



Rockport VAL, LLC in collaboration with **MOODY'S**
ANALYTICS

Multifamily Training Manual

Table of Contents

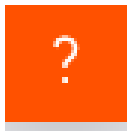
Introduction to VAL.....	3
Questions about VAL?.....	3
Login to VAL	4
VAL User Interface	4
Create New Property	5
Property Interface.....	6
Share Model.....	7
Versions.....	8
Collaborate With.....	8
Model Settings	9
Area Settings	10
Assumptions.....	11
Growth Rates	11
Vacancy & Collection Loss.....	12
Misc. Income	13
Operating Expenses	15
Capital Expenses	17
Property Cash Flow	18
Rent Roll – Unit Mix	19
Unit Type.....	19
Unit Sub Types	19
Adding Units.....	19
Clone Units.....	20
Unit Detailed Rent Roll.....	21
Import Rent Roll via Excel	21
Leasing/Rollover Assumptions.....	23
Clone X Times - Leasing/Rollover Lease Assumptions	25
Unit Mix & Exceptions.....	26
Roll-Up By Unit Type & Occupancy Status.....	26

Renovation Cost Assumptions	26
# of Units	26
Unit Exceptions	26
Renovate Units.....	27
Absorption Assumptions.....	28
Vacant Units.....	29
Rollover Assumptions	30
Property Cash Flow	31
Rent Roll Mark to Market Report	31
Valuation	32
Report - Valuation: Sale Yield Matrix.....	33
Report - Investment Analysis: Investment Cash Flow	34
Investment Analysis: Return Sensitivities	34
Debt.....	35
Debt Report – Schedule Amortization Table	37
Report Investment Analysis – Levered IRR	38
Settings & Report Packages	39
Scenarios & Sets.....	41
RLA Set Rollover Scenarios.....	42
Scenario Comparison Reports.....	43
Scenario Comparison	43
Cashflow Variance.....	43
Toggling Scenarios in Reports.....	44

Introduction to VAL

VAL is a cash flow modeling & valuation platform that is user friendly, affordable, efficient and a powerful alternative to all other products on the market. It is cloud-based so you can login to VAL from anywhere, on any device. Seamlessly collaborate and share with colleagues and clients. Today, you will learn how your team can benefit from technology's newest solution to DCF modeling and valuation.

Questions about VAL?



On-Screen Tutorials: Click on the question mark located at the bottom right corner of any VAL screen to access the tutorials. Tutorials include slide shows, interactive data entry assistance, and pdf downloads.



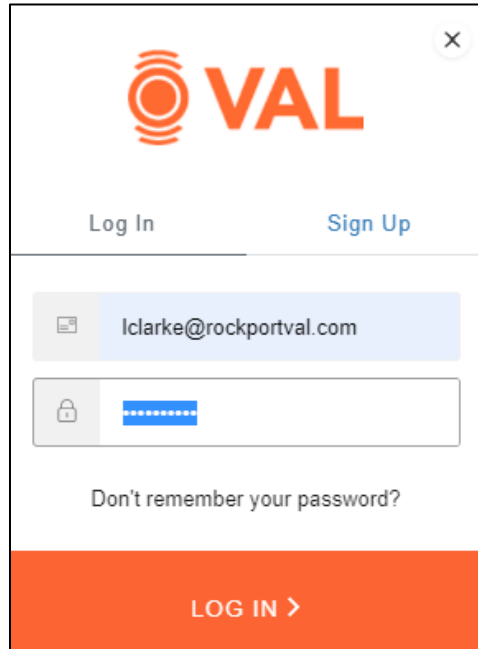
YouTube Channel: Access numerous tutorial videos at <https://www.youtube.com/rockportval>



Support: Email support at support@rockportval.com.

Login to VAL

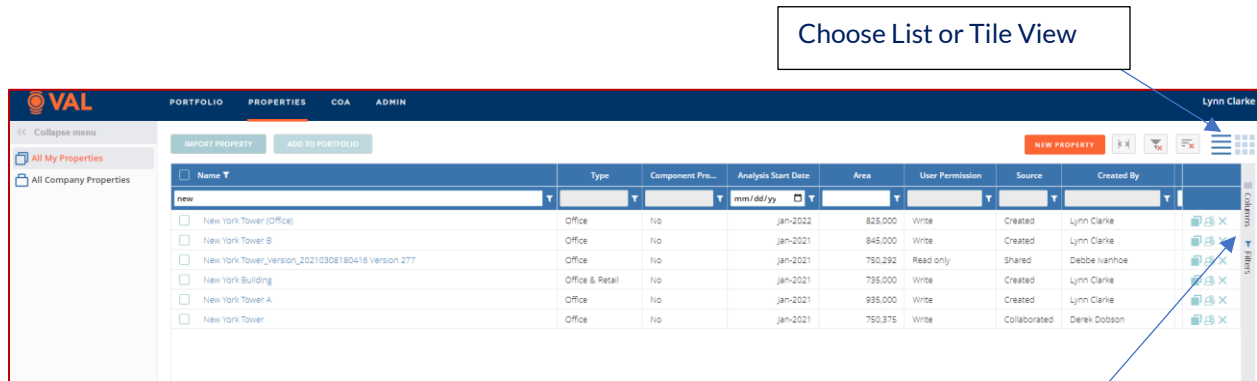
Go to www.rockportval.com and click “Log In” in the upper right-hand corner and enter credential to access VAL.



The login form features the VAL logo at the top, with 'Log In' and 'Sign Up' links. Below these are input fields for an email address (lclarke@rockportval.com) and a password (represented by dots). A 'Don't remember your password?' link is positioned below the password field. A large orange 'LOG IN >' button is at the bottom.

VAL User Interface

The VAL user interface is designed to be intuitive and easy to navigate.



The screenshot shows the VAL user interface with a top navigation bar (PORTFOLIO, PROPERTIES, COA, ADMIN) and a user profile (Lynn Clarke). A left sidebar contains 'All My Properties' and 'All Company Properties'. The main area displays a table of properties with columns for Name, Type, Component Pro..., Analysis Start Date, Area, User Permission, Source, and Created By. A callout box 'Choose List or Tile View' points to the view toggle icons. Another callout box 'Customize column headers' points to the column headers.

Name	Type	Component Pro...	Analysis Start Date	Area	User Permission	Source	Created By
New York Tower (Office)	Office	No	Jan-2022	825,000	Write	Created	Lynn Clarke
New York Tower B	Office	No	Jan-2021	845,000	Write	Created	Lynn Clarke
New York Tower_Version_20210308180416 Version 277	Office	No	Jan-2021	750,292	Read only	Shared	Debbie Ivanhoe
New York Building	Office & Retail	No	Jan-2021	735,000	Write	Created	Lynn Clarke
New York Tower A	Office	No	Jan-2021	935,000	Write	Created	Lynn Clarke
New York Tower	Office	No	Jan-2021	750,375	Write	Collaborated	Derek Dobson

Create New Property

In this training scenario, we will create a multifamily property.



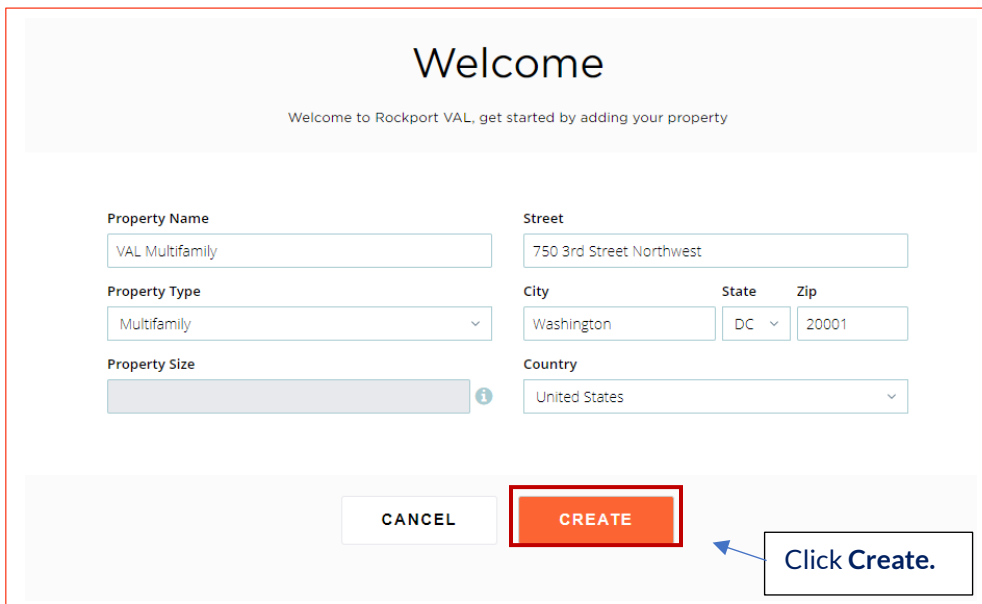

PORTFOLIO PROPERTIES COA CLIENTS

IMPORT PROPERTY ADD TO PORTFOLIO

NEW PROPERTY

Click New Property.

- Click New Property.



Welcome

Welcome to Rockport VAL, get started by adding your property

Property Name: VAL Multifamily

Street: 750 3rd Street Northwest

Property Type: Multifamily

City: Washington State: DC Zip: 20001

Property Size: [Empty field]

Country: United States

CANCEL CREATE

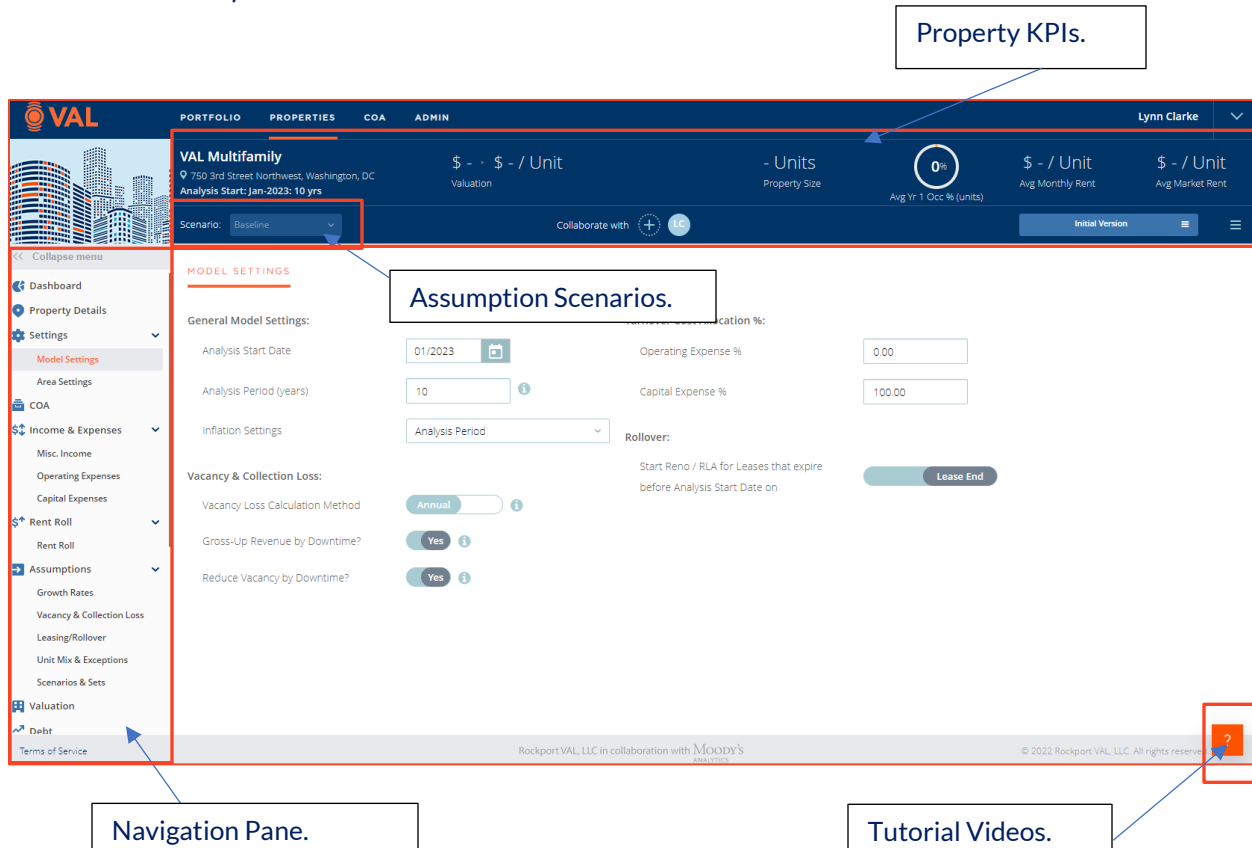
Click Create.

