter

**EXPENSES Folder**

Add a row and;

1. Enter the Description " Replace Appliances"
2. Selected the Entry Choice 'Amount'
3. Uncheck the "NOI" box
4. Enter \$15,000 in Year 4

**Important Note:**


Because the replacement of the appliances for \$15,000 is a non recurring expense the "NOI" column is unchecked which means that the \$15,000 won't be included in the Net Operating Income but will be included in calculating the Net Income.

Each year the sale price is calculated using the Net Operating Income for the year and a Cap Rate of 7.00%. If the replacement of the appliances for \$15,000 is included in the Net Operating Income in year 4 the sale value in year 4 will drop in value by  $\$15,000 / 7.00\%$  which is \$214,286.

Non recurring expenses should not be included in the Net Operating Income when using Cap Rates to determine the value of the property. Below is the completed Expenses folder.

Project Info.	Investor	Investment	Replacement Reserve	Expenses	Revenue	Va		
Expenses								
Description	Entry Choice	Qty	NOI	Year 1 Jan...	Year 2 Jan...	Year 3 Jan...	Year 4 Jan...	Year 5 Jan...
Property Taxes	\$ per Yr	—	<input checked="" type="checkbox"/>	\$ 90,000	\$ 93,600	\$ 97,344	\$ 100,264	\$ 103,272
Insurance	\$ per Yr	—	<input checked="" type="checkbox"/>	\$ 45,000	\$ 47,250	\$ 49,613	\$ 52,093	\$ 54,698
Maintenance	\$ per Unit x Total No. of Units per Yr	40	<input checked="" type="checkbox"/>	\$ 400	\$ 416	\$ 433	\$ 450	\$ 468
Resident Caretaker	\$ per Mo	—	<input checked="" type="checkbox"/>	\$ 3,000	\$ 3,120	\$ 3,245	\$ 3,375	\$ 3,510
Property Manager	% of Effective Gross Income	—	<input checked="" type="checkbox"/>	4.00%	4.00%	4.00%	4.00%	4.00%
Other Expenses	% of Potential Gross Income	—	<input checked="" type="checkbox"/>	3.00%	3.00%	3.00%	3.00%	3.00%
Replace Appliances	Amount	—	<input type="checkbox"/>	\$ 0	\$ 0	\$ 0	\$ 15,000	\$ 0
Add row and enter Description		Select	Uncheck	Enter				

Replacing the appliances for \$15,000 is excluded from the Net Operating Income calculation.

	<b>Income &amp; Expense Statement Yearly</b> Parklane Place 40 Unit Apartment Building Example with Replacement Reserves										October 18, 2010
	Rental Apartment. Using Replacement Reserves										Investor Pro
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
<b>REVENUE</b>											
One bedroom Units	270,000	278,100	286,500	294,900	303,900	312,900	322,500	332,100	342,000	352,200	363,000
Two bedroom Units	198,000	205,920	214,200	222,660	231,660	240,840	250,560	260,640	270,900	281,880	293,040
Laundry	7,200	7,680	8,160	8,160	8,640	9,120	9,600	10,080	10,560	11,040	11,520
Parking	24,000	25,200	26,460	27,786	29,172	30,630	32,160	33,768	35,460	37,230	39,096
<b>Potential Gross Income</b>	<b>499,200</b>	<b>516,900</b>	<b>535,320</b>	<b>553,506</b>	<b>573,372</b>	<b>593,490</b>	<b>614,820</b>	<b>636,588</b>	<b>658,920</b>	<b>682,350</b>	<b>706,656</b>
Less: Vacancy & Credit Loss Allowance	14,256	14,751	15,266	15,772	16,326	16,886	17,480	18,085	18,704	19,354	20,027
<b>Effective Gross Income</b>	<b>484,944</b>	<b>502,149</b>	<b>520,054</b>	<b>537,734</b>	<b>557,046</b>	<b>576,604</b>	<b>597,340</b>	<b>618,503</b>	<b>640,216</b>	<b>662,996</b>	<b>686,629</b>
<b>Operating Expenses</b>											
Property Taxes	90,000	93,600	97,344	100,264	103,272	106,370	109,562	112,848	116,234	119,721	123,312
Insurance	45,000	47,250	49,613	52,093	54,698	57,433	60,304	63,320	66,485	69,810	73,300
Maintenance	16,000	16,640	17,320	18,000	18,720	19,480	20,240	21,040	21,880	22,760	23,680
Resident Caretaker	36,000	37,440	38,940	40,500	42,120	43,800	45,552	47,376	49,272	51,240	53,292
Property Manager	19,398	20,086	20,802	21,509	22,282	23,064	23,894	24,740	25,609	26,520	27,465
Other Expenses	14,976	15,507	16,060	16,605	17,201	17,805	18,445	19,098	19,768	20,471	21,200
	221,374	230,523	240,079	248,972	258,293	267,952	277,996	288,422	299,247	310,521	322,249
<b>Net Operating Income</b>	<b>263,570</b>	<b>271,626</b>	<b>279,975</b>	<b>288,763</b>	<b>298,753</b>	<b>308,652</b>	<b>319,344</b>	<b>330,082</b>	<b>340,969</b>	<b>352,475</b>	<b>364,380</b>
Less: Expense not included in NOI				15,000	-	-	-	-	-	-	-
Replace Appliances	-	-	-	15,000	-	-	-	-	-	-	-
<b>Net Income</b>	<b>263,570</b>	<b>271,626</b>	<b>279,975</b>	<b>273,763</b>	<b>298,753</b>	<b>308,652</b>	<b>319,344</b>	<b>330,082</b>	<b>340,969</b>	<b>352,475</b>	<b>364,380</b>
<b>Interest on Mltce Reserve Account</b>	<b>4,860</b>	<b>5,304</b>	<b>2,015</b>	<b>2,214</b>	<b>2,652</b>	<b>3,109</b>	<b>3,586</b>	<b>4,082</b>	<b>4,600</b>	<b>5,138</b>	<b>-</b>
<b>Income</b>	<b>268,430</b>	<b>276,930</b>	<b>281,991</b>	<b>275,977</b>	<b>301,405</b>	<b>311,762</b>	<b>322,930</b>	<b>334,164</b>	<b>345,569</b>	<b>357,613</b>	<b>364,380</b>

