

# Single Family Detached Residential Development

Case Study and Class Exercise

# West Tyvola Village

SALES PRICE

\$15,000.00

NUMBER OF LOTS

39

## LAND COST

1000	LAND COST	15%	\$77,000.00
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## SOFT COST

1200	REAL ESTATE TAXES	1%	\$6,604.65
1300	LEGAL COST	3%	\$15,908.00
1400	DEVELOPMENT FEES	4%	\$19,500.00
1500	REAL ESTATE COMMISSION	0%	\$0.00
1600	INTEREST	6%	\$30,000.00
1700	INSURANCE	0%	\$2,000.00
1800	ACCOUNTING	1%	\$5,000.00
1900	UTILITY BILLS	0%	\$560.00
2000	PRE-CONSTRUCTION	1%	\$2,600.00
2100	ENGINEERING FEE	3%	\$15,600.00
2200	SURVEY FEE	3%	\$15,600.00
2300	PERMITS & FEES	4%	\$21,450.00
2400	BONDS	0%	\$500.00
2500	ADVERTISING	1%	\$4,000.00
	SOFT COST TOTAL	27%	\$139,322.65

## HARD COST

3000	MOBILIZATION	0%	\$2,000.00
3200	EROSION CONTROL	2%	\$11,900.00
3300	GROUND WORK	15%	\$77,290.00
3400	STORM WATER	12%	\$62,069.00
3500	SANITARY SEWER	7%	\$37,250.00
3600	CURB	3%	\$17,150.00
3700	WATER SYSTEM	8%	\$39,304.00
3800	PAVING	5%	\$26,875.00
3900	ROAD MISCELLANEOUS	0%	\$300.00
4000	SEWERS	2%	\$8,500.00
4100	LANDSCAPING	1%	\$4,500.00
4200	MAINTENANCE	0%	\$1,625.00
4300	MISCELLANEOUS	0%	\$0.00
	HARD COST TOTAL	56%	\$288,663.00

64,000

## TOTAL

8000	TOTAL	98%	\$504,985.65
9000	% CONTINGENCY	2%	\$10,099.71
10000	GRAND TOTAL	100%	\$515,085.36

## PER LOT COST

	LAND COST AVG. PER LOT	15%	\$1,974.36
	SOFT COST AVG. PER LOT	27%	\$3,572.38
	HARD COST AVG. PER LOT	56%	\$7,401.62
	CONTINGENCY AVG. LOT	2%	\$258.97
	TOTAL AVG. COST PER LOT	100%	\$13,207.32

## PROFIT/LOSS & MARGIN

	MARGIN ON LOT OF SUGGESTED RETAIL	12%	\$15,000.00
	PER LOT PROFIT/LOSS		\$1,792.68
	RETAIL GROSS & MARGIN	12%	\$383,000.00
	NET PROFIT/LOSS		\$69,914.64
	TOTAL CASH NEEDS		\$443,072.71