Add the following property details:

- Property Name: VAL Multifamily
- Property Type: Multifamily
- Address: 750 3rd Street Northwest Washington DC 20001
- Click **Create**

Property Interface

When opening a property, the header will display key performing metrics of the property such as Valuation, Average Rent, and Average Occupancy (assuming all relevant inputs have been made).



The screenshot displays the VAL Multifamily Property Interface. The header section shows key metrics: Valuation (\$ - / Unit), Property Size (- Units), and Average Occupancy (0%). The main content area is titled 'MODEL SETTINGS' and includes sections for General Model Settings, Vacancy & Collection Loss, and Rollover. The left sidebar contains a navigation pane with options like Dashboard, Property Details, Settings, COA, Income & Expenses, Rent Roll, Assumptions, Valuation, Debt, and Terms of Service. The bottom right corner features a red square icon with a question mark, labeled as 'Tutorial Videos'.

Property KPIs.

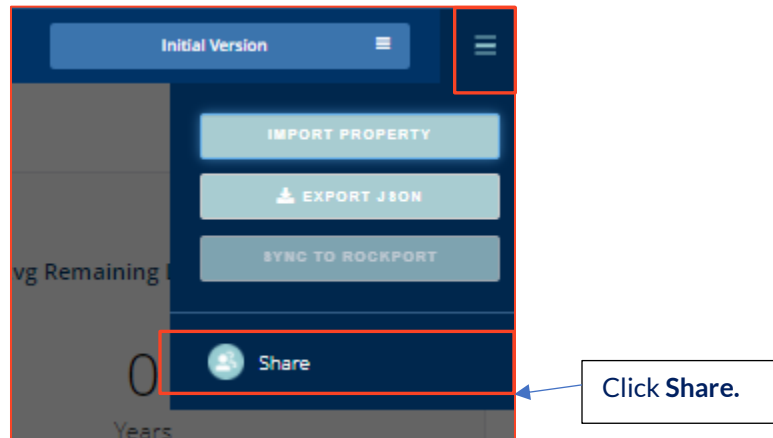
Assumption Scenarios.

Navigation Pane.

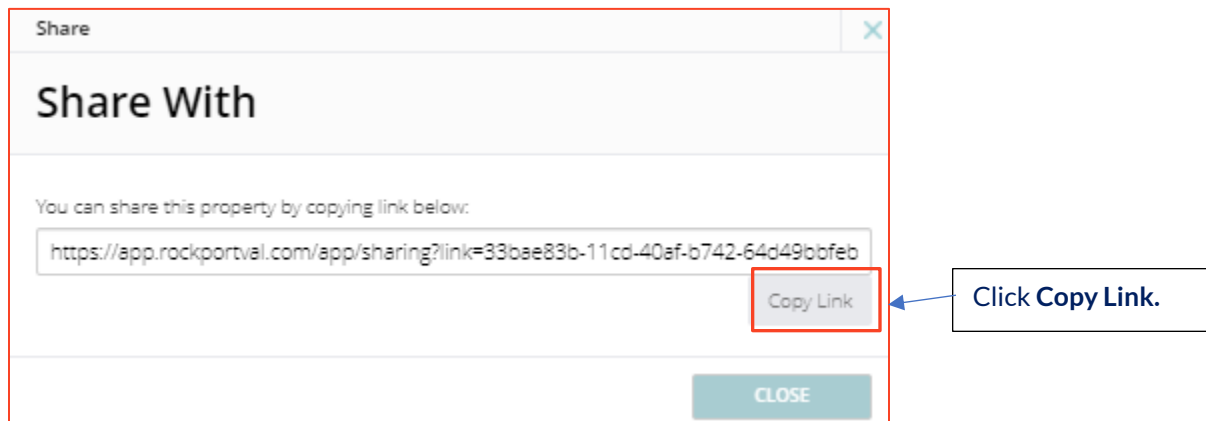
Tutorial Videos.

Share Model

A copy of a model can be sent to a recipient by clicking on the “hamburger” menu icon located in the top right-hand section of the window and selecting **Share**. Note, an email will be sent to the user and recipient confirming the file share is initiated.

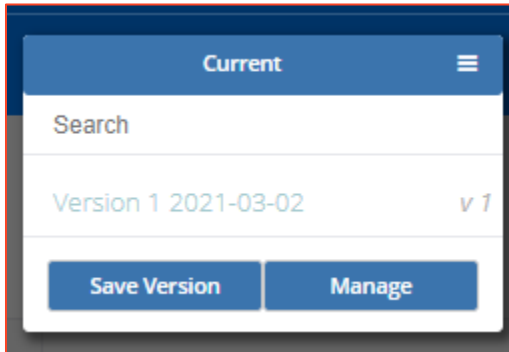


Click on **Copy Link** to copy and paste wherever you want your clients to view the model, whether in an email, listing site or deal room. The recipient does not need to be a VAL subscriber to have access to the model. The recipient can review all the input screens and reports and make changes to the assumptions. In addition, the ability to export to Excel is available through the Share feature.



Versions

VAL can archive a version of a model at any point in time to reference. This is useful to refer to the version of the model sent to the user as updates are constantly being applied.

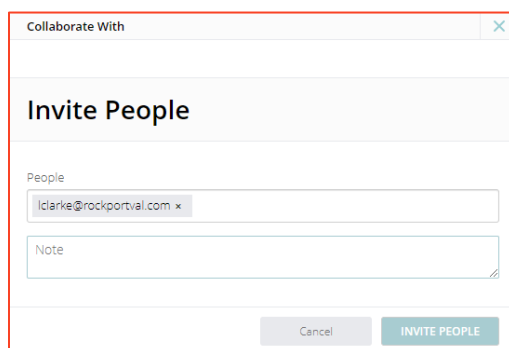


Collaborate With

The Collaboration feature gives access to internal or external users to view and edit models in VAL. The recipient must be a VAL subscriber to collaborate and has access to make live changes to the model.



Enter the email address or select people to collaborate and click **Invite People**. VAL will send an email to the user inviting to collaborate.



Model Settings

The Model settings window is where users specify property settings such as analysis start date, number of years of analysis, and turnover cost allocation. By default, the inflation month is the Analysis Period. For example, if the analysis start date is November 2023, the inflation will be applied each November. However, the inflation month can be set as any month.



MODEL SETTINGS

General Model Settings:

Analysis Start Date

01/2023

Analysis Period (years)

10

Inflation Settings

Analysis Period

Turnover Cost Allocation %:

Operating Expense %

0.00

Capital Expense %

100.00

Vacancy & Collection Loss:

Vacancy Loss Calculation Method

Annual

Gross-Up Revenue by Downtime?

Yes

Reduce Vacancy by Downtime?

Yes

Rollover:

Start Reno / RLA for Leases that expire before Analysis Start Date on

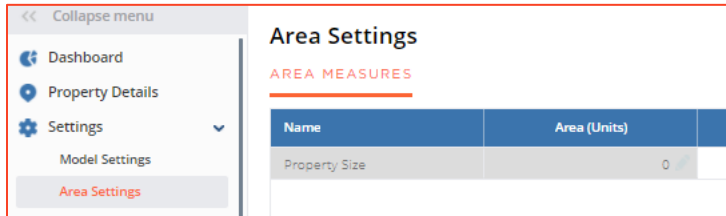
Lease End

Add the following Model Settings:

- Analysis Start Date: 1/2023
- Analysis Period (years): 10

Area Settings












Add area measurements in the Area Settings. The Number of Units will automatically populate as the Property Size once units are added in the rent roll.



Name	Area (Units)
Property Size	0



Helpful Hint: Click **F1** to view **VAL** hot keys and short cuts.

Keyboard Shortcuts		
General top bar		
Press this key	To do this	
 + 	Tabs navigation	
 + 	User menu	
Portfolio		
Left navigation sidebar		
Press this key	To do this	
 + 	Sidebar navigation	
arrow keys		
 + 	My Portfolios	
 + 	Create Portfolio	

Assumptions

Growth Rates

Enter the growth rates to be applied to the model. Growth rates can be overridden at the line-item level.



Growth Rates
REIS Data

Growth Rate Name	Rate Type	Rate	Year Ending										
			Dec-23	Dec-24	Dec-25	Dec-26	Dec-27	Dec-28	Dec-29	Dec-30	Dec-31	Dec-32	Dec-33
General Growth	Direct Entry	3.00%		3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Market Rent Growth	Direct Entry	Varies		2.00%	2.00%	2.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Misc. Income Growth	Use General												
Operating Expense Growth	Use General												
Leasing Costs Growth	Use General												
Capital Expense Growth	Use General												

Add the following Growth Rates:

- General Growth: 3%
- Market Rent: 2% in 2024 – 2026, 3% for remaining years



Helpful Hint: To copy values to the right, click **Alt + E** or right click on the field and select **Copy Right**.

Vacancy & Collection Loss

Vacancy & Collection Loss is an adjustment to potential revenue on the cash flow factoring likely vacancy loss due to market conditions and expected collection loss due to tenants' failure to pay.



Vacancy & Collection Loss		LM REIS Data	Helpful Hints										
Loss Type	Loss Basis	Rate	Year Ending										
			Dec-23	Dec-24	Dec-25	Dec-26	Dec-27	Dec-28	Dec-29	Dec-30	Dec-31	Dec-32	Dec-33
Vacancy Loss	Potential Gross Income	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Collection Loss	Potential Gross Income	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%

Add the following Vacancy & Collection Loss assumptions:

- Vacancy Loss: 5%
- Collection Loss: 1%

Misc. Income

Miscellaneous income is where revenue generating items not associated to a unit is entered such as Vending, Signage, Parking and Antennae.

Misc. Income may be calculated by the following Unit of Measures:

- \$ amount
- \$/Area
- % of EGR
- % of Line



Income & Expenses

ADD TO PARENT
ADD INCOME

MISC. INCOME
OPERATING EXPENSES
CAPITAL EXPENSES
ALL ITEMS

Type	Description	Account	Amount	UoM	Frequency	Area	Growth Assump...	Growth Rate	Variable Income
MISC	Signage		\$1,250	\$ amount	Monthly	Property Size	Misc. Income...	3.00 %	No

Add the below Misc. Income:

- Description: Signage
- Amount: \$1250
- UofM: \$ amount
- Frequency: Monthly
- Growth: Misc. Income
- Variable: No

Income & Expenses

ADD TO PARENT
ADD INCOME

MISC. INCOME
OPERATING EXPENSES
CAPITAL EXPENSES
ALL ITEMS

Type	Description	Account	Amount	UoM	Frequency	Area	Growth Assump...	Growth Rate	Variable Income
MISC	Signage		\$1,250	\$ amount	Monthly	Property Size	Misc. Income...	3.00 %	No
MISC	Security Deposit		\$0	% of Line	Annual	Property Size	Misc. Income...	3.00 %	No

Security deposit revenue is 8% of Base Rental Income.

- Select **Add Income** to add a line item.
- Description: Security Deposit
- UofM: Select **% of Line**.