**REVENUE Folder**

No changes

**VACANCY Folder**

No vacancies to be entered

**FINANCING Folder**

No changes

**SALE Folder**

No changes

Save the completed project





## Using the Replacement Reserve Account. Important Comments

The Replacement Reserve Account is similar to a bank account and care has to be taken that the entries and resulting cash flows are correct. This is best illustrated using the example.

Care has to be taken in using Replacement Reserve Folder to ensure that the cash flows are correct which requires offsetting entries for capital expenditures or major repairs. This is best illustrated using the example.

### Annual Contribution

The annual amount contributed to the reserve account is \$24,000 increasing at 3.00% compounding. This entry is straight forward.

### Replacement of the Roof for \$250,000 in year 3.

Two offsetting entries are required when entering the roof replacement for \$250,000 in year 3;

1. Enter the Roof Replacement for <\$250,000> in the Replacement Reserve folder. The entry is negative because it's a withdrawal from the replacement reserve account.

Replacement Reserve		Year 1 Jan...	Year 2 Jan...	Year 3 Jan...	Year 4 Jan...	Year 5 Jan...
Contributions	Add or Subtract (-) Replacement Reserve	\$ 24,000	\$ 24,720	\$ 25,462	\$ 26,225	\$ 27,000
Roof Replacement	Add or Subtract (-) Replacement Reserve	\$ 0	\$ 0	-\$ 250,000	\$ 0	\$ 0
Replace Appliances	Price per Unit and Quantity	\$ 0	\$ 0	\$ 0	-\$ 1,500	\$ 0
	Quantity	0	0	0	10	0

2. Enter the Roof Replacement for \$250,000 in the Investment folder and set up the depreciation claim

Purchase Price and Capital Improvements		CCA Claim Setting					
Description	Amount	Year	Month	CCA Class	CCA Rate	First Year	Claim CCA in Last Year
Land	\$ 1,000,000	Year 1	Jan	Land			
Building	\$ 2,570,000	Year 1	Jan	Building	4.00%	50.00%	✓
Furniture & Equipment	\$ 20,000	Year 1	Jan	Furn/Equip	20.00%	50.00%	✓
Roof Replacement	\$ 250,000	Year 3	Jan	Building	4.00%	50.00%	✓

**Question.**

**Why is it necessary to set up the replacement of the roof for \$250,000 in both the Replacement Reserve Folder and the Investment folder?**

The objective of the Replacement Reserve Account is to build up funds to pay for future replacement of capital items and major repairs. In this example there is an opening balance of \$300,000 in the Replacement Reserve Account with funds are being added to the account every year. Funds added to the account have the effect of reducing the Internal Rate of Return (IRR) to the investor.

The roof replacement in Year 3 for \$250,000 is paid from the Replacement Reserve Account and requires no additional input of cash from the Investor and does not effect the before tax cash flow in year 3 as long as there is an offsetting entry for \$250,000 the Investment folder.

