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Planning a Housing Development

Profit Calculations

Team Members: .& \_ Name of Development:---------------------------­

Main Selling Point:------ ----------------------

Period:

Date: \_

Gross Profits: ------------ Net Profits: --------------

Calculate:

1. the gross value of your profit from the sale of your "living units" (1) \_

Total Number of “living units" times $50,000

2. % of your land covered by houses (2) \_ Number of “living Units" divided by Total# boxes

3. % of land area covered by roads (3) \_

Number of boxes covered by roads divides by total# boxes

4. %of open-space

i Number of boxes of open-space divided by total# boxes

5. A factor that will be used to determine your final profit (FPF)

(4) \_

(5) \_

Divide % open space by the sum of the % of "living units" + % roads

6. The total number of feet for each utility (including roads) and convert that sum into dollars by multiplying by 200. (ie, 400ft of roads for each utility, {electric, water, etc}

Total Utilities including roads= 7

7 times 400 = 2,800 ft

2,800 times 200 = $560,000 =total cost of utilities

(6) \_

7. Subtract the amount from #6 (total cost of utilities) from the total from **#1** (gross profit)

(7) \_

8. Multiply the amount from #7 by the FPF to get your net profit.

(8) \_

**The Team with the highest net profit wins**

Planning a housing development

Purpose: To plan your community so that

a. you have a minimum of 60% open space

b. use the least amount of resources to supply your homes with necessary services and to maintain them c. you have 70 "living units"

Pertinent Information:

a. Four blocks on the grid= ';4 acre (10,890 sqft)

b. One block= the footprint of a "living unit" (2700 sqft)

c. length of one side of a block= 52 ft

d. road access and utilities will come in from the line of "half boxes"

Color Key:

a. houses -purple

b. open space - green

c. roads - pink diagonal lines d. sewer lines -black

e. water lines -blue f. electric lines -red g. gas lines - yellow

h. phones lines -orange

1. cable lines-brown

J. sidewalks - teal diagonal lines

Methods: Using the grid provided by your teacher and the information provided above create your community so that you will make the greatest profit ($50,000 per dwelling) but also provide the most open space.

Once your community is planned, calculate the total acreage

a. devoted to open space b. covered by dwellings c. devoted to roads

AND

THEN

d. total length of all roads

e. total length of all utilities, i.e. pipes & wires

Write a short explanation of the rationale behind your plan. Remember to include in your

thought process the idea of a sustainable community and how to best minimize its ecological footprint.

Housing Development Rubric

Names & --------------------

Period: \_

Diagram

Living Units (4 squares) Road to each Living Unit Sidewalk to each Living Unit Utilities to each Living Unit Followed all directions Turned in on time

good ok

2 1

2 1

2 1

2 1

2 1

2 1

not correct

0

0

0

0

0

0

Calculations on target

Gross Profit #living units x $50,000

5

close

2

wrong

0

% acres covered by Living Units

5

#Living Units/16 /total acres (20)

2 0

% acres covered by roads # boxes of roads/64/total acres (20)

5 2 0

%Open Space

Cost of utilities

FPF

#boxes open space/64 (acres)/ total acres (20)

5 2 0

#boxes of roads x 26' x $200 x 7 utilities

5 2 0

% open space/ % living units + % roads

5 2 0

Net profit gross 'profit- cost of utilities x FPF= net profit

5 2 0

Summary detailed

5

Total points

brief

2

none

0

/52