Percent of line

Apply to: Start Date: End Date: Term:

Analysis Period: Min: Max:

Applied	Min	Max
Annually		
Amount		
Growth Rate		

Sort Tenants: Sort Income & Expenses:

<input checked="" type="checkbox"/>	Cash Flow Item	Unit #	Occupancy Status	%
<input checked="" type="checkbox"/>	Potential Rental Income			
<input checked="" type="checkbox"/>	Downtime Vacancy			
<input checked="" type="checkbox"/>	Concessions			
<input checked="" type="checkbox"/>	Base Rental Income			8.00%
<input checked="" type="checkbox"/>	Misc. Income			
<input checked="" type="checkbox"/>	Signage			
<input checked="" type="checkbox"/>	Security Deposit			
<input checked="" type="checkbox"/>	Total Potential Gross Income			
<input checked="" type="checkbox"/>	Vacancy Loss			

Cancel SAVE

- Enter **8%** of Base Rental Income.

Operating Expenses

Operating expenses include items such as maintenance activities, utilities, insurance, taxes, and management fees and included in the NOI.

Operating Expenses may be calculated by the following Unit of Measures:

- \$ amount
- \$/Area
- % of EGR
- % of Line
- Prop 13



Helpful Hint: Click TAB to move cursor to the right when entering data in the input screens.



Income & Expenses

MISC. INCOME
OPERATING EXPENSES
CAPITAL EXPENSES
ALL ITEMS

Type	Description	Account	Amount	UoM	Frequency	Area	Growth Assump...	Growth Rate	Variable Expen...
OPER	Utilities		\$75,000	\$ amount	Annual	Property Size	Operating Ex...	3.00 %	No

Clone
Clone X times
Delete

- Utilities is \$75,000/year growing by 3%.
- Repairs & Maintenance is \$75,000/year, use the **Clone** option to duplicate.



Click Add Expense to insert a row.

Income & Expenses

MISC. INCOME **OPERATING EXPENSES** CAPITAL EXPENSES ALL ITEMS

	Type	Description	Account	Amount	UoM	Frequency	Area	Growth Assump...	Growth Rate	Variable Expen...	
	OPER	Utilities		\$75,000	\$ amount	Annual	Property Size	Operating Ex...	3.00 %	No	X
	OPER	Repairs & Maintenance		\$75,000	\$ amount	Annual	Property Size	Operating Ex...	3.00 %	No	X
	OPER	Real Estate Taxes		\$0	\$ amount	Annual	Property Size	Operating Ex...	3.00 %	No	X

Click on pencil icon to edit Amount.

- Click on **Add Expense** to insert a row.
- Real Estate Taxes are \$190,000/Year paid in October growing at 2% per year.
- To specify a specific month, select **Edit** from the Amount field.

OPER > Real Estate Taxes

Frequency: Monthly

For the Years Ending	Year 1 Dec-2023	Year 2 Dec-2024	Year 3 Dec-2025	Year 4 Dec-2026	Year 5 Dec-2027	Year 6 Dec-2028	Year 7 Dec-2029	Year 8 Dec-2030	Year 9 Dec-2031	Year 10 Dec-2032
January	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
February	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
March	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
April	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
June	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
July	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
August	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
September	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
October	190,000.00	190,000.00	190,000.00	190,000.00	190,000.00	190,000.00	190,000.00	190,000.00	190,000.00	190,000.00
November	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
December	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual (uninflated)	190,000.00	190,000.00	190,000.00	190,000.00	190,000.00	190,000.00	190,000.00	190,000.00	190,000.00	190,000.00
Growth Assumption	RET Growth	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Annual (inflated)	190,000.00	193,800.00	197,676.00	201,629.52	205,662.11	209,775.35	213,970.86	218,250.28	222,615.28	227,067.00

Cancel SAVE

- Enter **\$190,000** in October and click and drag to replicate every year.
- Create a 2% Real Estate Tax Growth Rate by clicking **Add New** from the Growth Assumption drop down menu.
- Click **Save**.



Income & Expenses						
<div> MISC. INCOME OPERATING EXPENSES CAPITAL EXPENSES ALL ITEMS </div>						
	Type	Description	Account	Amount	UoM	Frequency
	OPER	Utilities		\$75,000	\$ amount	Annual
	OPER	Repairs & Maintenance		\$75,000	\$ amount	Annual
	OPER	Real Estate Taxes		Detailed	\$ amount	Monthly
	OPER	Management Fee		3.00%	% of EGR	Annual

- Management Fee is 3% of EGR.

Capital Expenses

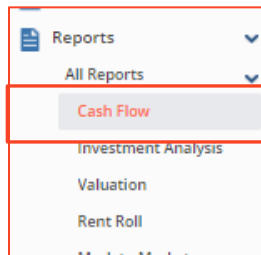
Capital expenses are typically not included in the NOI and will be displayed below NOI on the cash flow. Examples of capital expenses are reserves, roof repair, and building improvements.



Income & Expenses									
<div> MISC. INCOME OPERATING EXPENSES CAPITAL EXPENSES ALL ITEMS </div>									
	Type	Description	Account	Amount	UoM	Frequency	Area	Grow	
	CAP	Replacement Reserves		\$300.00	\$/Area	Annual	Property Size	Cap	

- Replacement Reserves is \$300/Total Units.

Property Cash Flow



Cash Flow

MAIN PERIOD 1 DETAIL ALL PERIODS DETAIL

Show data: Annual Sort Expenses: As Entered Show figures in '000s: No

► For the Years Ending	Year 1 Dec-2023	Year 2 Dec-2024	Year 3 Dec-2025	Year 4 Dec-2026	Year 5 Dec-2027	Year 6 Dec-2028	Year 7 Dec-2029	Year 8 Dec-2030	Year 9 Dec-2031	Year 10 Dec-2032	Year 11 Dec-2033
Potential Rental Income	-	-	-	-	-	-	-	-	-	-	-
Downtime/Vacancy	-	-	-	-	-	-	-	-	-	-	-
Concessions	-	-	-	-	-	-	-	-	-	-	-
Base Rental Income	-	-	-	-	-	-	-	-	-	-	-
▼ Misc. Income											
Signage	15,000	15,450	15,914	16,391	16,883	17,389	17,911	18,448	19,002	19,572	20,159
Security Deposit	-	-	-	-	-	-	-	-	-	-	-
Total Misc. Income	15,000	15,450	15,914	16,391	16,883	17,389	17,911	18,448	19,002	19,572	20,159
Total Potential Gross Income	15,000	15,450	15,914	16,391	16,883	17,389	17,911	18,448	19,002	19,572	20,159
Vacancy Loss	(750)	(772)	(796)	(820)	(844)	(869)	(896)	(922)	(950)	(979)	(1,008)
Collection Loss	(150)	(154)	(159)	(164)	(169)	(174)	(179)	(184)	(190)	(196)	(202)
Effective Gross Income	14,100	14,523	14,959	15,407	15,870	16,346	16,836	17,341	17,861	18,397	18,949
▼ Expenses											
Utilities	75,000	77,250	79,568	81,955	84,413	86,946	89,554	92,241	95,008	97,858	100,794
Repairs & Maintenance	75,000	77,250	79,568	81,955	84,413	86,946	89,554	92,241	95,008	97,858	100,794
Real Estate Taxes	190,000	193,800	197,676	201,630	205,662	209,775	213,971	218,250	222,615	227,068	231,609
Management Fee	423	436	449	462	476	490	505	520	536	552	568
Total Operating Expenses	340,423	348,736	357,260	366,001	374,965	384,157	393,584	403,252	413,167	423,335	433,765
Net Operating Income	(326,323)	(334,213)	(342,301)	(350,593)	(359,095)	(367,811)	(376,748)	(385,910)	(395,305)	(404,938)	(414,816)
► Leasing & Capital Costs	-	-	-	-	-	-	-	-	-	-	-
Net Cash Flow	(326,323)	(334,213)	(342,301)	(350,593)	(359,095)	(367,811)	(376,748)	(385,910)	(395,305)	(404,938)	(414,816)

Rent Roll – Unit Mix

Add a unit level or a unit mix rent roll for the property in the Rent Roll screen.

Unit Type

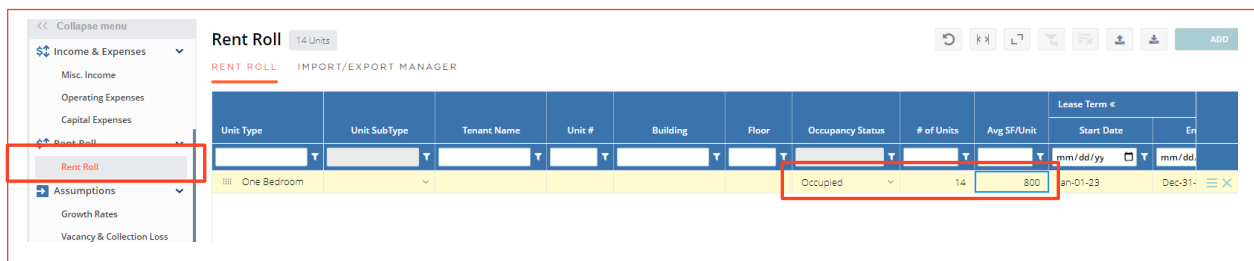
The Unit Type can follow whatever naming conventions you use for your asset.

Unit Sub Types

Unit Sub Types are identifiers to model appropriate assumptions and do not impact analysis or cash flow. Categorize Unit Sub Types by the following options:

- Market
- Low Income
- Section 8
- Model
- Management
- Rent Controlled
- Rent Stabilized
- Super
- Other

Adding Units

Enter the following unit information:

- Unit Type: One Bedroom
- Occupancy Status: Occupied
- # of Units: 14
- Avg SF/Unit: 800 SF

Rent Roll 14 Units										
RENT ROLL IMPORT/EXPORT MANAGER										
Unit Type	Avg SF/Unit	Lease Term			Rent		Concessions (Initial Term)		Assumptions Applied	Filters
		Start Date	End Date	Lease Term	Amount	UoM	Amount	UoM		
One Bedroom	800	Jan-01-23	Dec-31-23	12M	3,200	\$/Unit/Mo		Months	One Bedroom / Occupied	

- Start Date: 01/01/2023
- Lease Term: 12 months
- Rent: 3200 \$/Unit/Mo

Clone Units

Clone the One Bedroom Unit and update the following assumption:

- Unit Type: Two Bedroom
- # of Units: 5
- Avg SF/Unit: 1,290 SF
- Rent: 4170 \$/Unit/Mo



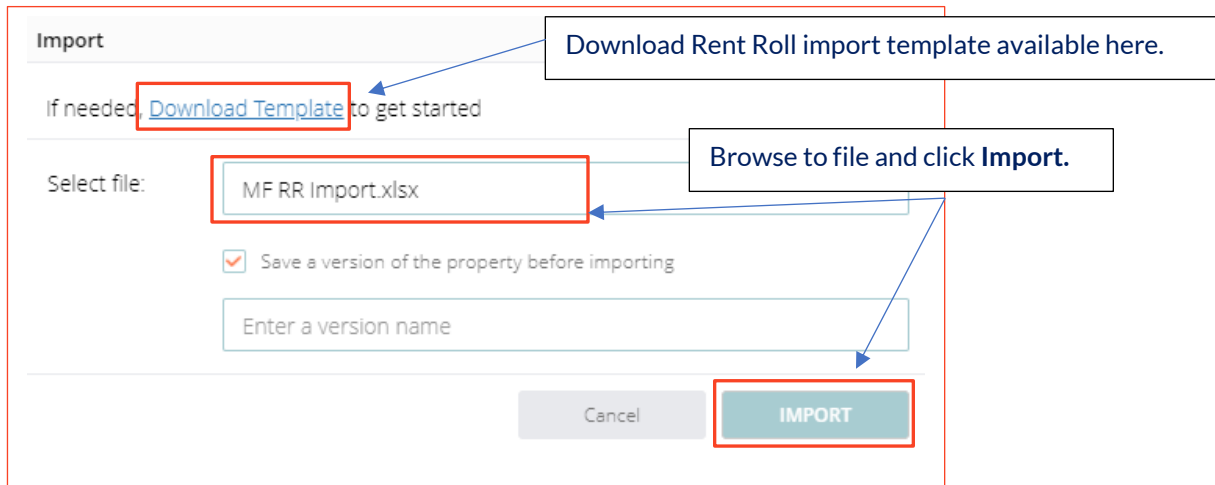
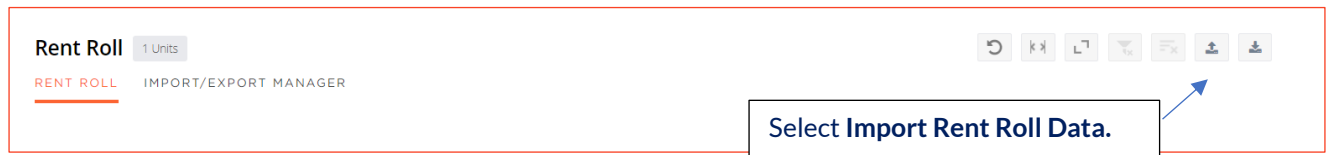
Rent Roll 19 Units										
RENT ROLL IMPORT/EXPORT MANAGER										
Unit Type	Occupancy Status	# of Units	Avg SF/Unit	Lease Term			Rent		Concessions (Initial Term)	
				Start Date	End Date	Lease Term	Amount	UoM	Amount	U
One Bedroom	Occupied	14	800	Jan-01-23	Dec-31-23	12M	3,200	\$/Unit/Mo		Months
Two Bedroom	Occupied	5	1,290	Jan-01-23	Dec-31-23	12M	4,170	\$/Unit/Mo		Months

Unit Detailed Rent Roll

VAL has the capability to model each unit individually to reflect the terms of the contractual lease.