The \$250,000 from the Replacement Reserve Account is used to pay for the roof replacement and is entered in the Investment Folder.

From an investment perspective there are no funds required from the Investor to pay for the roof repair. It is simply an internal transfer of funds from the Replacement Reserve Account to the Investment folder. This can be seen in the Net Cash Flow report where the <\$250,000> Year 3 in the Investment column is offset by the \$250,000 reduction in the Replacement Reserve Account.

<b>Net Cash Flow (Before Tax)</b>									
Parklane Place 40 Unit Apartment Building									
Example with Replacement Reserves Rental Apartment. Using Replacement Reserves									
October 20, 2010 Investor Pro									
Year	Investment	Financing		Replacement Reserve Acct. Flow		Cash	Operating Cash Flow (Before Tax)	Sale Proceeds (Before Tax)	Net Cash Flow (Before Tax)
		Borrow	Paid Back	Additions	Reductions				
Year 1 Jan-Year 1 Dec	\$ (3,590,000)	\$ 2,000,000	-	\$ (24,000)	-	\$ 87,997	-	-	\$ (1,526,003)
Year 2 Jan-Year 2 Dec	-	-	-	(24,720)	-	96,053	-	-	71,333
Year 3 Jan-Year 3 Dec	→ (250,000) ←	-	-	(25,462)	250,000 ←	104,402	-	-	78,940
Year 4 Jan-Year 4 Dec	-	-	-	(26,225)	15,000	98,190	-	-	86,965
Year 5 Jan-Year 5 Dec	-	-	-	(27,012)	-	123,180	-	-	96,168
Year 6 Jan-Year 6 Dec	-	-	-	(27,823)	-	133,079	-	-	105,256
Year 7 Jan-Year 7 Dec	-	-	-	(28,657)	-	143,771	-	-	115,114
Year 8 Jan-Year 8 Dec	-	-	-	(29,517)	-	154,508	-	-	124,991
Year 9 Jan-Year 9 Dec	-	-	-	(30,402)	-	165,396	-	-	134,994
Year 10 Jan-Year 10 Dec	-	-	(1,589,449)	(31,315)	347,893	176,902	4,936,162	-	3,839,993
Total									\$ 3,127,750

Financial Returns (Before Tax) with Financing	
Internal Rate of Return (IRR)	12.71%
Net Present Value (NPV) at 13.00%	(\$ 35,973)
Modified Internal Rate of Return (MIRR)	11.14%
Short Term Financing Rate (Before Tax)	8.000%
Short Term Reinvestment Rate (Before Tax)	3.000%

**Balance in the Replacement Reserve Account when the building is sold. Includes accrued interest**

**Replacement of the Appliances. 10 sets at <\$1,500> per set for a total of <\$15,000>**

Two offsetting entries are required when entering the replacement of the appliances for \$15,000 in year 4:

1. Enter the "Replace Appliances" for <\$1,500> and the Quantity 10 in the Replacement Reserve Folder in year 4. The \$1,500 entry is negative because it's a withdrawal from the Replacement Reserve account.

Project Info.	Investor	Investment	Replacement Reserve	Expenses	Revenue	Vacancy	Financing	Sale
Interest Rate: 1.500% Existing Replacement Reserve: \$ 300,000								
Replacement Reserve								
Description	Entry Choice		Year 1 Jan...	Year 2 Jan...	Year 3 Jan...	Year 4 Jan...	Year 5 Jan...	Year 6 Jan...
Annual Contributions	Add or Subtract (-) Replacement Reserve	-	\$ 24,000	\$ 24,720	\$ 25,462	\$ 26,225		
Roof Replacement	Add or Subtract (-) Replacement Reserve	-	\$ 0	\$ 0	-\$ 250,000	\$ 0		
Replace Appliances	Price per Unit and Quantity	-	\$ 0	\$ 0	\$ 0	→ - \$ 1,500		
	Quantity		0	0	0	→ 10		

2. Enter the "Replace Appliances" for \$15,000 in the Expenses Folder.  
uncheck the "NOI" box. We don't want the replacement of the appliances included in the Net Operating Income because it is a non-recurring or extraordinary expense.

The "Expenses Folder" has been used instead of the "Investment Folder" because the partial replacement of the appliances can likely be expensed for tax purposes rather than capitalized.

