

# Developer Assistant

**Important Note: Only The Yellow Boxes are Input Fields. This Optional Sheet is here to assist developers with the job of costing a project.**

(at the bottom of the page is a "Critical Path Schedule for determining estimated project completion times. Also see the "Task MGR" on the adjacent worksheet for managing and scheduling specific tasks on a daily basis)

### Construction Assumptions

Cost per Square Foot \$/Sq Ft:	100.00
Gross Building Area in Sq Ft:	10,000
Annual Inflation Rate (%):	4.00%
# of Months to Build:	12
# of Months before starting:	0
Constr. Loan Debt Ratio:	75.00%
Annual Interest Rate on Loan:	8.00%
Loan Retainage Rate:	10.00%
Other Constr. Loan Costs:	0

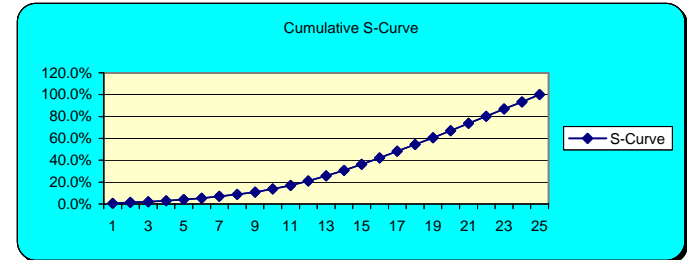
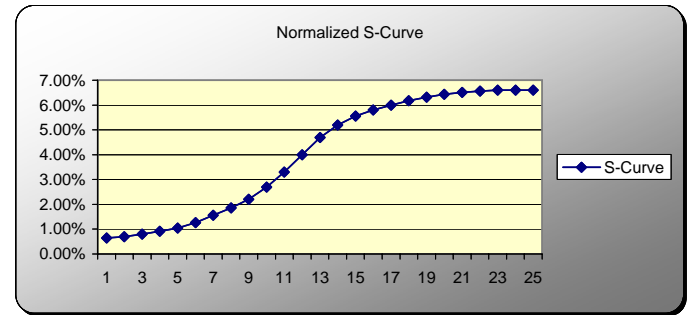
Cumulative Constr. Loan Interest is 21,161.10

The first part of this worksheet uses the assumptions above as well as S-Curve assumptions to develop a construction schedule. You can directly input your own S-Curve, or click the option above to select 1 of 5 pre-defined ones.

Page two helps rough in the component costs of construction. Using these two parts together is a quick and dirty way to develop a projects initial cost structure for feasibility analysis.

S-Curve Point #	S-Curve Value	Normalized S-Curve	Cumulative S-Curve
Point # 1	3.2	0.64%	0.6%
Point # 2	3.5	0.70%	1.3%
Point # 3	4.0	0.80%	2.1%
Point # 4	4.6	0.92%	3.1%
Point # 5	5.2	1.04%	4.1%
Point # 6	6.3	1.26%	5.4%
Point # 7	7.8	1.56%	6.9%
Point # 8	9.3	1.86%	8.8%
Point # 9	11.0	2.20%	11.0%
Point # 10	13.5	2.70%	13.7%
Point # 11	16.5	3.30%	17.0%
Point # 12	20.0	4.00%	21.0%
Point # 13	23.5	4.70%	25.7%
Point # 14	26.0	5.20%	30.9%
Point # 15	27.8	5.56%	36.4%
Point # 16	29.0	5.80%	42.2%
Point # 17	30.0	6.00%	48.2%
Point # 18	30.9	6.18%	54.4%
Point # 19	31.6	6.32%	60.7%
Point # 20	32.2	6.44%	67.1%
Point # 21	32.6	6.52%	73.7%
Point # 22	32.8	6.56%	80.2%
Point # 23	33.0	6.60%	86.8%
Point # 24	33.0	6.60%	93.4%
Point # 25	33.0	6.60%	100.0%

500.3



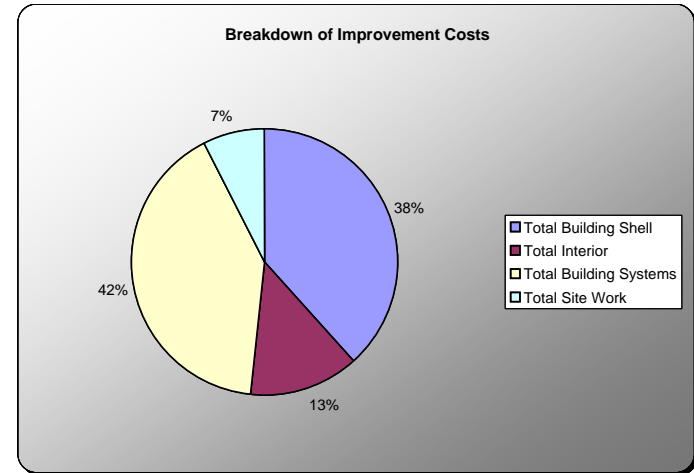
### Construction Schedule and Related Interest Charges Spread according to the above construction and S-CURVE assumptions