Import Rent Roll via Excel

VAL allows you to easily import data from Excel by leveraging the **Import Rent Roll** feature. VAL provides an Excel template to format the data into the appropriate columns and rows for import which can be accessed by clicking on **Download Template**. In addition to importing the rent roll you can also copy and paste to easily populate data from Excel into VAL.



- Select **MF RR Import.xlsx** and click **Import**.

A total of 20 units imported into VAL and populated the Unit Type, Unit #, Building #, Floor, Occupancy Status, Average SF/Unit, Start and End Date, and Rental Amount per Unit.

If the unit is vacant as of the beginning of the analysis, the occupancy status is set to **Vacant**.

Rent Roll												
RENT ROLL IMPORT/EXPORT MANAGER												
Unit Type	Unit SubType	Tenant Name	Unit #	Building	Floor	Occupancy Status	# of Units	Avg SF/Unit	Lease Term €			
									Start Date	End Date	Lease Term	
									mm/dd/yy	mm/dd/yy		
One Bedroom	Market		1A	1	1	Occupied	1	775	Oct-01-22	Sep-30-23	1	×
One Bedroom	Market		2A	1	1	Vacant	1	775				×
One Bedroom	Market		3A	1	1	Occupied	1	775	Oct-01-22	Sep-30-23	1	×
One Bedroom	Market		4A	1	2	Occupied	1	775	Jan-01-23	Dec-31-23	1	×
One Bedroom	Market		5A	1	2	Occupied	1	775	Oct-01-22	Sep-30-23	1	×
One Bedroom	Market		6A	1	2	Occupied	1	775	Sep-15-22	Sep-14-23	1	×
One Bedroom	Market		7A	1	3	Occupied	1	775	Nov-01-22	Oct-31-23	1	×
One Bedroom	Market		8A	1	3	Occupied	1	835	Dec-15-22	Dec-14-23	1	×
One Bedroom	Market		1B	2	1	Vacant	1	790				×
One Bedroom	Super		2B	2	1	Occupied	1	775	Jan-01-23	Dec-31-23	1	×
One Bedroom	Rent Stabilized		3B	2	2	Occupied	1	775	Aug-01-22	Jul-31-23	1	×
One Bedroom	Rent Stabilized		4B	2	2	Occupied	1	835	Jul-01-22	Jun-30-23	1	×
One Bedroom	Rent Stabilized		5B	2	3	Occupied	1	835	Jun-15-22	Jun-14-23	1	×
One Bedroom	Rent Stabilized		6B	2	3	Occupied	1	905	Jan-01-23	Dec-31-23	1	×
Two Bedroom	Market		1C	3	1	Vacant	1	1,290				×
Two Bedroom	Market		2C	3	1	Vacant	1	1,290				×

If an error is generated after attempting to import, click on the **Import/Export Manager** tab to diagnose the drivers of the error. The tab will display the specific line item that generated the error to assist you in troubleshooting the issue.

Rent Roll					
RENT ROLL IMPORT/EXPORT MANAGER					
Import Date	Imported By	Import Status	# of Failed Rows	Property Version	
mm/dd/yyyy					
Dec 28, 2021 5:27 PM	Lynn Clarke	Successful	0	12/28/2021 06:28PM	×
Excel ...	Row Imp...	Field Name	Value from Impor...	Error type	Error T
3	Yes	EndDate		Defaults used	Set to "Lease Term: Start Date" + 12M
5	Yes	EndDate		Defaults used	Set to "Lease Term: Start Date" + 12M
6	Yes	EndDate		Defaults used	Set to "Lease Term: Start Date" + 12M
7	Yes	EndDate		Defaults used	Set to "Lease Term: Start Date" + 12M
8	Yes	EndDate		Defaults used	Set to "Lease Term: Start Date" + 12M
9	Yes	EndDate		Defaults used	Set to "Lease Term: Start Date" + 12M

Leasing/Rollover Assumptions

The Rollover Assumptions define the projected lease assumptions after the initial unit expires based on if the unit vacates or renews their lease. Enter the market assumptions in the New fields based on if the existing unit vacates the space and enter the market assumptions in the Renew fields based on if the existing unit renews their space. The renewal probability will weigh the new and renewal assumptions after the contractual lease expires.



Collapse menu

- Rent Roll
- Assumptions
- Growth Rates
- Vacancy & Collection Loss
- Leasing/Rollover
- Unit Mix & Exceptions
- Scenarios & Sets

Leasing/Rollover Assumptions

RLA RLA VARIABLES

RLA Name	Active?	Renewal Probability	Term	Downtime	Market Rents					Growth Assumpti
					New	New UoM	Renew	Renew UoM		
One Bedroom	N	60.0%	12M	10D	4,600.00	\$/Unit/Mo	Use new			Market Rent Gro... X

Add below Rollover Lease Assumptions:

- RLA Name: One Bedroom
- Renewal Probability: 60%
- Term: 12 Months
- Downtime: 10 Days
- Market Rent:
 - New: 4600 \$Unit/Mo (Market Rent Growth)



Helpful Hint: For Downtime enter D for Days or M for Months to reflect the downtime period.

Add below Rollover Lease Assumptions:

- Concessions:
 - New: 1 month
 - Renew: 0 months
- Turnover Costs:
 - New: 500 \$Unit
 - Renew: 0 \$Unit
- Leasing Commissions:
 - New: 3%
 - Renew: 0%



Clone X Times - Leasing/Rollover Lease Assumptions

The Clone X times feature enables you to save time and duplicate a record multiple times. In our example, we will copy the One Bedroom RLA two times and create a Renovated One Bedroom RLA to reflect the one-bedroom unit assumption after renovations with a higher market rent and a Two Bedroom RLA.



Leasing/Rollover Assumptions

RLA RLA VARIABLES

RLA Name	Active?	Renewal Probability	Term	Downtime
One Bedroom		60.0%	12M	10D

Clone
Clone X times
Delete

- Right click the One Bedroom RLA and select **Clone X Times**.

Enter number to clone

2

Cancel CLONE

- Clone 2 times.

Leasing/Rollover Assumptions

RLA RLA VARIABLES

RLA Name	Active?	Renewal Probability	Term	Downtime	Market Rents <				Growth Assumption	Concessi	New
					New	New UoM	Renew	Renew UoM			
One Bedroom	N	60.0%	12M	10D	4,600.00	\$/Unit/Mo	Use new		Market Rent Gro...	1.00	X
RENO One Bedroom	N	60.0%	12M	10D	5,000.00	\$/Unit/Mo	Use new		Market Rent Gro...	1.00	X
Two Bedroom	N	60.0%	12M	10D	6,500.00	\$/Unit/Mo	Use new		Market Rent Gro...	1.00	X

Make below adjustments to the RLAs:

- RENO One Bedroom
 - Market Rent: 5000 \$/Unit/Mo
- Two Bedroom
 - Market Rent: 6500 \$/Unit/Mo

Unit Mix & Exceptions

The Unit Mix and Exceptions screen is where we model renovations, absorption and apply the rollover assumptions to the existing tenants. The Rent Roll captures the factual data for all units in the property and the assumptions are applied in the Unit Mix & Exceptions screen. If you entered a unit detailed rent roll, the units are aggregated by unit type to easily apply absorption and rollover assumptions. These rollover assumptions are required to run a DCF analysis or rental income will stop once the contractual lease expires.

Roll-Up By Unit Type & Occupancy Status

Select additional parameters to group the units by such as Unit Sub Type, Building, Avg SF/Unit, and Floor. This enables you to apply rollover assumptions easily based on the attribute selected.

Renovation Cost Assumptions

To model renovations toggle “Yes” and add the data elements representing the renovation costs and timing.

of Units

The # of Units section displays how many units exist in the model and categorize by Rolled Up units and by Unit Exceptions.

# of Units		
Rolled Up	Unit Exceptions	Net
<input type="text"/>	<input type="text"/>	<input type="text"/>
7	0	7
1	0	1
5	0	5
1	0	1
4	0	4
2	0	2

Unit Exceptions

For individual units who have a unique renovation, absorption or rollover assumption, you can utilize the Unit Exceptions feature by clicking Add Unit Exception. Select a unit from the model and enter the specific terms.

Unit Exceptions: 0

ADD UNIT EXCEPTION

Unit #	Unit Type	Occupancy Status	Building	Renovation Cost Assumptions <				Absorption Assumptions <			Rollover Assumptions <			Lease End Date	Filters
				Reno?	Start Reno	Reno Period (#D or #M)	Reno Cost	UoM	Start Absorption	Absorption Period (#M)	Leasing Assumption	Upon Expiration	Leasing Assumption		
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	mm/dd	<input type="checkbox"/>

Renovate Units

In this example, units occupying Building 2 are scheduled for renovation. Select to roll up units by Building and sort to easily identify the units in Building 2. There are 7 occupied units in building 2, once their leases expire renovation will begin immediately and will take 45 days to renovate at \$20,000 per unit. Vacant units in Building 2 will share the same renovation schedule where we can leverage VAL's copy and paste functionality to update the assumptions.



<< Collapse menu

- Capital Expenses
- Rent Roll
- Assumptions
- Growth Rates
- Vacancy & Collection Loss
- Leasing/Rollover
- Unit Mix & Exceptions
- Scenario & Setup
- Valuation
- Debt
- Scenario Comparison
- Reports
- All Reports
- Cash Flow

Roll-up By Unit Type & Occupancy Status AND:
☐ Unit Sub Type
☒ Building
☐ Avg \$/Unit
☐ Floor
[Helpful](#)

Assumptions to Apply to the RollUps:

Unit Type	Occupancy Status	Buil...	Renovation Cost Assumptions <				Absorption Assumptions <			Rollover Assumptions <		
			Reno?	Start Reno	Reno Period (#D or #M)	Reno Cost	UoM	Start Absorption	Absorption Period (#M)	Leasing Assumption	Upon Expiration	Leasing Assumption
One Be...	Occupied	1	No				\$/Unit				Market	
One Be...	Vacant	1	No				\$/Unit				Market	
One Be...	Occupied	2	Yes	1D	45D	20,000	\$/Unit				Market	
One Be...	Vacant	2	Yes	1D	45D	20,000	\$/Unit				Market	
Two Be...	Occupied	3	No				\$/Unit				Market	
Two Be...	Vacant	3	No				\$/Unit				Market	

Unit Exceptions: 0 >

Add the following Unit Mix & Exceptions assumptions:

- Roll-up Unit Type by **Building**.
- Click on Building header to sort by Building.
- Toggle **Yes** for One Bedroom Units that are occupied in Building 2.
- One Bedroom Units - Occupied
 - Start Reno: 1D
 - Reno Period: 45D
 - Reno Cost: \$20,000
- Toggles Yes for One Bedroom Units that are vacant.
- Copy and paste the renovation assumptions.