**Offsetting entries. Transferring funds from the Replacement Reserve Account to the Expenses folder**

Project Info.	Investor	Investment	Replacement Reserve	Expenses	Revenue	Va		
Expenses								
Description	Entry Choice	Qty	NOI	Year 1 Jan...	Year 2 Jan...	Year 3 Jan...	Year 4 Jan...	Year 5 Jan...
Property Taxes	\$ per Yr	—	<input checked="" type="checkbox"/>	\$ 90,000	\$ 93,600	\$ 97,344	\$ 100,264	\$ 103,272
Insurance	\$ per Yr	—	<input checked="" type="checkbox"/>	\$ 45,000	\$ 47,250	\$ 49,613	\$ 52,093	\$ 54,689
Maintenance	\$ per Unit x Total No. of Units per Yr	40	<input checked="" type="checkbox"/>	\$ 400	\$ 416	\$ 433	\$ 450	\$ 468
Resident Caretaker	\$ per Mo	—	<input checked="" type="checkbox"/>	\$ 3,000	\$ 3,120	\$ 3,245	\$ 3,375	\$ 3,510
Property Manager	% of Effective Gross Income	—	<input checked="" type="checkbox"/>	4.00%	4.00%	4.00%	4.00%	4.00%
Other Expenses	% of Potential Gross Income	—	<input checked="" type="checkbox"/>	3.00%	3.00%	3.00%	3.00%	3.00%
Replace Appliances	Amount	—	<input type="checkbox"/>	\$ 0	\$ 0	\$ 0	\$ 15,000	\$ 0

Add row and enter Description

Select

Uncheck

Enter

**Question.**

**Why is it necessary to set up the replacement of the appliances for \$15,000 in both the Replacement Reserve Folder and the Expenses folder?**

The replacement of the appliances in Year 4 for \$15,000 is paid from the Replacement Reserve Account and requires no additional input of cash from the Investor.

The \$15,000 is used to pay for the replacement of the appliance and is entered as an expense in the Expenses folder. The partial replacement of the appliance would likely be expensed for tax purposes rather than capitalized and claimed through depreciation.

From an investment perspective there are no funds required from the investor to pay for the replacement of the appliances. It is simply an internal transfer of funds from the Replacement Reserve Account to the Expenses folder.


## **Replacement Reserve Folder. General Rules**

Care has to be taken when using the Replacement Reserve Folder to ensure that the cash flows and the calculation of the Internal Rate of Return (IRR) and Net Present Value are correct.

1. Contributions or additions to the Replacement Reserve Account are entered as a positive value
2. Withdrawals from the Replacement Reserve Account are entered as a negative value
3. Capitalized investments such as replacing a roof, which are funded from the Replacement Reserve account, require offsetting entries and is entered in both the
  - Replacement Reserve folder **AND**
  - The Investment folder with the appropriate depreciation method selected
4. Major repairs or replacements that can be expensed for tax purposes are entered in both the
  - Replacement Reserve folder **AND**
  - The Expenses folder. The "NOI" box unchecked so that the major repair, which is a non- recurring expenses, is not included in the Net Operating Income.
5. Withdrawals or payments to the Investor from the Replacement Reserve account can be made directly in the Replacement Reserve folder and don't involve offsetting entries.

## 6. Replacement Reserve. Interest calculations

The funds in the replacement Reserve account earn interest based on the interest rate entered in the Replacement Reserve Account. The interest calculations are shown in the Replacement Reserve Report.

		<b>Replacement Reserve Yearly</b> Parklane Place 40 Unit Apartment Building Example with Replacement Reserves								October 19, 2010 Investor Pro Rental Apartment. Using Replacement Reserves	
<b>Maintenance Reserve Accounts</b> Opening Balance: \$ 300,000 Interest Rate: 1.500% ←		<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>	<b>Year 7</b>	<b>Year 8</b>	<b>Year 9</b>	<b>Year 10</b>
Annual Contributions											
Additions to Mtce Reserves		24,000	24,720	25,462	26,225	27,012	27,823	28,657	29,517	30,402	31,315
Roof Replacement											
Additions to Mtce Reserves		-	-	(250,000)	-	-	-	-	-	-	-
Replace Appliances											
Price per Unit		-	-	-	(1,500)	-	-	-	-	-	-
Quantity		-	-	-	10	-	-	-	-	-	-
Additions to Mtce Reserves		-	-	-	(15,000)	-	-	-	-	-	-
<b>Replacement Reserve Summary</b>											
Balance, Beginning of Year		300,000	328,860	358,884	136,361	149,800	179,464	210,396	242,639	276,238	311,240
Additions to Mtce Reserves		24,000	24,720	(224,536)	11,225	27,012	27,823	28,657	29,517	30,402	31,315
Balance before Interest		324,000	353,580	134,346	147,586	176,812	207,287	239,053	272,156	306,640	342,555
Interest ←		4,860	5,304	2,015	2,214	2,652	3,109	3,586	4,082	4,600	5,138
Recovery →											(347,693)
Balance, End of Year		328,860	358,884	136,361	149,800	179,464	210,396	242,639	276,238	311,240	-
The "Recovery" includes accumulated interest ↑											

The interest accumulates in the Replacement Reserve Account and is not reflected in the cash flows until the property is sold. The balance in the replacement reserve account when the property is sold includes the accumulated interest. At this time the balance in the replacement reserved account which includes accumulated interest is returned to the investor. In the example the "Recovery" at the end of the analysis period is \$347,693

For after tax analysis income tax is paid on the interest earned on the funds in the Replacement Reserve account which is shown on the Operating Cash Report on the next page.