1000	LAND COST	UNIT	PRICE	QTY	TOTAL	SUBTOTAL
	LAND	AC.	\$77,000.00		\$77,000.00	\$77,000.00
1200	REAL ESTATE TAXES					
	REAL ESTATE TAXES CITY	EA.	\$71.85	39	\$2,802.15	
	REAL ESTATE TAXES COUNTY	EA.	\$97.50	39	\$3,802.50	\$6,604.65
1300	LEGAL FEES					
	CLOSING COST PER LOT	EA.	\$400.00	39	\$15,600.00	
	DEED STAMPS PER \$1,000	EA.	\$2.00	77	\$154.00	
	TITLE INSURANCE PER \$1,000	EA.	\$2.00	77	\$154.00	\$15,908.00
1400	DEVELOPMENT FEES					
	MANAGEMENT FEE	LS.	\$500.00	39	\$19,500.00	\$19,500.00
1500	REAL ESTATE COMMISSION					
	REAL ESTATE COMMISSION 6%	EA.	\$900.00	0	\$0.00	\$0.00
1600	INTEREST					
	INTEREST ON CONSTRUCTION LOANS	LS.	\$30,000.00	1	\$30,000.00	\$30,000.00
1700	INSURANCE					
	GENERAL LIABILITY	LS.	\$2,000.00	1	\$2,000.00	\$2,000.00
1800	ACCOUNTING					
	OVERHEAD ACCOUNTING	LS.	\$5,000.00	1	\$5,000.00	\$5,000.00
1900	UTILITY BILLS					
	ELECT. & STREETLIGHTS	EA.	\$112.00	5	\$560.00	\$560.00
2000	PRE-CONSTRUCTION					
	ENVIRONMENTAL REPORT	LS.	\$2,600.00	1	\$2,600.00	\$2,600.00
2100	ENGINEERING					
	ENGINEERING FEE PER LOT	LS.	\$400.00	39	\$15,600.00	\$15,600.00
2200	SURVEY					
	SUBDIVISION PER LOT	EA.	\$400.00	39	\$15,600.00	\$15,600.00
2300	PERMITS & FEES					
	GRADING PERMIT	LS.	\$1,500.00	1	\$1,500.00	
	SEWER CAPACITY FEE	EA.	\$460.00	39	\$17,940.00	
	SEWER CONTRACT PERMIT	LS.	\$200.00	1	\$200.00	
	STREET LIGHTING ACCEPTANCE	EA.	\$250.00	5	\$250.00	
	WATER SERVICE TAP FEE	EA.	\$40.00	39	\$1,560.00	\$21,450.00
2400	BONDS					
	ENGINEERING BOND	LS.	\$500.00	1	\$500.00	\$500.00
2500	ADVERTISING					
	DEVELOPERS SIGN AND INSTALLATION	LS.	\$1,500.00	1	\$1,500.00	
	SALES TRAILER SETUP	LS.	\$2,500.00	1	\$2,500.00	\$4,000.00
3000	MOBILIZATION					
	MOBILIZATION	LS.	\$2,000.00	1	\$2,000.00	\$2,000.00
3300	EROSION CONTROL					
	INLET PROTECTION	EA.	\$200.00	10	\$2,000.00	
	SILT FENCE	LF.	\$3.00	1,200	\$3,600.00	
	TEMPORARY DIVERSION DITCH	LF.	\$2.50	500	\$1,250.00	
	STONE CONSTRUCTION ENTRANCE	EA.	\$350.00	1	\$350.00	
	TEMPORARY SEDIMENT POND (INCLUDED STONE)	EA.	\$3,000.00	1	\$3,000.00	
	SEDIMENT POND REMOVAL	EA.	\$500.00	1	\$500.00	
	SEEDING BANK (TEMPORARY)	SY.	\$0.40	3,000	\$1,200.00	\$11,900.00
3400	GROUND WORK					
	CLEARING AND GRUBBING HEAVY	AC.	\$5,000.00	5.0	\$25,000.00	
	ASPHALT SAW CUTTING	LF.	\$1.50	700	\$1,050.00	
	DEMOLITION AND REMOVAL	LS.	\$3,000.00	1	\$3,000.00	
	TOPSOIL STRIPPED	CY.	\$1.50	2,400	\$3,600.00	
	TOPSOIL REPLACED	CY.	\$1.50	2,400	\$3,600.00	
	ROUGH GRADING CUT	CY.	\$1.50	9,680	\$14,520.00	

	ROUGH GRADING FILL	CY.	\$1.50	9,680	\$14,520.00	
	FINE GRADING (ROAD, CURB, SIDEWALK & YARD)	SY.	\$0.80	15,	\$12,000.00	\$77,290.00
3500	<b>STORMWATER SYSTEM</b>					
	15" RCP 0-6'	LF.	\$17.50	136	\$2,380.00	
	18" RCP 0-6'	LF.	\$20.50	840	\$17,220.00	
	36" RCP 0-6'	LF.	\$62.00	332	\$20,584.00	
	18" RCP FLARED END	EA.	\$390.00	2	\$780.00	
	36" RCP FLARED END	EA.	\$930.00	1	\$930.00	
	RIP RAP CLASS A APRON 1 CY=1.75 TONS	TON	\$30.00	30	\$900.00	
	36" HEADWALL	EA.	\$1,425.00	1	\$1,425.00	
	0-6' SINGLE CATCH BASIN/YARD INLET	EA.	\$1,600.00	10	\$16,000.00	
	0-6' STORM MANHOLE	EA.	\$1,600.00	1	\$1,600.00	
	UTILITY CROSSING	EA.	\$250.00	1	\$250.00	\$62,069.00
3500	<b>SANITARY SEWER SYSTEM</b>					
	8" PVC GRAVITY SEWER 0-6'	LF.	\$20.00	720	\$15,400.00	
	4" SANITARY MANHOLE 0-6'	EA.	\$1,500.00	2	\$3,000.00	
	4" DOGHOUSE MANHOLE 0-6'	EA.	\$2,000.00	1	\$2,000.00	
	SANITARY LATERALS 4" PVC	EA.	\$400.00	39	\$15,600.00	
	UTILITY CROSSING	EA.	\$250.00	1	\$250.00	
	TESTING	LS.	\$1,000.00	1	\$1,000.00	\$37,250.00
3600	<b>CURB</b>					
	2' CURB AND GUTTER	LF.	\$7.00	2,450	\$17,150.00	\$17,150.00
3700	<b>WATER SYSTEM</b>					
	2" PVC WATER MAIN	LF.	\$8.00	243	\$1,944.00	
	3" PVC WATER MAIN	LF.	\$8.50	975	\$8,287.50	
	6" PVC WATER MAIN	LF.	\$10.50	395	\$4,147.50	
	EXIST. WATER MAIN TIE-IN 6"x6" TAP VALVE	EA.	\$3,000.00	1	\$3,000.00	
	6" FIRE HYDRANT W/APPURTENANCE	EA.	\$2,000.00	1	\$2,000.00	
	2" GATE VALVE ASSEMBLIES	EA.	\$350.00	3	\$1,050.00	
	2" BLOW OFF VALVE	EA.	\$450.00	3	\$1,350.00	
	3/4" WATER METER LATERALS	EA.	\$400.00	39	\$15,600.00	
	3" x 3" x 3" TEE	EA.	\$175.00	1	\$175.00	
	6" x 3" x 2" TEE	EA.	\$250.00	1	\$250.00	
	BLOCKING	EA.	\$200.00	2	\$400.00	
	TESTING	LS.	\$1,000.00	1	\$1,000.00	\$39,284.00
3800	<b>PAVING</b>					
	1 1/2" BITUMINOUS SURFACE COURSE	SY.	\$5.25	2,500	\$13,125.00	
	6" COMPACTED ABC	SY.	\$5.50	2,500	\$13,750.00	\$26,875.00
3900	<b>ROAD MISCELLANEOUS</b>					
	STREET SIGNS	EA.	\$150.00	2	\$300.00	\$300.00
4000	<b>SIDEWALK</b>					
	4" CONCRETE SIDEWALK	LF.	\$8.50	1,000	\$8,500.00	\$8,500.00
4100	<b>LANDSCAPING</b>					
	ENTRY SIGN AND LANDSCAPING	LS.	\$4,500.00	1	\$4,500.00	\$4,500.00
4200	<b>MAINTENANCE</b>					
	PAVEMENT CLEANING	TRIP	\$125.00	5	\$625.00	
	PROJECT CLEAN-UP	LS.	\$1,000.00	1	\$1,000.00	\$1,625.00
4300	<b>MISCELLANEOUS</b>					
		LS.			\$0.00	\$0.00
8000	<b>TOTAL FOR ALL CATEGORIES</b>					\$504,985.65
9000	<b>CONTINGENCY % OF SUBTOTAL</b>				2%	\$10,099.71
10000	<b>GRAND TOTAL</b>					\$515,085.36