Absorption Assumptions

Enter the absorption assumptions for vacant units and/or units that have been renovated. Absorption begins as of the analysis start date or upon completion of the renovation. Apply the leasing assumption during the absorption period.

In our example, after renovation is complete for the units in Building 2 we will begin leasing the units on Day 1 and estimate it will take 1 month to lease up the vacant units and assign the RENO One Bedroom leasing assumption.



Roll-up By Unit Type & Occupancy Status AND:
☐ Unit Sub Type
☒ Building
☐ Avg SF/Unit
☐ Floor
[Helpful Hints](#)

Assumptions to Apply to the RollUps: ▼

Unit Type	Occupancy Status	Buil...	Renovation Cost Assumptions <				Absorption Assumptions <			Rollover Assumptions <			# of Units		
			Reno?	Start Reno	Reno Period (#D or #M)	Reno Cost	UoM	Start Absorption	Absorption Period (#M)	Leasing Assumption	Upon Expiration	Leasing Assumption	Rolled Up	Un Except	
One Be...	Occupied	1	No				\$/Unit					Market		7	0
One Be...	Vacant	1	No				\$/Unit					Market		1	0
One Be...	Occupied	2	Yes	1D	45D	20,000	\$/Unit	1D				Market		5	0
One Be...	Vacant	2	Yes	1D	45D	20,000	\$/Unit	1D	1	RENO Q...		Market		1	0
Two Be...	Occupied	3	No				\$/Unit					Market		4	0
Two Be...	Vacant	3	No				\$/Unit					Market		2	0

Unit Exceptions: 0 >

Add the following Unit Mix & Exceptions assumptions:

- One Bedroom – Occupied
 - Start Absorption: 1 Day
 - Leasing Assumption: RENO One Bedroom
- One Bedroom Units - Vacant
 - Start Absorption: 1 Day
 - Absorption Period: 1 Month
 - Leasing Assumption: RENO One Bedroom

Vacant Units

Units that are vacant as of the beginning of the analysis will be editable in the Absorption Assumption screen to add lease up parameters.

In our example the vacant units will begin leasing immediately on day 1 and estimate to take 1 month to lease up with the One Bedroom RLA and Two Bedroom RLA terms during the absorption period.



Roll-up By Unit Type & Occupancy Status AND:
☐ Unit Sub Type
☒ Building
☐ Avg SF/Unit
☐ Floor
[Helpful Hints](#)

Assumptions to Apply to the RollUps: ▼

Unit Type	Occupancy Status	Buil...	Renovation Cost Assumptions ◀				Absorption Assumptions ◀			Rollover Assumptions ◀		# o	
			Reno?	Start Reno	Reno Period (#D or #M)	Reno Cost	UoM	Start Absorption	Absorption Period (#M)	Leasing Assumption	Upon Expiration		Leasing Assumption
One Be...	Occupied	1	No				\$/Unit				Market		7
One Be...	Vacant	1	No				\$/Unit	1D	1	One Bed...	Market		1
One Be...	Occupied	2	Yes	1D	45D	20,000	\$/Unit	1D		RENO Q...	Market		5
One Be...	Vacant	2	Yes	1D	45D	20,000	\$/Unit	1D	1	RENO Q...	Market		1
Two Be...	Occupied	3	No				\$/Unit				Market		4
Two Be...	Vacant	3	No				\$/Unit	1D	1	Two Bed...	Market		2

Unit Exceptions: 0 >

Add the following Unit Mix & Exceptions assumptions:

- One Bedroom – Vacant
 - Start Absorption: 1 Day
 - Absorption Period: 1 Month
 - Leasing Assumption: One Bedroom
- Two Bedroom Units - Vacant
 - Start Absorption: 1 Day
 - Absorption Period: 1 Month
 - Leasing Assumption: Two Bedroom RLA

Rollover Assumptions

Upon the existing leases expiring or after the absorbed units lease term select the leasing assumption to apply during future lease terms. Select how VAL is to calculate the Leasing Assumption based on the Upon Expiration drop down menu.

Upon Expiration

The Upon Expiration field defines how VAL will calculate the rollover assumption when the contractual unit expires. Choose from one of the options below:

- **Market:** Rollover assumptions will calculate based on the renewal probability calculating the weighted average of the new and renewal rates.
- **Renew:** Assumes 100% renewal probability and will calculate the renewal rates in the rollover assumptions for the initial rollover lease term.
- **Vacate:** Assumes a 0% renewal probability and will calculate the new rates in the rollover assumptions for the initial rollover lease term.



Roll-up By Unit Type & Occupancy Status AND:
☐ Unit Sub Type
☒ Building
☐ Avg \$F/Unit
☐ Floor

Assumptions to Apply to the RollUps: v

Unit Type	Occupancy Status	Buil...	Renovation Cost Assumptions <				Absorption Assumptions <			Rollover Assumptions <		# of Units	
			Reno?	Start Reno	Reno Period (#D or #M)	Reno Cost	UoM	Start Absorption	Absorption Period (#M)	Leasing Assumption	Upon Expiration		Leasing Assumption
One Be...	Occupied	1	No				\$/Unit				Market	One Bed...	7
One Be...	Vacant	1	No				\$/Unit	1D	1	One Bed...	Market	One Bed...	1
One Be...	Occupied	2	Yes	1D	45D	20,000	\$/Unit	1D		RENO Q...	Market	RENO Q...	5
One Be...	Vacant	2	Yes	1D	45D	20,000	\$/Unit	1D	1	RENO Q...	Market	RENO Q...	1
Two Be...	Occupied	3	No				\$/Unit				Market	Two Bed...	4
Two Be...	Vacant	3	No				\$/Unit	1D	1	Two Bed...	Market	Two Bed...	2

Unit Exceptions: 0 >

Add the following Unit Mix & Exceptions assumptions:

- One Bedroom – One Bedroom RLA
- One Bedroom Renovated Units – RENO One Bedroom RLA
- Two Bedroom – Two Bedroom RLA

Property Cash Flow

Cash Flow

MAIN PERIOD 1 DETAIL ALL PERIODS DETAIL

Show data: Annual Sort Expenses: As Entered Show figures in '000s: ☒ No

For the Years Ending	Year 1 Dec-2023	Year 2 Dec-2024	Year 3 Dec-2025	Year 4 Dec-2026	Year 5 Dec-2027	Year 6 Dec-2028	Year 7 Dec-2029	Year 8 Dec-2030	Year 9 Dec-2031	Year 10 Dec-2032	Year 11 Dec-2033
Income											
Potential Rental Income											
One Bedroom	642,492	809,844	825,567	841,893	864,238	889,893	916,289	943,468	971,453	1,000,268	1,029,937
Two Bedroom	360,667	474,188	483,566	493,129	508,482	523,594	539,127	555,120	571,587	588,542	606,001
Total Potential Rental Inco...	1,003,159	1,284,032	1,309,133	1,335,022	1,372,720	1,413,487	1,455,416	1,498,587	1,543,039	1,588,810	1,635,938
Downtime/Vacancy	(38,200)	(29,009)	(14,677)	(14,970)	(13,802)	(15,882)	(16,358)	(16,849)	(17,354)	(17,875)	(18,411)
Concessions	(56,440)	(47,777)	(42,460)	(43,278)	(46,258)	(47,645)	(49,075)	(50,547)	(52,063)	(53,625)	(55,234)
Base Rental Income	908,519	1,207,247	1,251,996	1,276,773	1,312,661	1,349,960	1,389,983	1,431,191	1,473,622	1,517,310	1,562,293
Misc. Income	87,682	112,030	116,073	118,533	121,895	125,386	129,109	132,943	136,891	140,956	145,142
Total Potential Gross Income	996,201	1,319,276	1,368,069	1,395,306	1,434,556	1,475,346	1,519,092	1,564,135	1,610,513	1,658,266	1,707,435
Vacancy Loss	(13,520)	(38,405)	(54,461)	(55,544)	(58,616)	(58,680)	(60,414)	(62,200)	(64,039)	(65,932)	(67,881)
Collection Loss	(9,962)	(13,193)	(13,681)	(13,953)	(14,346)	(14,753)	(15,191)	(15,641)	(16,105)	(16,583)	(17,074)
Effective Gross Income	972,718	1,267,678	1,299,928	1,325,809	1,361,594	1,401,913	1,443,487	1,486,293	1,530,369	1,575,751	1,622,480
Expenses											
Utilities	75,000	77,250	79,568	81,955	84,413	86,946	89,554	92,241	95,008	97,858	100,794
Repairs & Maintenance	75,000	77,250	79,568	81,955	84,413	86,946	89,554	92,241	95,008	97,858	100,794
Real Estate Taxes	190,000	193,800	197,676	201,630	205,662	209,775	213,971	218,250	222,615	227,068	231,609
Management Fee	29,182	38,030	38,998	39,774	40,848	42,057	43,305	44,589	45,911	47,273	48,674
Total Operating Expenses	369,182	386,330	395,809	405,313	415,336	425,724	436,383	447,320	458,542	470,056	481,871
Net Operating Income	603,537	881,348	904,119	920,497	946,258	976,189	1,007,104	1,038,973	1,071,827	1,105,695	1,140,609
Leasing & Capital Costs											
Leasing Costs	254,620	192,597	136,333	124,529	143,275	147,573	152,000	156,560	161,257	166,095	171,078
Capital Expenses	6,000	6,180	6,365	6,556	6,753	6,956	7,164	7,379	7,601	7,829	8,064
Total Leasing & Capital Costs	260,620	198,777	142,698	131,086	150,028	154,529	159,165	163,940	168,858	173,924	179,141
Net Cash Flow	342,917	682,571	761,421	789,411	796,230	821,660	847,939	875,033	902,969	931,772	961,468

Rent Roll Mark to Market Report

Rent Roll

RENT ROLL

Mark to Market

☒ On

Select On.

In place loss to lease

Unit Type	# of Units	% of Total (# of Units)	Avg SF/Unit	Total SF	% of Total (\$F)	% Occupied (# of Units)	Occupied		RLA Market Rent (As of Reporting Start Date)		Mark-to-Market (RLA Market Rent vs. Occup- 1 Rent)		
							Avg Monthly I (\$/Unit)	Avg Monthly R (\$/SF)	Avg Monthly Rent (\$/Unit)	Avg Monthly Rent (\$/SF)	(Above) Below Market (\$/Unit)	(Above) Below Market (\$/SF)	(Above) Below Market %
One Bedroom	14	70.0%	798	11,175	59.1%	85.7%	3,181	3.97	4,767	5.95	1,585	1.98	49.8%
Two Bedroom	6	30.0%	1,290	7,740	40.9%	66.7%	4,170	3.23	6,500	5.04	2,330	1.81	55.9%
Total / Wtd. Avg	20	100.0%	946	18,915	100.0%	80.0%	3,429	3.71	5,200	5.63	1,771	1.92	51.7%

Valuation

Create an unlimited number of valuations. VAL supports the following valuation methods:

- DCF
- Direct Capitalization
- Direct Entry



Property Valuation Unit REIS Data														Helpful Hints ?		L ?		B ?		T ?		ADD VALUATION	
Use as Default	Valuation		Valuation Description	Valuation As of Date	Valuation Method	NOI to Cap	Capitalization Rate (%)	Discount Rate (%)	Hold Period (Yrs)	Capitalization Year	Residual Value Adjustments	Cost of Sales											
	Amount	Per UoM										Amount	UoM										
Yes	11,570,178	578,509 / Unit	DCF	Analysis Start	DCF	NOI	7.00	9.00	10	11	None	1.00	% of Residual										
No	10,045,769	502,288 / Unit	Stab DC	01/2025	Direct Capital...	NOI	9.00			1	None	0.00	% of Residual										
No	9,000,000	450,000 / Unit	Purchase Price	Analysis Start	Direct Entry		6.71																

Click **Add Valuation** to insert rows. Create 3 valuation sets below:

- As is DCF:
 - DCF method as of the Analysis Start Date
 - Cap Rate: 7%
 - Discount Rate: 9%
 - Hold Period: 10 years, capping year 11
 - Cost of Sale: 1% of Residual Sale
- Stabilized Direct Cap:
 - Valuation as of Date: 01/2025
 - Direct Capitalization method
 - Cap Rate: 9%
- Purchase Price
 - Direct Entry method
 - \$9,000,000 Amount

Report - Valuation: Sale Yield Matrix

Valuation

SALE YIELD MATRIX PROSPECTIVE PRESENT VALUE CASH FLOW WITH VALUATION HOLD PERIOD ANALYSIS

Valuation: DCF: Analysis Start, DCF
Cap Rate Increment (BP): 25
Discount Rate Increment (BP): 50
of Increments: 3
Show Going-In Cap Rates?: Yes

Select Valuation.

