

## **THREE TIER DEVELOPMENT/VALUE ADD WATERFALL MODEL - overview**






### **Model Overview**

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This is a 3-tier waterfall distribution model that assumes the same waterfall calculation methods on capital and cash flow distributions. The preferred return and IRR hurdles can be calculated arithmetically or geometrically. Model allows for the GP to share pari-passu per its equity share or in promote only. The model allows both quarterly and monthly cash flow input. Up to 10 years of cash flow input is allowed. Detailed direction and explanation will appear when each input cell is selected on the "Inputs" worksheet.

### **Model Keys / Notes**

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1.  Input Cells
2.  Drop Down Input Cells
3.  Can Change Title
4. Input and calculation direction will appear when Input, Drop Down and Change Title cells are selected.
5. Password to unlock worksheets is "drg". We recommend that only advanced Excel users unlock worksheets.

### **Questions**

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All questions relating to this model should be emailed to [info@dividendrealtygroup.com](mailto:info@dividendrealtygroup.com).

### **Disclaimer**

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While Dividend Realty Group, LLC does not doubt the accuracy of the formulas and calculations in this model, it makes no guarantee, warranty, or representation about it. It is your responsibility to independently confirm its accuracy and completeness. Any projections, opinions, assumptions, or estimates used are for example only and do not represent the current or future performance of any real estate project. The value of any real estate project to you depends on your calculations, assumptions, tax and other factors which should be evaluated by your tax, financial and legal advisors. You and your advisors should conduct a careful, independent investigation of this model and the real estate project to determine to your satisfaction the suitability of the model and real estate project for your needs.

**WATERFALL MODEL INPUTS & RESULTS****Waterfall Test Deal**

Deal Name	Waterfall Test Deal
General Partner Name	GP Investor
Limited Partner Name	LP Investor

Deal Start Date	Jan-09
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AM Fee	\$2,500 Per Month	End Period - 36
Other Fee #1		Not In Use
Other Fee #2		Not In Use

GP Investor Equity Share	10.00%
LP Investor Equity Share	90.00%
Total Equity Share	100.00%

Preferred Return	10.00%
Promote #1	25.00%
IRR Hurdle #1	15.00%
Promote #2	35.00%
IRR Hurdle #2	20.00%
Promote #3	45.00%

Pref/IRR Hurdle Calculation	Geometric
After Pref GP Distributions	Promote + Equity Share
Cash Flows Periods	Quarterly

Profit/Return Table	Net Profit	Peak Equity	IRR	EM
Project Level	21,434,795	7,555,267	30.93%	3.64x
After Fees (before promote)	21,164,795	7,817,767	29.94%	3.52x
GP Investor	8,031,048	781,777	52.17%	10.58x
LP Investor	13,133,747	7,035,990	24.67%	2.74x

