

# Virtual City Design Rubric

0	1	2	3
<b>No Points</b> Requirements missing	<b>Poor</b> Poor-Fair quality. Fulfills less than 50% of requirements.	<b>Good</b> Average-Above average quality. Fulfills at least 90% of requirements.	<b>Excellent</b> Excellent quality. Fulfills 100% of requirements. Additional distinctive features.

I. CITY MANAGEMENT CRITERIA (12 POINTS)	0	1	2	3
<b>1. City age</b> • At least 150 years	Age ≤ 10 years.	Age ≤ 100 years.	Age ≤ 150 years.	Age > 150 years
<b>2. City population</b> • At least 50,000	Population ≤ 5,000.	Population ≤ 25,000.	Population ≤ 50,000.	Population > 50,000.
<b>3. Budget management</b> • Income > expenses • Well-managed budget • Performance over time	Unbalanced budget.	Balanced < 25% of time.	Balanced < 75% of time.	Balanced > 75% of time.
<b>4. Mayor performance</b> • Opinion polls • Mayor rating	Impeach! < 3 polls green. Mayor rating < 20 (avg for 10 yrs). Data view red to dark green.	> 3 polls green. Avg mayor rating > 20. Data view dark green to green.	> 4 polls green. Avg. mayor rating > 50. Data view green.	All polls green. Avg. mayor rating > 60. Data view green.
II. CITY LAYOUT CRITERIA (21 POINTS)	0	1	2	3
<b>5. Residential development</b> • R § (low wealth) • R §§ (medium wealth) • R §§§ (high wealth)	No development.	One level of residential development.	Two levels of residential development.	All three levels of residential development.
<b>6. Industrial development</b> • I-Ag (agriculture) • I-D (dirty industry) • I-M (manufacturing) • I-HT (high-tech)	No industrial jobs.	Jobs in 1-2 industry segments.	Jobs in 3 industry segments.	Jobs in all 4 industry segments.
<b>7. Greener, cleaner industry</b> • Employment shifting from I-D (dirty) to I-M and I-HT	Few manufacturing or high-tech jobs (less than 25%).	25-50% of industrial jobs are in manufacturing or high-tech.	50-75% of industrial jobs are in manufacturing or high-tech.	More than 75% of industrial jobs are in manufacturing or high-tech.
<b>8. Commercial development</b> • Commercial Service • Cs § (low wealth) • Cs §§ (medium wealth) • Cs §§§ (high wealth) • Commercial Office • Co §§ (medium wealth) • Co §§§ (high wealth)	No commercial jobs.	Jobs in commercial service segments only.	Jobs in commercial service and office segments.	Jobs in all 5 commercial segments.