Display Going In Cap rates.

Discount Rates	Exit Cap Rate							Exit Cap Rate						
	6.25%	6.50%	6.75%	7.00%	7.25%	7.50%	7.75%	6.25%	6.50%	6.75%	7.00%	7.25%	7.50%	
7.50%	\$13,891,606	\$13,554,448	\$13,242,264	\$12,952,379	\$12,682,487	\$12,430,587	\$12,194,938	4.34%	4.45%	4.56%	4.66%	4.76%		
8.00%	\$13,366,524	\$13,044,653	\$12,746,625	\$12,469,885	\$12,212,230	\$11,971,752	\$11,746,789	4.52%	4.63%	4.73%	4.84%	4.94%		
8.50%	\$12,865,698	\$12,558,357	\$12,273,782	\$12,009,533	\$11,763,508	\$11,533,885	\$11,319,077	4.69%	4.81%	4.92%	5.03%	5.13%		
9.00%	\$12,387,871	\$12,094,340	\$11,822,552	\$11,570,178	\$11,335,209	\$11,115,904	\$10,910,748	4.87%	4.99%	5.10%	5.22%	5.32%	5.43%	5.53%
9.50%	\$11,931,852	\$11,651,453	\$11,391,824	\$11,150,739	\$10,926,282	\$10,716,788	\$10,520,809	5.06%	5.18%	5.30%	5.41%	5.52%	5.63%	5.74%
10.00%	\$11,496,524	\$11,228,612	\$10,980,545	\$10,750,198	\$10,535,737	\$10,335,573	\$10,148,323	5.25%	5.37%	5.50%	5.61%	5.73%	5.84%	5.95%
10.50%	\$11,080,826	\$10,824,794	\$10,587,726	\$10,367,592	\$10,162,640	\$9,971,351	\$9,792,403	5.45%	5.58%	5.70%	5.82%	5.94%	6.05%	6.16%

Report – Prospective Present Value Summary

Valuation

SALE YIELD MATRIX PROSPECTIVE PRESENT VALUE CASH FLOW WITH VALUATION HOLD PERIOD ANALYSIS

Valuation: DCF: Analysis Start, DCF
Discount Rate Increment (BP): 50
of Increments: 3
Residual Value Calculation

Adjust # of Increments to display.

Year	Annual CF	PV @ 7.50%	PV @ 8.00%	PV @ 8.50%	PV @ 9.00%	PV @ 9.50%	PV @ 10.00%	PV @ 10.50%
1	\$342,917	\$318,993	\$317,516	\$316,052	\$314,603	\$313,166	\$311,743	\$310,332
2	\$682,571	\$590,651	\$585,194	\$579,813	\$574,506	\$569,271	\$564,108	\$559,014
3	\$761,421	\$612,914	\$604,441	\$596,123	\$587,957	\$579,939	\$572,067	\$564,336
4	\$789,411	\$591,111	\$580,240	\$569,619	\$559,238	\$549,094	\$539,178	\$529,485
5	\$796,230	\$554,621	\$541,901	\$529,529	\$517,495	\$505,787	\$494,396	\$483,312
6	\$821,660	\$532,404	\$517,785	\$503,633	\$489,929	\$476,659	\$463,806	\$451,355
7	\$847,939	\$511,099	\$494,764	\$479,023	\$463,852	\$449,227	\$435,127	\$421,530
8	\$875,033	\$490,633	\$472,753	\$455,603	\$439,150	\$423,362	\$408,210	\$393,665
9	\$902,969	\$470,974	\$451,709	\$433,317	\$415,752	\$398,975	\$382,947	\$367,631
10	\$931,772	\$452,090	\$431,591	\$412,109	\$393,590	\$375,983	\$359,238	\$343,310
Total Cash Flows	\$7,751,923	\$5,125,490	\$4,997,895	\$4,874,820	\$4,756,072	\$4,641,464	\$4,530,819	\$4,423,971
Residual Value	\$16,131,467	\$7,826,890	\$7,471,990	\$7,134,712	\$6,814,106	\$6,509,276	\$6,219,379	\$5,943,621
DCF plus Residual Value	\$23,883,390	\$12,952,379	\$12,469,885	\$12,009,533	\$11,570,178	\$11,150,739	\$10,750,198	\$10,367,592
Rounded to Thousands	\$23,883,000	\$12,952,000	\$12,470,000	\$12,010,000	\$11,570,000	\$11,151,000	\$10,750,000	\$10,368,000
Value per Unit	\$1,194,169	\$647,619	\$623,494	\$600,477	\$578,509	\$557,537	\$537,510	\$518,380
Going-in Cap Rate		2.53%	4.66%	4.84%	5.03%	5.22%	5.41%	5.61%
Percentage Value Distribution								

Report - Investment Analysis: Investment Cash Flow

Investment Analysis

INVESTMENT CASH FLOW

RETURN SENSITIVITIES

Display data annually or monthly

Show data?
Annual

Show Levered?
No

Show figures in 000s?
No

Select As is DCF value as time zero.

Investment Period				Purchase/Start				Sale/Exit			
Start Date	Investment Period	Exit Date	Exit Costs (%)	Valuation	Cap Rate	Discount Rate	Amount	Valuation	Cap Rate	Discount Rate	Amount
Analysis Start	120M	12/2032	1.00	DCF Analysis S...	7.00	9.00	11,570,178	Residual Value...			16,294,411
Override:				Override:				Override:			

▼ For the Years Ending		Time 0 Jan-01-2023	Year 1 Dec-2023	Year 2 Dec-2024	Year 3 Dec-2025	Year 4 Dec-2026	Year 5 Dec-2027	Year 6 Dec-2028	Year 7 Dec-2029	Year 8 Dec-2030	Year 9 Dec-2031	Year 10 Dec-2032
Property Cashflows												
Net Operating Income			603,537	881,348	904,119	920,497	946,258	976,189	1,007,104	1,038,973	1,071,827	1,105,695
Total Leasing & Capital Costs			260,620	198,777	142,698	131,086	150,028	154,529	159,165	163,940	168,858	173,924
Net Cash Flow			342,917	682,571	761,421	789,411	796,230	821,660	847,939	875,033	902,969	931,772
Purchase/Sale												
Purchase/Sale		(11,570,178)	-	-	-	-	-	-	-	-	-	16,294,411
Exit Costs		-	-	-	-	-	-	-	-	-	-	(162,944)
Net Proceeds		(11,570,178)	-	-	-	-	-	-	-	-	-	16,131,467
Cash Flow Available for Distribution IRR/MOC												
Total Unlevered Cash Flow	9.00% / 2.06x	(11,570,178)	342,917	682,571	761,421	789,411	796,230	821,660	847,939	875,033	902,969	17,063,238
Unlevered Cash On Cash		-	2.96%	5.90%	6.58%	6.82%	6.88%	7.10%	7.33%	7.56%	7.80%	8.05%

Investment Analysis: Return Sensitivities

Investment Analysis

INVESTMENT CASH FLOW

RETURN SENSITIVITIES

Investment Period				Purchase/Start				
Start Date	Investment Period	Exit Date	Exit Costs (%)	Valuation	Cap Rate	Discount Rate	Amount	Valuation
Analysis Start	120M	12/2032	1.00	DCF Analysis...	7.00	9.00	11,570,178	Residual Value...
				Override:				Override:

Sale/Exit Cap Rate (%)	Investment Period (Mos)						
	UNLEVERED IRR				UNLEVERED Equity Multiple (MOC)		
	108	120	132		108	120	132
6.00%	10.42%	10.25%	11.48%		2.17x	2.30x	2.77x
6.50%	9.67%	9.59%	10.87%		2.04x	2.17x	2.61x
7.00%	8.99%	9.00%	10.32%		1.94x	2.06x	2.48x
7.50%	8.37%	8.46%	9.82%		1.85x	1.97x	2.36x
8.00%	7.80%	7.96%	9.36%		1.77x	1.89x	2.26x

Purchase/Start Value	Investment Period (Mos)						
	UNLEVERED IRR				UNLEVERED Equity Multiple (MOC)		
	108	120	132		108	120	132
9,570,178	11.83%	11.62%	12.76%		2.35x	2.50x	3.00x
10,570,178	10.33%	10.23%	11.47%		2.12x	2.26x	2.71x
11,570,178	8.99%	9.00%	10.32%		1.94x	2.06x	2.48x
12,570,178	7.79%	7.89%	9.29%		1.79x	1.90x	2.28x
13,570,178	6.71%	6.89%	8.36%		1.65x	1.76x	2.11x

Debt

Create up to 5 loans in VAL. Include or exclude debt to display results by selecting Yes or No in the Loan In Use field.

Refinance Loan: A refinance loan is available as the 6th loan which is used to pay off all of the loans in the capital stack that are “in use”. The pay-off date (or funding date) occurs on the Note Date of the Refinance Loan.

Loan Testing: Select Loan Sizing to run cumulative or individual tests.

- Individual Test:
 - Max Loan Amount
- Cumulative Test:
 - Max LTV
 - Min DSCR (Actual Constant)
 - Min DSCR (Test Constant)
 - Min Debt Yield



Activate Loan Sizing to enable VAL to calculate the Note Amount.