**Operating Cash Flow Report**

Shows the interest being included in the income tax calculations.

Operating Cash Flow Yearly										October 19, 2010
Parklane Place 40 Unit Apartment Building										Investor Pro
Example with Replacement Reserves										Rental Apartment Using Replacement Reserves
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
<b>CASH FLOW BEFORE TAX</b>										
<b>Potential Gross Income</b>	<b>499,200</b>	<b>516,900</b>	<b>535,320</b>	<b>553,506</b>	<b>573,372</b>	<b>593,490</b>	<b>614,820</b>	<b>636,588</b>	<b>658,920</b>	<b>682,350</b>
Less: Vacancy & Credit Loss Allow.	14,256	14,751	15,266	15,772	16,326	16,886	17,480	18,085	18,704	19,354
<b>Effective Gross Income</b>	<b>484,944</b>	<b>502,149</b>	<b>520,054</b>	<b>537,734</b>	<b>557,046</b>	<b>576,604</b>	<b>597,340</b>	<b>618,503</b>	<b>640,216</b>	<b>662,996</b>
Operating Expenses	221,374	230,523	240,079	248,972	258,293	267,952	277,996	288,422	299,247	310,521
<b>Net Operating Income</b>	<b>263,570</b>	<b>271,626</b>	<b>279,975</b>	<b>288,763</b>	<b>298,753</b>	<b>308,652</b>	<b>319,344</b>	<b>330,082</b>	<b>340,969</b>	<b>352,475</b>
Less: Expenses not included in NOI	-	-	-	15,000	-	-	-	-	-	-
<b>Net Income</b>	<b>263,570</b>	<b>271,626</b>	<b>279,975</b>	<b>273,763</b>	<b>298,753</b>	<b>308,652</b>	<b>319,344</b>	<b>330,082</b>	<b>340,969</b>	<b>352,475</b>
Less: Principal Payments	28,318	30,517	32,886	35,439	38,190	41,155	44,350	47,793	51,503	55,501
Interest payments	149,040	146,841	144,472	141,919	139,168	136,203	133,008	129,565	125,855	121,857
<b>CASH FLOW BEFORE TAX</b>	<b>86,212</b>	<b>94,268</b>	<b>102,617</b>	<b>96,405</b>	<b>121,395</b>	<b>131,294</b>	<b>141,986</b>	<b>152,724</b>	<b>163,611</b>	<b>175,117</b>
Less: Income Tax at 35.00%	9,752	12,122	11,674	10,329	20,192	24,855	29,881	35,019	40,309	47,432
<b>CASH FLOW AFTER TAX</b>	<b>76,461</b>	<b>82,146</b>	<b>90,943</b>	<b>86,076</b>	<b>101,203</b>	<b>106,440</b>	<b>112,105</b>	<b>117,705</b>	<b>123,302</b>	<b>127,686</b>
<b>INCOME TAX CALCULATIONS</b>										
Net Operating Income	263,570	271,626	279,975	273,763	298,753	308,652	319,344	330,082	340,969	352,475
Plus: Interest Repl. Reserve Acct. →	4,860	5,304	2,015	2,214	2,652	3,109	3,586	4,082	4,600	5,138
Less: Interest Payments	149,040	146,841	144,472	141,919	139,168	136,203	133,008	129,565	125,855	121,857
Depreciation & Amortization	91,529	95,455	104,164	104,546	104,546	104,545	104,545	104,545	104,546	100,238
<b>Taxable Income</b>	<b>27,862</b>	<b>34,633</b>	<b>33,354</b>	<b>29,511</b>	<b>57,691</b>	<b>71,013</b>	<b>85,376</b>	<b>100,054</b>	<b>115,168</b>	<b>135,519</b>
<b>Income Tax at 35.00%</b>	<b>9,752</b>	<b>12,122</b>	<b>11,674</b>	<b>10,329</b>	<b>20,192</b>	<b>24,855</b>	<b>29,881</b>	<b>35,019</b>	<b>40,309</b>	<b>47,432</b>