**Notes**

Input any notes in these cells




# Equity Participation w/ Waterfalls

Deal: Waterfall Test Deal

## Quarterly Cash Flows

Date Month	TOTALS	Jan-09 0	Apr-12 13	Jul-12 14	Oct-12 15	Jan-13 16	Apr-13 17	Jul-13 18	Oct-13 19	Jan-14 20	Apr-14 21	Jul-14 22	Oct-14 23	Jan-15 24
<b>IRRs / Share</b>														
Project Level Cash Flow	30.93%	21,434,795	(406,000)	(94,313)	(94,313)	(94,313)	(112,313)	(112,313)	(112,313)	(94,313)	(94,313)	(94,313)	(2,753,192)	(224,282)
AM Fee		(270,000)		(7,500)	(7,500)	(7,500)	(7,500)	(7,500)	(7,500)	(7,500)	(7,500)	(7,500)	(7,500)	(7,500)
Other Fee #1		0	0	0	0	0	0	0	0	0	0	0	0	0
Other Fee #2		0	0	0	0	0	0	0	0	0	0	0	0	0
<b>After Fees Cash Flow</b>	<b>29.94%</b>	<b>21,164,795</b>	<b>(406,000)</b>	<b>(101,813)</b>	<b>(101,813)</b>	<b>(101,813)</b>	<b>(119,813)</b>	<b>(119,813)</b>	<b>(119,813)</b>	<b>(101,813)</b>	<b>(101,813)</b>	<b>(101,813)</b>	<b>(2,760,692)</b>	<b>(231,782)</b>
<b>Equity Capital Account Plus 10% Pref</b>														
Starting Balance		0	1,455,936	1,592,857	1,733,079	1,876,683	2,041,750	2,210,797	2,383,921	2,543,219	2,706,358	2,873,432	3,044,534	5,878,641
Required for Pref	10.00%	3,650,037	0	35,108	38,410	41,791	45,254	49,234	53,310	57,485	61,326	65,260	69,289	73,415
Received Towards Pref		(7,654,288)	0	(101,813)	(101,813)	(101,813)	(119,813)	(119,813)	(119,813)	(101,813)	(101,813)	(101,813)	(101,813)	(2,760,692)
Pref Shortfall (Add to Capital)		11,304,765	0	136,921	140,223	143,604	165,067	169,047	173,123	159,298	163,139	167,073	171,102	2,834,107
Pref Surplus (Deduct from Capital)		11,710,765	0	0	0	0	0	0	0	0	0	0	0	0
Ending Balance		406,000	1,592,857	1,733,079	1,876,683	2,041,750	2,210,797	2,383,921	2,543,219	2,706,358	2,873,432	3,044,534	5,878,641	6,252,178
Pref IRR Check	10.00%	3,650,037	(406,000)	(101,813)	(101,813)	(101,813)	(119,813)	(119,813)	(119,813)	(101,813)	(101,813)	(101,813)	(101,813)	(231,782)
<b>Hurdle #1 @ 75 / 25 until 15% IRR</b>														
Received from Pref	10.00%	3,650,037	(406,000)	(101,813)	(101,813)	(101,813)	(119,813)	(119,813)	(119,813)	(101,813)	(101,813)	(101,813)	(101,813)	(231,782)
Leftover From Pref		17,514,758	0	0	0	0	0	0	0	0	0	0	0	0
Equity Potential Claim	75%	13,136,068	0	0	0	0	0	0	0	0	0	0	0	0
Capital Balance		0	1,594,300	1,752,803	1,916,942	2,086,918	2,280,938	2,481,857	2,689,920	2,887,381	3,091,864	3,303,617	3,522,901	6,408,860
Required for Hurdle #1	15.00%	6,438,372	0	56,690	62,326	68,163	74,207	81,106	88,250	95,648	102,670	109,941	117,470	125,268
Received Towards Hurdle #1		(7,330,283)	0	(101,813)	(101,813)	(101,813)	(119,813)	(119,813)	(101,813)	(101,813)	(101,813)	(101,813)	(101,813)	(2,760,692)
Hurdle #1 Shortfall (Add to Capital)		13,768,655	0	158,503	164,139	169,976	194,020	200,919	208,063	197,461	204,483	211,754	219,283	2,885,959
Hurdle #1 Surplus (Deduct from Capital)		14,174,655	0	0	0	0	0	0	0	0	0	0	0	0