Debt

Loan In Use?	Lien Priority	Loan Name	Loan Number	Note Holder	Loan Sizing	Note Amount	Loan Term	Amortization Term	IO Periods	Interest Rate (%)	Accrual Method	Note Date	First Payment Date	Maturity Date
Yes	1	Financing			<input checked="" type="checkbox"/>	6,177,948	10Y	30Y		5.0000	30/360	Analysis Start	02/2023	01/2023
No	-				<input type="checkbox"/>						30/360		02/2023	01/2023
No	-				<input type="checkbox"/>						30/360		02/2023	01/2023
No	-				<input type="checkbox"/>						30/360		02/2023	01/2023
No	-				<input type="checkbox"/>						30/360		02/2023	01/2023
No	Refi				<input type="checkbox"/>						30/360	01/2023	02/2023	01/2023

Loan Name	Loan Sizing Tests						Loan Sizing Test Parameters				Results	
	Max Loan Amount	Max LTV	Min DSCR (Actual Constant)	Min DSCR (Test Constant)	Min Debt Yield (%)	Valuation	NOI/NCF	NOI/NCF As Of Date	NOI/NCF # Months	Test Constant (%)	Calculated Loan Amount	Cumulative Loan
Financing	<input type="checkbox"/>	<input checked="" type="checkbox"/> 65.00	<input checked="" type="checkbox"/> 1.35	<input type="checkbox"/>	<input checked="" type="checkbox"/> 7.00	As is DCF, An...	NOI Forward	Analysis Start	12		6,177,948	6,177,948

Enter below inputs for **Debt**:

- Loan Name: Financing
- Loan Sizing: Yes
- Loan Term: 10 Years
- Amortization Schedule: 30 Years
- Interest Rate: 5%
- Accrual Method: 30/360
- Note Date: 1/2023

Enter below inputs for **Loan Sizing**:

- Max LTV: 65
- Min DSCR (Actual Constant): 1.35
- Min Debt Yield: 7%
- Valuation: As is DCF
- NOI/NCF: NOI Forward 12 Months

Debt Report – Schedule Amortization Table

Debt												
1 - FINANCING												
Scheduled Amortization Table												
Loan Name: Financing												
Month	Payment Date	Accrual Period Begin Date	Accrual Period End Date	Days	Interest Rate	Beginning Balance	Interest	Principal	Total P&I	Balloon Payment	Ending Balance	Prepayment/Exit Fee Applicable
1	Feb-01-2023	Jan-01-2023	Jan-31-2023	30	5.0000%	6,999,989.88	28,916.62	8,338.74	37,255.37	-	6,931,651.14	-
2	Mar-01-2023	Feb-01-2023	Feb-28-2023	30	5.0000%	6,931,651.14	28,881.88	8,373.49	37,255.37	-	6,923,277.65	-
3	Apr-01-2023	Mar-01-2023	Mar-31-2023	30	5.0000%	6,923,277.65	28,846.99	8,408.38	37,255.37	-	6,914,869.27	-
4	May-01-2023	Apr-01-2023	Apr-30-2023	30	5.0000%	6,914,869.27	28,811.96	8,443.41	37,255.37	-	6,906,425.86	-
5	Jun-01-2023	May-01-2023	May-31-2023	30	5.0000%	6,906,425.86	28,776.77	8,478.59	37,255.37	-	6,897,947.27	-
6	Jul-01-2023	Jun-01-2023	Jun-30-2023	30	5.0000%	6,897,947.27	28,741.45	8,513.92	37,255.37	-	6,889,433.35	-
7	Aug-01-2023	Jul-01-2023	Jul-31-2023	30	5.0000%	6,889,433.35	28,705.97	8,549.39	37,255.37	-	6,880,883.96	-
8	Sep-01-2023	Aug-01-2023	Aug-31-2023	30	5.0000%	6,880,883.96	28,670.35	8,585.02	37,255.37	-	6,872,298.94	-
9	Oct-01-2023	Sep-01-2023	Sep-30-2023	30	5.0000%	6,872,298.94	28,634.58	8,620.79	37,255.37	-	6,863,678.15	-
10	Nov-01-2023	Oct-01-2023	Oct-31-2023	30	5.0000%	6,863,678.15	28,598.66	8,656.71	37,255.37	-	6,855,021.45	-
11	Dec-01-2023	Nov-01-2023	Nov-30-2023	30	5.0000%	6,855,021.45	28,562.59	8,692.78	37,255.37	-	6,846,328.67	-
12	Jan-01-2024	Dec-01-2023	Dec-31-2023	30	5.0000%	6,846,328.67	28,526.37	8,729.00	37,255.37	-	6,837,599.67	-
13	Feb-01-2024	Jan-01-2024	Jan-31-2024	30	5.0000%	6,837,599.67	28,490.00	8,765.37	37,255.37	-	6,828,834.31	-
14	Mar-01-2024	Feb-01-2024	Feb-29-2024	30	5.0000%	6,828,834.31	28,453.48	8,801.89	37,255.37	-	6,820,032.42	-
15	Apr-01-2024	Mar-01-2024	Mar-31-2024	30	5.0000%	6,820,032.42	28,416.80	8,838.56	37,255.37	-	6,811,193.85	-
16	May-01-2024	Apr-01-2024	Apr-30-2024	30	5.0000%	6,811,193.85	28,379.97	8,875.39	37,255.37	-	6,802,318.46	-
17	Jun-01-2024	May-01-2024	May-31-2024	30	5.0000%	6,802,318.46	28,342.99	8,912.37	37,255.37	-	6,793,406.09	-
18	Jul-01-2024	Jun-01-2024	Jun-30-2024	30	5.0000%	6,793,406.09	28,305.86	8,949.51	37,255.37	-	6,784,456.58	-

Report Investment Analysis – Levered IRR

Investment Analysis

INVESTMENT CASH FLOW

RETURN SENSITIVITIES

Select YES to Show Levered

Show data?

Annual

Show Levered?


Yes

Show figures in 000s?

No

Investment Period				Purchase/Start				Sale/Exit			
Start Date	Investment Period	Exit Date	Exit Costs (%)	Valuation	Cap Rate	Discount Rate	Amount	Valuation	Cap Rate	Discount Rate	Amount
Analysis Start	120M	12/2032	1.00	DCF Analysis S...	7.00	9.00	11,570,178	Residual Value...			16.23
Override:				Override:				Override:			
For the Years Ending	Time 0 Jan-01-2023	Year 1 Dec-2023	Year 2 Dec-2024	Year 3 Dec-2025	Year 4 Dec-2026	Year 5 Dec-2027	Year 6 Dec-2028	Year 7 Dec-2029	Year 8 Dec-2030	Year 9 Dec-2031	Year 10 Dec-2032
Property Cashflows											
Debt Service											
Financing											
Principal		93,661	107,182	112,666	118,480	124,489	130,858	137,553	144,591	151,988	159,764
Interest		316,148	339,882	354,399	368,634	382,575	396,206	409,511	422,474	435,076	447,300
Total P&I		409,809	447,064	467,064	487,114	506,904	527,064	547,064	566,904	586,904	606,904
Total Debt Service		409,809	447,064	467,064	487,114	506,904	527,064	547,064	566,904	586,904	606,904
Cash Flow After Debt Service		(66,892)	235,506	314,357	342,346	369,166	395,856	422,474	449,064	475,656	502,248
Credit Metrics											
Financing											
Ending Balance		6,846,329	6,739,147	6,626,481	6,508,051	6,383,562	6,252,704	6,115,151	5,970,560	5,818,572	5,658,808
Ending Balance \$/Unit		342,316	336,957	331,324	325,403	319,178	312,635	305,758	298,528	290,929	282,940
DSCR (NOI)		1.35	1.97	2.02	2.06	2.12	2.18	2.25	2.32	2.40	2.47
DSCR (NCF)		0.77	1.53	1.70	1.77	1.78	1.84	1.90	1.96	2.02	2.08
Debt Yield (NOI)		8.82%	13.08%	13.64%	14.14%	14.62%	15.01%	15.47%	15.80%	16.12%	16.44%
Debt Yield (NCF)		5.01%	10.13%	11.49%	12.13%	12.47%	12.74%	13.01%	13.28%	13.55%	13.82%
LTV (Using Purchase Price)		59.17%	58.25%	57.27%	56.25%	55.17%	54.04%	52.85%	51.60%	50.29%	48.91%
Purchase/Sale											
Loan Proceeds & Repayment											
Cash Flow Available for Distribution	IRR/MOC										
Total Unlevered Cash Flow	9.00% / 2.06%	(11,570,178)	342,917	682,571	761,421	789,411	796,230	821,660	847,939	875,033	902,969
Unlevered Cash On Cash		-	2.96%	5.90%	6.58%	6.82%	6.88%	7.10%	7.33%	7.56%	7.80%
Total Levered Cash Flow	13.01% / 2.98%	(4,630,188)	(66,892)	235,506	314,357	342,346	369,166	395,856	422,474	449,064	475,656
Levered Cash On Cash		-	(1.44%)	5.09%	6.79%	7.39%	7.54%	8.09%	8.66%	9.24%	9.85%

Settings & Report Packages


Reports

All Reports

Report Management

Settings & Package

Shared Reports

Report Settings & Package

Reporting Start Date

01/2023

Reporting Period

Years

Report Package Contents

☐ Select All

☐ Cash Flow

☒ Main
☐ PSF Period 1
☐ PSF All Periods

☒ Investment Analysis

☒ Investment Cash Flow
☒ Return Sensitivities

☐ Debt

☐ Amort Table Financing

☐ Valuation

☒ Sale Yield Matrix
☒ Prospective Present Value

CREATE PACKAGE

☐ Cash Flow with Valuation
☐ Hold Period Analysis
☒ Rent Roll
☒ Rent Roll
☐ Rollover
☒ Summary
☐ Individual Rollover Assumption
☐ Market Rent Matrix w/ Ind. Growth
☒ Occupancy
☐ Assumptions Check
☐ Vacancy and Collection Loss
☐ Misc. Income, Expenses, and CapEx

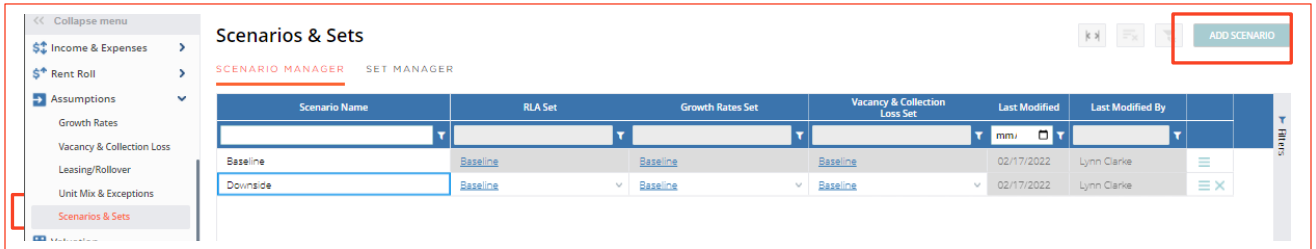
Select reports to include in package and click **Create Package.**



Report package in Excel format will be emailed to user with each report located in tabs.

Scenarios & Sets

Combine sets of assumptions to create named scenarios by selecting Scenarios & Sets from the navigation pane. Create different variations of users' baseline set of rollover assumptions, growth rates, and vacancy and collection loss to run different scenarios in the model.

Scenario Name	RLA Set	Growth Rates Set	Vacancy & Collection Loss Set	Last Modified	Last Modified By
Baseline	Baseline	Baseline	Baseline	02/17/2022	Lynn Clarke
Downside	Baseline	Baseline	Baseline	02/17/2022	Lynn Clarke

- From the Navigation pane select **Scenarios & Sets**.
- Click **Add Scenario** (located in upper right-hand corner).
- Name scenario **Downside** by typing in the red box in the new row.

RLA Set Rollover Scenarios

VAL provides ability to easily run alternative rollover scenarios in the model to test the robustness of results in the presence of uncertainty.



Scenarios & Sets

SCENARIO MANAGER
SET MANAGER

Name	RLA Set
Baseline	Baseline
Downside	Baseline
	Baseline
	Add new

- From the RLA set drop down menu select **Add New**.
- Name RLA Set **Downside RLA**.

Rollover Assumptions

RLA
RLA VARIABLES

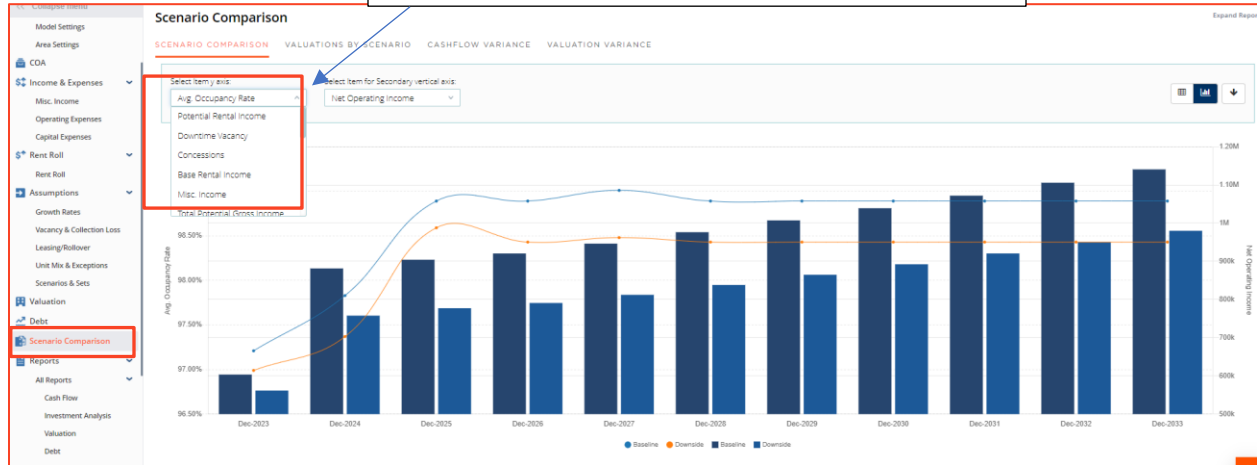
Set Name	RLA Name	Active?	Renewal Probability	Term	Downtime (Mos)	Market Rents €			
						New	New UoM	Renew	Renew UoM
Downside RLA	Office RLA	AND	60.0%	60M	8	20.00	\$/SF/year	18.00	\$/SF/year
Downside RLA	Retail RLA	AND	60.0%	60M	12	12.00	\$/SF/year	10.00	\$/SF/year

- Update the following assumptions:
 - One Bedroom
 - Market Rent: \$4,000
 - RENO One Bedroom
 - Market Rent: \$4500
 - Two Bedroom
 - Downtime: 20 Days
 - Market Rent: \$6,000

Scenario Comparison Reports

Scenario Comparison

Select what data attribute to display on the graph.