Actual MONTH	Actual Mo.	Construction Dispersement Rate		CONSTANT \$ BASIS		ACTUAL \$ BASIS		Dispersement Required	Retainage	Payment to Contractor	Loan Outstanding	INTEREST CHARGES	
		PERCENT BASIS Monthly	Cumulative	Monthly	Cumulative	Monthly	Cumulative					Monthly	Cumulative
1	1	1.47%	1.47%	14,724	14,724	14,773	14,773	11,080	1,108	9,972	9,972	66.48	66.48
2	2	1.91%	3.38%	19,079	33,803	19,207	33,980	14,405	1,440	12,964	22,936	152.91	219.39
3	3	2.65%	6.03%	26,545	60,348	26,811	60,791	20,109	2,011	18,098	41,034	273.56	492.95
4	4	3.88%	9.91%	38,781	99,129	39,300	100,091	29,475	2,948	26,528	67,562	450.41	943.36
5	5	5.65%	15.56%	56,512	155,641	57,460	157,551	43,095	4,309	38,785	106,347	708.98	1,652.34
6	6	8.30%	23.86%	82,953	238,594	84,626	242,178	63,470	6,347	57,123	163,470	1,089.80	2,742.14
7	7	10.71%	34.57%	107,113	345,707	109,638	351,815	82,228	8,223	74,005	237,475	1,583.17	4,325.31
8	8	12.01%	46.58%	120,075	465,782	123,314	475,129	92,486	9,249	83,237	320,712	2,138.08	6,463.39
9	9	12.80%	59.37%	127,955	593,737	131,845	606,975	98,884	9,888	88,996	409,708	2,731.39	9,194.78
10	10	13.33%	72.71%	133,347	727,084	137,859	744,834	103,395	10,339	93,055	502,763	3,351.75	12,546.53
11	11	13.60%	86.31%	136,043	863,127	141,115	885,950	105,837	10,584	95,253	598,016	3,986.77	16,533.31
12	12	13.69%	100.00%	136,873	1,000,000	142,449	1,028,399	106,837	10,684	96,153	694,169	4,627.79	21,161.10

**TOTAL PROJECT CAPITAL BUDGET**

**BUILDING COMPONENT CONSTRUCTION COST ESTIMATE  
(Calculated by Comparative Units Method)**

IMPROVEMENT COSTS	Calculated Component Cost	% of Total Constr. Cost	Approximate Cost/Sq. Ft. of Gross Building Area	Override With Direct Dollar Input
<b>Building Shell</b>				
Caulking	3,000	0.30%	0.30	0
Concrete Work	195,000	19.50%	19.50	0
Elevators	100,000	10.00%	10.00	0
Façade	39,000	3.90%	3.90	0
Glazing and Frames	36,000	3.60%	3.60	0
Insulation	5,000	0.50%	0.50	0
Roofing	6,000	0.60%	0.60	0
Other Building Shell Costs	0	0.00%	0.00	0
<b>Total Building Shell</b>	<b>384,000</b>	<b>38.40%</b>	<b>38.40</b>	<b>0</b>
<b>Interior</b>				
Acoustical	8,000	0.80%	0.80	0
Flooring	28,000	2.80%	2.80	0
Hardware	6,000	0.60%	0.60	0
Millwork, Doors & Frames	14,000	1.40%	1.40	0
Painting	28,000	2.80%	2.80	0
Plaster and Drywall	40,000	4.00%	4.00	0
Toilet Finishes	8,000	0.80%	0.80	0
Other Interior Costs	0	0.00%	0.00	0
<b>Total Interior</b>	<b>132,000</b>	<b>13.20%</b>	<b>13.20</b>	<b>0</b>
<b>Building Systems</b>				
Electrical	109,000	10.90%	10.90	0
Heating, Ventilation & A.C.	189,000	18.90%	18.90	0
Plumbing	84,000	8.40%	8.40	0
Sprinklers	28,000	2.80%	2.80	0
Other Building Systems Costs	0	0.00%	0.00	0
<b>Total Building Systems</b>	<b>410,000</b>	<b>41.00%</b>	<b>41.00</b>	<b>0</b>
<b>Site Work</b>				
Site Cleaning	0	0.00%	0.00	0
Excavation	12,000	1.20%	1.20	0
Parking & Drives	41,000	4.10%	4.10	0
Landscaping & Exterior Lighting	21,000	2.10%	2.10	0
Other Site Work Costs	0	0.00%	0.00	0
<b>Total Site Work</b>	<b>74,000</b>	<b>7.40%</b>	<b>7.40</b>	<b>0</b>
<b>TOTAL IMPROVEMENT COSTS</b>	<b>1,000,000</b>	<b>100.00%</b>	<b>100.00</b>	<b>0</b>
<b>TI Improvement Cost per Sq. Ft.</b>	<b>100.00</b>			