Ending Balance		406,000	1,752,803	1,916,942	2,086,918	2,280,938	2,481,857	2,689,920	2,887,381	3,091,864	3,303,617	3,522,901	6,408,860	6,868,529
Hurdle #1 IRR Check	15.00%	6,438,372	(406,000)	(101,813)	(101,813)	(101,813)	(119,813)	(119,813)	(119,813)	(101,813)	(101,813)	(101,813)	(101,813)	(231,782)
<b>Hurdle #2 @ 65 / 35 until 20% IRR</b>														
Received from Pref & Hurdle #2	15.00%	6,438,372	(406,000)	(101,813)	(101,813)	(101,813)	(119,813)	(119,813)	(119,813)	(101,813)	(101,813)	(101,813)	(101,813)	(231,782)
Leftover From Pref & Hurdle #2		13,796,978	0	0	0	0	0	0	0	0	0	0	0	0
Equity Potential Claim	65%	8,968,036	0	0	0	0	0	0	0	0	0	0	0	0
Capital Balance		0	1,742,329	1,925,395	2,117,000	2,317,539	2,545,431	2,783,950	3,033,593	3,276,878	3,531,509	3,798,015	4,076,949	7,027,769
Required for Hurdle #2	20.00%	10,119,596	0	81,254	89,791	98,727	108,079	118,707	129,830	141,472	152,818	164,692	177,121	190,129
Received Towards Hurdle #2		(6,844,640)	0	(101,813)	(101,813)	(101,813)	(119,813)	(119,813)	(101,813)	(101,813)	(101,813)	(101,813)	(101,813)	(2,760,692)
Hurdle #2 Shortfall (Add to Capital)		16,964,236	0	183,067	191,604	200,540	227,892	238,520	249,643	243,285	254,631	266,505	278,934	2,950,821
Hurdle #2 Surplus (Deduct from Capital)		17,370,236	0	0	0	0	0	0	0	0	0	0	0	0
Ending Balance		406,000	1,925,395	2,117,000	2,317,539	2,545,431	2,783,950	3,033,593	3,276,878	3,531,509	3,798,015	4,076,949	7,027,769	7,587,292
Hurdle #2 IRR Check	20.00%	10,119,596	(406,000)	(101,813)	(101,813)	(101,813)	(119,813)	(119,813)	(119,813)	(101,813)	(101,813)	(101,813)	(101,813)	(231,782)
<b>End Promote @ 55 / 45</b>														
Remaining Cash to Distribute		8,133,557	0	0	0	0	0	0	0	0	0	0	0	0
Equity Participation	55%	4,473,456	0	0	0	0	0	0	0	0	0	0	0	0
<b>Net Cash Flow to Equity</b>	<b>24.67%</b>	<b>14,593,052</b>	<b>(406,000)</b>	<b>(101,813)</b>	<b>(101,813)</b>	<b>(101,813)</b>	<b>(119,813)</b>	<b>(119,813)</b>	<b>(119,813)</b>	<b>(101,813)</b>	<b>(101,813)</b>	<b>(101,813)</b>	<b>(2,760,692)</b>	<b>(231,782)</b>
<b>Promote Cash Flow</b>														
Promote #1		929,445	0	0	0	0	0	0	0	0	0	0	0	0
Promote #2		1,982,197	0	0	0	0	0	0	0	0	0	0	0	0
Promote #3		3,660,101	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Promote</b>		<b>6,571,743</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Net Cash Flows per Partner</b>														
GP Investor --- 10.00% of Net Cash Flow to Equity + Promote	52.17%	8,031,048	(40,600)	(10,181)	(10,181)	(10,181)	(11,981)	(11,981)	(11,981)	(10,181)	(10,181)	(10,181)	(10,181)	(276,069)
LP Investor --- 90.00% of Net Cash Flow to Equity	24.67%	13,133,747	(365,400)	(91,632)	(91,632)	(91,632)	(107,832)	(107,832)	(107,832)	(91,632)	(91,632)	(91,632)	(91,632)	(208,604)
<b>Cash Flow Check</b>	<b>29.94%</b>	<b>21,164,795</b>	<b>(406,000)</b>	<b>(101,813)</b>	<b>(101,813)</b>	<b>(101,813)</b>	<b>(119,813)</b>	<b>(119,813)</b>	<b>(119,813)</b>	<b>(101,813)</b>	<b>(101,813)</b>	<b>(101,813)</b>	<b>(2,760,692)</b>	<b>(231,782)</b>