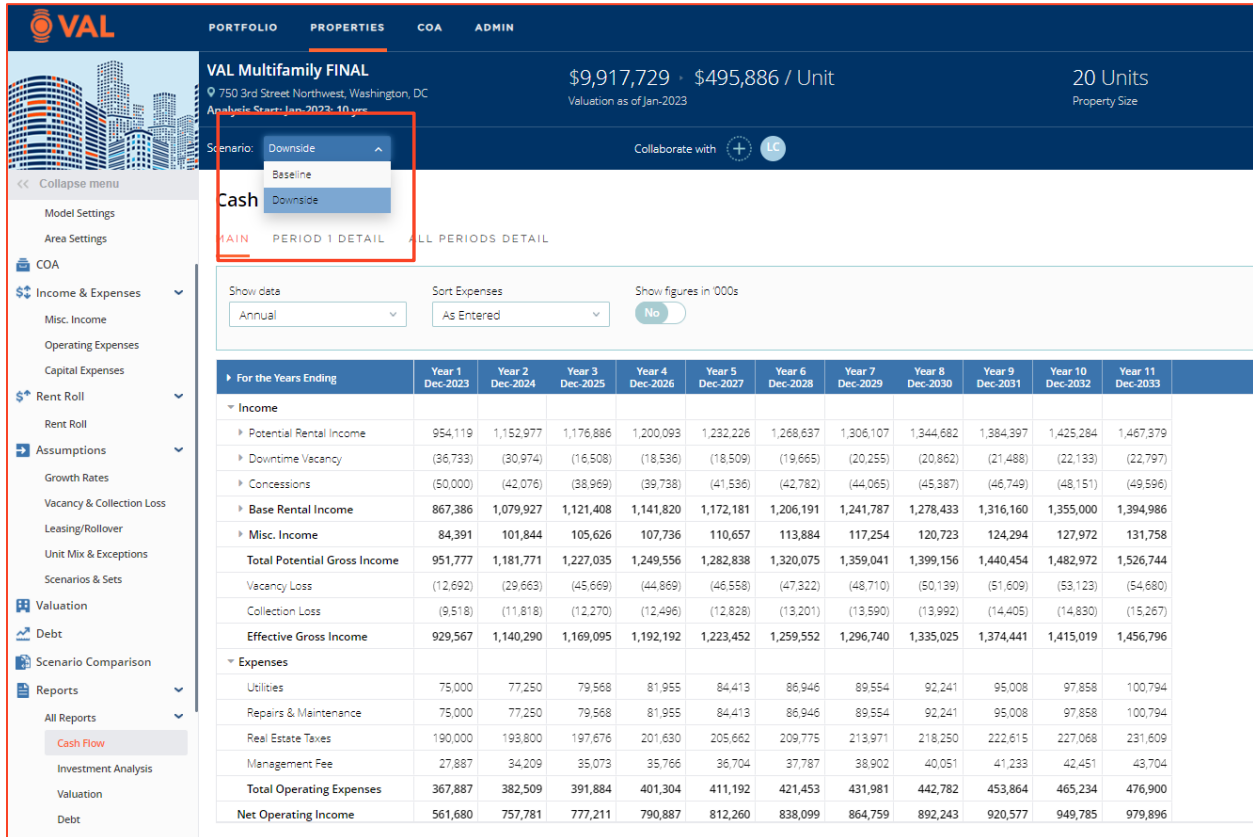


Cashflow Variance

Scenario Comparison		CASHFLOW VARIANCE																Expand Report	
Show data		Scenario 1				Scenario 2				Scenario 1				Scenario 2					
Annual		Baseline				Downside				Baseline				Downside					
For the Years Ending		Year 1 Dec-2023				Year 2 Dec-2024				Year 3 Dec-2025				Year 4 Dec-2026					
		Scenario 1	Scenario 2	Variance Amount	Variance %	Scenario 1	Scenario 2	Variance Amount	Variance %	Scenario 1	Scenario 2	Variance Amount	Variance %	Scenario 1	Scenario 2	Variance Amount	Variance %		
Income																			
Potential Rental Income		1,003,159	954,119	(49,040)	(4.89%)	1,284,032	1,152,977	(131,055)	(10.21%)	1,309,133	1,176,886	(132,247)	(10.10%)	1,335,022	1,200,093	(134,929)	(10.11%)	1,372,720	
One Bedroom		642,492	611,485	(31,007)	(4.83%)	809,844	715,313	(94,531)	(11.67%)	825,567	729,195	(96,372)	(11.67%)	841,893	743,616	(98,277)	(11.67%)	864,238	
Two Bedroom		360,667	342,634	(18,033)	(5.00%)	474,188	437,664	(36,524)	(7.70%)	483,566	447,690	(35,875)	(7.42%)	493,129	456,478	(36,651)	(7.43%)	508,482	
Total Potential Rental Income		1,003,159	954,119	(49,040)	(4.89%)	1,284,032	1,152,977	(131,055)	(10.21%)	1,309,133	1,176,886	(132,247)	(10.10%)	1,335,022	1,200,093	(134,929)	(10.11%)	1,372,720	
Downtime Vacancy		(38,200)	(36,733)	1,467	(3.84%)	(29,009)	(30,974)	(1,965)	6.77%	(14,677)	(16,508)	(1,831)	12.48%	(14,970)	(18,536)	(3,566)	23.82%	(13,802)	
Concessions		(56,440)	(50,000)	6,440	(11.41%)	(47,777)	(42,076)	5,701	(11.93%)	(42,460)	(38,969)	3,490	(8.22%)	(43,278)	(39,738)	3,540	(8.18%)	(46,258)	
Base Rental Income		908,519	867,386	(41,133)	(4.53%)	1,207,247	1,079,927	(127,320)	(10.55%)	1,251,996	1,121,408	(130,588)	(10.43%)	1,276,773	1,141,820	(134,954)	(10.57%)	1,312,661	
Misc. Income		87,682	84,391	(3,291)	(3.75%)	112,030	101,844	(10,186)	(9.09%)	116,073	105,626	(10,447)	(9.00%)	118,533	107,736	(10,796)	(9.11%)	121,895	
Total Potential Gross Income		996,201	951,777	(44,424)	(4.46%)	1,319,276	1,181,771	(137,505)	(10.42%)	1,368,069	1,227,035	(141,035)	(10.31%)	1,395,306	1,249,556	(145,750)	(10.45%)	1,434,556	
Vacancy Loss		(13,520)	(12,692)	828	(6.12%)	(38,405)	(29,663)	8,742	(22.76%)	(54,461)	(45,669)	8,791	(16.14%)	(55,544)	(44,869)	10,675	(19.22%)	(58,616)	
Collection Loss		(9,962)	(9,518)	444	(4.46%)	(13,193)	(11,818)	1,375	(10.42%)	(13,681)	(12,270)	1,410	(10.31%)	(13,953)	(12,496)	1,458	(10.45%)	(14,346)	
Effective Gross Income		972,718	929,567	(43,152)	(4.44%)	1,267,678	1,140,290	(127,388)	(10.05%)	1,299,928	1,169,095	(130,833)	(10.00%)	1,325,809	1,192,192	(133,618)	(10.08%)	1,361,594	

Toggling Scenarios in Reports

Select Downside scenario from the drop down menu to view the impact on any report in VAL.



The screenshot displays the VAL Multifamily FINAL report interface. The top navigation bar includes tabs for PORTFOLIO, PROPERTIES, COA, and ADMIN. The main header shows the property name, address (750 3rd Street Northwest, Washington, DC), analysis start date (Jan-2023), 10-year analysis period, valuation (\$9,917,729), unit count (20 Units), and property size. A dropdown menu for the Scenario is open, showing options for Baseline and Downside, with Downside selected. The left sidebar contains a navigation menu with categories like Model Settings, Area Settings, COA, Income & Expenses, Rent Roll, Assumptions, Valuation, Debt, Scenario Comparison, and Reports. The main content area displays a table of financial data for the years ending Dec-2023 through Dec-2033. The table is divided into sections for Income, Expenses, and Net Operating Income. The 'Downside' scenario is highlighted in the table header.

For the Years Ending	Year 1 Dec-2023	Year 2 Dec-2024	Year 3 Dec-2025	Year 4 Dec-2026	Year 5 Dec-2027	Year 6 Dec-2028	Year 7 Dec-2029	Year 8 Dec-2030	Year 9 Dec-2031	Year 10 Dec-2032	Year 11 Dec-2033
Income											
Potential Rental Income	954,119	1,152,977	1,176,886	1,200,093	1,232,226	1,268,637	1,306,107	1,344,682	1,384,397	1,425,284	1,467,379
Downtime Vacancy	(36,733)	(30,974)	(16,508)	(18,536)	(18,509)	(19,665)	(20,255)	(20,862)	(21,488)	(22,133)	(22,797)
Concessions	(50,000)	(42,076)	(38,969)	(39,738)	(41,536)	(42,782)	(44,065)	(45,387)	(46,749)	(48,151)	(49,596)
Base Rental Income	867,386	1,079,927	1,121,408	1,141,820	1,172,181	1,206,191	1,241,787	1,278,433	1,316,160	1,355,000	1,394,986
Misc. Income	84,391	101,844	105,626	107,736	110,657	113,884	117,254	120,723	124,294	127,972	131,758
Total Potential Gross Income	951,777	1,181,771	1,227,035	1,249,556	1,282,838	1,320,075	1,359,041	1,399,156	1,440,454	1,482,972	1,526,744
Vacancy Loss	(12,692)	(29,663)	(45,669)	(44,869)	(46,558)	(47,322)	(48,710)	(50,139)	(51,609)	(53,123)	(54,680)
Collection Loss	(9,518)	(11,818)	(12,270)	(12,496)	(12,828)	(13,201)	(13,590)	(13,992)	(14,405)	(14,830)	(15,267)
Effective Gross Income	929,567	1,140,290	1,169,095	1,192,192	1,223,452	1,259,552	1,296,740	1,335,025	1,374,441	1,415,019	1,456,796
Expenses											
Utilities	75,000	77,250	79,568	81,955	84,413	86,946	89,554	92,241	95,008	97,858	100,794
Repairs & Maintenance	75,000	77,250	79,568	81,955	84,413	86,946	89,554	92,241	95,008	97,858	100,794
Real Estate Taxes	190,000	193,800	197,676	201,630	205,662	209,775	213,971	218,250	222,615	227,068	231,609
Management Fee	27,887	34,209	35,073	35,766	36,704	37,787	38,902	40,051	41,233	42,451	43,704
Total Operating Expenses	367,887	382,509	391,884	401,304	411,192	421,453	431,981	442,782	453,864	465,234	476,900
Net Operating Income	561,680	757,781	777,211	790,887	812,260	838,099	864,759	892,243	920,577	949,785	979,896