*Illustrative Master Plan*  
FEBRUARY 2000

## REID PARK TRACT

Prepared for: REID PARK COMMUNITY  
DEVELOPMENT CORPORATION  
1400 1st St.  
Brentwood, TN 37027

Prepared by:  Wilder Associates



<u>New Amay James Subdivision</u>					
acres		15.62			
proportion devoted to subdivision		50%			
acres in subdivision		7.81			
cost/acre bid to develop 37 lot W. Tyvola property		\$107,246.77			
cost to develop 46 lot P/R subdivision		\$837,597.27			
cost per lot		\$ 18,208.64			
CDI modular house cost (average)		\$ 45,000.00			
CDI finish package (average)		<u>\$ 25,000.00</u>			
total house costs		\$ 88,208.64			
		@ 5% profit	@ 10% profit		
Sale price		\$ 92,619.07	\$ 97,029.50		
House Charlotte		\$ (7,500.00)	\$ (7,500.00)		
Downpayment (3%)		<u>\$ (2,778.57)</u>	<u>\$ (2,910.89)</u>		
Amount to be financed		\$ 82,340.50	\$ 86,618.62		
P + I @ 7.5% for 30 yrs.		\$6,971.87	\$7,334.11		
Taxes @ \$1.40/\$100 TV		\$ 1,296.67	\$ 1,358.41		
Insurance @ 1% TV		<u>\$ 926.19</u>	<u>\$ 970.30</u>		
Annual Housing Expense		\$9,194.73	\$9,662.81		
Min. qualifying income		\$32,838.32	\$34,510.05	28%	front end ratio
% of AMI		54.4%	57.1%	\$ 60,400	= AMI
Profit to CDC		\$ 202,880	\$ 405,760	46	= # of du's

# Financial Analysis for a Subdivision

## Profit and Loss Projections for Subdivision and Housing Development

<u>Cumm. Costs</u>		<u>Profit</u>	
	Gross Volume	39 X \$125,000	\$ 4,875,000.00
	Direct Cost	\$ 91,700.00	
	Indirect (7.5% of Direct)	\$ 6,877.50	
	Land + Development	<u>\$ 13,208.00</u>	
\$ 4,359,634.50		\$ 111,785.50	\$ 515,365.50
\$ 4,395,397.50	Warranty (1% of Direct)	\$ 917.00	\$ 479,602.50
	Gross Margin	9.84%	
	Variable Sales Expense (5.0%)		\$ 235,852.50
\$ 4,639,147.50	R/E Commissions	\$ 3,750.00	3.0%
	Origination Fees	\$ 1,250.00	1.0%
	Other	<u>\$ 1,250.00</u>	1.0%
		\$ 6,250.00	
\$ 4,785,397.50	Sales and Marketing (3.0%)	\$ 3,750.00	\$ 89,602.50
\$ 4,834,147.50	Administrative Expense (1%)	\$ 1,250.00	\$ 40,852.50
	Net Profit	0.84%	
	Sales Price =	\$ 125,000.00	

# Class Exercise

- Using the example just explained, recalculate the cumulative and individual costs and profits associated with a subdivision with the following factors
  - 50 houses
  - \$75,000 direct costs/house
  - \$10,000 lot cost/house
- At what sales price per unit does the CDC break even?