# Equity Participation w/ Waterfalls

Deal: Waterfall Test Deal

## Quarterly Cash Flows

Date Month	TOTALS	Jan-09 0	Apr-15 25	Jul-15 26	Oct-15 27	Jan-16 28	Apr-16 29	Jul-16 30	Oct-16 31	Jan-17 32	Apr-17 33	Jul-17 34	Oct-17 35	Jan-18 36
<b>IRRs / Share</b>														
Project Level Cash Flow	30.93%	21,434,795	(406,000)	(224,282)	(224,282)	(224,282)	(224,282)	(224,282)	(224,282)	(224,282)	(224,282)	(224,282)	(221,054)	9,556,859
AM Fee		(270,000)		(7,500)	(7,500)	(7,500)	(7,500)	(7,500)	(7,500)	(7,500)	(7,500)	(7,500)	(7,500)	(7,500)
Other Fee #1		0	0	0	0	0	0	0	0	0	0	0	0	0
Other Fee #2		0	0	0	0	0	0	0	0	0	0	0	0	0
<b>After Fees Cash Flow</b>	<b>29.94%</b>	<b>21,164,795</b>	<b>(406,000)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(228,554)</b>	<b>9,549,359</b>
<b>Equity Capital Account Plus 10% Pref</b>														
Starting Balance		0	6,252,178	6,634,723	7,026,493	7,427,709	7,838,600	8,259,400	8,690,346	9,131,684	9,583,665	10,046,544	10,520,585	11,002,829
Required for Pref	10.00%	3,650,037	0	150,763	159,988	169,435	179,109	189,018	199,165	209,556	220,199	231,098	242,259	253,690
Received Towards Pref		(7,654,288)	0	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(228,554)
Pref Shortfall (Add to Capital)		11,304,765	0	382,545	391,770	401,217	410,891	420,799	430,946	441,338	451,980	462,879	474,041	482,244
Pref Surplus (Deduct from Capital)		11,710,765	0	0	0	0	0	0	0	0	0	0	0	9,284,040
Ending Balance		406,000	6,634,723	7,026,493	7,427,709	7,838,600	8,259,400	8,690,346	9,131,684	9,583,665	10,046,544	10,520,585	11,002,829	1,718,789
Pref IRR Check	10.00%	3,650,037	(406,000)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(228,554)	9,549,359
<b>Hurdle #1 @ 75 / 25 until 15% IRR</b>														
Received from Pref	10.00%	3,650,037	(406,000)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(228,554)
Leftover From Pref		17,514,758	0	0	0	0	0	0	0	0	0	0	0	0
Equity Potential Claim	75%	13,136,068	0	0	0	0	0	0	0	0	0	0	0	0
Capital Balance		0	6,868,529	7,344,542	7,837,482	8,347,950	8,876,569	9,423,984	9,990,865	10,577,902	11,185,814	11,815,342	12,467,255	13,139,120
Required for Hurdle #1	15.00%	6,438,372	0	244,232	261,158	278,686	296,837	315,634	335,099	355,256	376,130	397,746	420,131	443,312
Received Towards Hurdle #1		(7,330,288)	0	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(228,554)
Hurdle #1 Shortfall (Add to Capital)		13,768,655	0	476,014	492,940	510,468	528,619	547,416	566,881	587,038	607,912	629,528	651,913	671,865
Hurdle #1 Surplus (Deduct from Capital)		14,174,655	0	0	0	0	0	0	0	0	0	0	0	9,082,157
Ending Balance		406,000	7,344,542	7,837,482	8,347,950	8,876,569	9,423,984	9,990,865	10,577,902	11,185,814	11,815,342	12,467,255	13,139,120	4,056,963
Hurdle #1 IRR Check	15.00%	6,438,372	(406,000)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(228,554)	9,549,359
<b>Hurdle #2 @ 65 / 35 until 20% IRR</b>														
Received from Pref & Hurdle #2	15.00%	6,438,372	(406,000)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(228,554)
Leftover From Pref & Hurdle #2		13,796,978	0	0	0	0	0	0	0	0	0	0	0	0
Equity Potential Claim	65%	8,968,036	0	0	0	0	0	0	0	0	0	0	0	0
Capital Balance		0	7,587,292	8,172,909	8,785,835	9,427,346	10,098,773	10,801,513	11,537,025	12,306,837	13,112,550	13,955,838	14,838,452	15,758,999
Required for Hurdle #2	20.00%	10,119,596	0	353,834	381,145	409,729	439,646	470,958	503,730	538,031	573,931	611,506	650,832	691,993
Received Towards Hurdle #2		(6,844,640)	0	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(228,554)
Hurdle #2 Shortfall (Add to Capital)		16,964,236	0	585,616	612,927	641,511	671,427	702,740	735,512	769,813	805,713	843,287	882,614	920,547
Hurdle #2 Surplus (Deduct from Capital)		17,370,236	0	0	0	0	0	0	0	0	0	0	0	8,814,436
Ending Balance		406,000	8,172,909	8,785,835	9,427,346	10,098,773	10,801,513	11,537,025	12,306,837	13,112,550	13,955,838	14,838,452	15,758,999	6,944,563
Hurdle #2 IRR Check	20.00%	10,119,596	(406,000)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(231,782)	(228,554)	9,549,359
<b>End Promote @ 55 / 45</b>														
Remaining Cash to Distribute		8,133,557	0	0	0	0	0	0	0	0	0	0	0	0
Equity Participation	55%	4,473,456	0	0	0	0	0	0	0	0	0	0	0	0
<b>Net Cash Flow to Equity</b>	<b>24.67%</b>	<b>14,593,052</b>	<b>(406,000)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(228,554)</b>	<b>9,549,359</b>
<b>Promote Cash Flow</b>														
Promote #1		929,445	0	0	0	0	0	0	0	0	0	0	0	0
Promote #2		1,982,197	0	0	0	0	0	0	0	0	0	0	0	0
Promote #3		3,660,101	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Promote</b>		<b>6,571,743</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Net Cash Flows per Partner</b>														
GP Investor --- 10.00% of Net Cash Flow to Equity + Promote	52.17%	8,031,048	(40,600)	(23,178)	(23,178)	(23,178)	(23,178)	(23,178)	(23,178)	(23,178)	(23,178)	(23,178)	(22,855)	954,936
LP Investor --- 90.00% of Net Cash Flow to Equity	24.67%	13,133,747	(365,400)	(208,604)	(208,604)	(208,604)	(208,604)	(208,604)	(208,604)	(208,604)	(208,604)	(208,604)	(205,698)	8,594,423
<b>Cash Flow Check</b>	<b>29.94%</b>	<b>21,164,795</b>	<b>(406,000)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(231,782)</b>	<b>(228,554)</b>	<b>9,549,359</b>