**OTHER CONSTRUCTION RELATED COSTS**

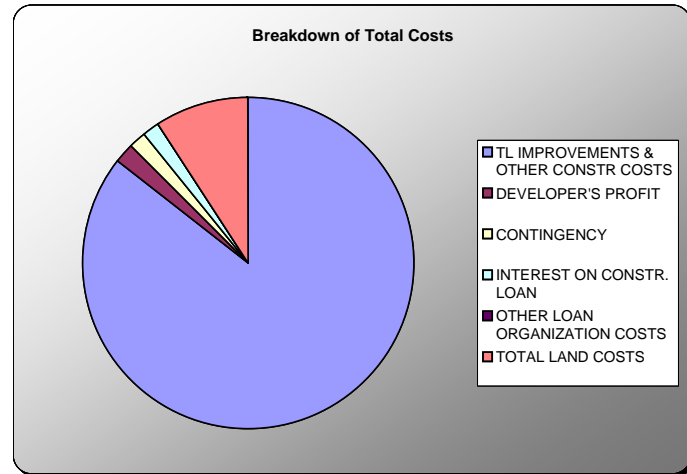
**Administrative & Design**

			Percent of TI Impr. Cost	Override With Direct Dollar Input
Architectural	10,000	19.80%	1.00%	0
Engineering	10,000	19.80%	1.00%	0
Loan Organization Fees	0	0.00%	0.00%	0
Taxes and Insurance	10,000	19.80%	1.00%	0
Other Admin. & Design	500	0.99%	0.05%	0
<b>Total Admin. &amp; Design</b>	<b>30,500</b>	<b>60.40%</b>	<b>3.05%</b>	<b>0</b>

**Fees and Permits**

Connection Fees	5,000	9.90%	0.50%	0
Inspection Fees	5,000	9.90%	0.50%	0
Application Fees	5,000	9.90%	0.50%	0
Legal Fees	5,000	9.90%	0.50%	0
Other Professional Fees	0	0.00%	0.00%	0
<b>Total Fees and Permits</b>	<b>20,000</b>	<b>39.60%</b>	<b>2.00%</b>	<b>0</b>

**TOTAL OTHER CONSTR. COSTS 50,500 100.00% 0.05 0**



**TL IMPROVEMENTS & OTHER CONSTR COSTS 1,050,500**

DEVELOPER'S PROFIT	21,010
CONTINGENCY	21,010
INTEREST ON CONSTR. LOAN	21,161
OTHER LOAN ORGANIZATION COSTS	0

	Percent of Total Improvements & Other Constr Costs	Override With Direct Dollar Input
DEVELOPER'S PROFIT	2.00%	0
CONTINGENCY	2.00%	0
INTEREST ON CONSTR. LOAN		0
OTHER LOAN ORGANIZATION COSTS		0
<b>Total</b>		<b>0</b>

**TL PROJECT CONSTRUCTION COSTS 1,113,681**

**LAND COSTS**

		Override With Direct Dollar Input
Land	100,000	100,000
Removal Costs	0	0
Accrued Property Tax on Land	5,000	5,000
Other Land Costs	0	0
Finance Charges on Land Loan	7,500	0
Other Loan Organization Costs	0	0
<b>Total</b>	<b>105,000</b>	<b>105,000</b>

**TOTAL LAND COSTS 112,500**

**Land Loan Assumptions**

Land Loan Debt Ratio:	75.00%
Land Loan Interest Rate:	8.00%
Total Number of Months Land Held:	15
Finance Charges on Land Loan	7,500

**TL LAND & CONSTRUCTION COST 1,226,181**



The "optimistic" estimate estimates the time in which the activity can be completed if everything goes exceptionally well.

The "pessimistic" estimate is an estimate of the longest time the activity would require under the most adverse conditions, barring acts of God.

The units can be anything you like. The example uses days. If you use these estimates to see the impact on financing using the S-Curve above, you need to convert to months.

**NOTE:**

Be aware that the quality of the output statistics are highly dependent upon the quality of the original estimates (most likely, optimistic and pessimistic).

Also, while the estimates of completion times are considered independent variables for statistical purposes, any good project manager knows that he/she should not just watch events unfold as if in a vacuum but control to the plan.

For managing and scheduling Tasks in general (not CRITICAL PATHS) see the adjacent worksheet **Task MGR**.