CONTINUED ON NEXT PAGE

# Virtual City Design Rubric

**0**  
**No Points**  
Requirements missing

**1**  
**Poor**  
Poor-Fair quality. Fulfills less than 50% of requirements.

**2**  
**Good**  
Average-Above average quality. Fulfills at least 90% of requirements.

**3**  
**Excellent**  
Excellent quality. Fulfills 100% of requirements. Additional distinctive features.

II. CITY LAYOUT CRITERIA (continued)	0	1	2	3
<b>9. Is development thriving?</b> <ul style="list-style-type: none"> <li>Degraded (gray) or abandoned (black) buildings in the residential, industrial or commercial zones</li> </ul>	Over 50% of development degrading or abandoned.	Some (20-50%) of development degrading or abandoned.	Small amount (5-20%) of the development degrading or abandoned.	Vibrant city with little (<5%) of development degrading or abandoned.
<b>10. Recreation facilities</b> <ul style="list-style-type: none"> <li>Ratio of parks &amp; recreation facilities to population (50:100K)</li> <li>Well-funded facilities</li> </ul>	Less than 15 areas per 100,000 residents. (Ratio < 0.00015)	At least 15 areas per 100,000 residents. (Ratio ≥ 0.00015)	At least 30 areas per 100,000 residents. (Ratio ≥ 0.0003)	At least 50 areas per 100,000 residents. (Ratio ≥ 0.0005)
<b>11. City Planning</b> <ul style="list-style-type: none"> <li>City design is well-thought out, cohesive and structured               <ul style="list-style-type: none"> <li>Zoning, neighborhoods</li> <li>Traffic and transportation routes</li> <li>Functionality and mixed-use areas</li> <li>Downtown, amenities</li> <li>Eco-management, sustainability, landscape management</li> </ul> </li> </ul>	No apparent plan.	Some evidence of planning, but mostly evolutionary development.	Evidence of a plan, but execution could be better.	Well-thought out plan is evident.
III. CITY SERVICES (18 POINTS)	0	1	2	3
<b>12. Police coverage</b> <ul style="list-style-type: none"> <li>Adequate police coverage of populated areas</li> <li>No serious crimes</li> </ul>	Little (<50%) police coverage.	Some (approx. 50% to 90%) police coverage. Incidence of serious (red) crimes.	Adequate (>90% to 95%) police coverage - not all populated areas covered. Few serious (red) crimes.	Complete (>95%) police coverage. No serious (red) crimes.
<b>13. Police effectiveness</b> <ul style="list-style-type: none"> <li>Number of arrests tracks the number of crimes</li> <li>Performance over time</li> </ul>	Crimes far out number arrests.	20% or more variance in crimes over arrests.	Less than 20% variance in crimes over arrests. Trend improving through time.	Arrests closely track crimes over life of city.
<b>14. Fire coverage</b> <ul style="list-style-type: none"> <li>Adequate fire coverage of populated areas</li> <li>Effective control of fire hazards</li> </ul>	Little (<50%) fire coverage. Majority of city is dark orange to red.	Some (approx. 50% to 90%) fire coverage. Orange to red.	Adequate (>90% to 95%) fire coverage - not all populated areas covered. Orange.	Complete (>95%) fire coverage. Yellow to light orange.
<b>15. Medical coverage</b> <ul style="list-style-type: none"> <li>Adequate coverage of residential areas</li> <li>Healthy population</li> </ul>	No medical facilities present.	Some (approx. 50% to 90%) coverage in residential areas. Red to dark green.	Adequate (>90% to 95%) coverage in residential areas. Dark green to green.	Complete (>95%) coverage in residential areas. Green to light green.

# Virtual City Design Rubric

**0**  
**No Points**  
Requirements missing

**1**  
**Poor**  
Poor-Fair quality. Fulfills less than 50% of requirements.

**2**  
**Good**  
Average-Above average quality. Fulfills at least 90% of requirements.

**3**  
**Excellent**  
Excellent quality. Fulfills 100% of requirements. Additional distinctive features.

III. CITY SERVICES (continued)	0	1	2	3
<b>16. Education</b> <ul style="list-style-type: none"> <li>Adequate coverage of residential areas</li> <li>Educated population</li> </ul>	No educational institutions.	Some (approx. 50% to 90%) coverage in residential areas. Red to dark green.	Adequate (>90% to 95%) coverage in residential areas. Dark green to green.	Complete (>95%) coverage in residential areas. Green to light green.
<b>17. Life-long learning</b> <ul style="list-style-type: none"> <li>Variety of education facilities</li> <li>Education quotient high across all age groups</li> </ul>	EQ is less than 120 for majority of the population.	EQ is 120 or higher in 3 or more age groups.	EQ is 120 or higher in 6 or more age groups.	EQ is 120 or higher in all age groups.
IV. ENERGY AND POLLUTION (18 POINTS)	0	1	2	3
<b>18. Power coverage</b> <ul style="list-style-type: none"> <li>Power to all areas of the city</li> <li>Generation capacity sufficient to satisfy needs</li> <li>Performance over time</li> </ul>	Few areas (< 50%) have power. Demand exceeds capacity.	Some of city (>50%) has power. Some periods of inadequate capacity.	Most of city (> 90%) has power. Sufficient generation capacity majority of time.	All (100%) areas have power. Sufficient generation capacity over life of city.
<b>19. Renewable energy sources</b> <ul style="list-style-type: none"> <li>Renewable sources: wind, solar, hydrogen</li> <li>Portion of total capacity</li> </ul>	No renewable fuel sources.	1 form of renewable power.	Two or more forms of renewable power provide a portion of the capacity.	Two or more forms of renewable power provide 100% of capacity.
<b>20. Water coverage</b> <ul style="list-style-type: none"> <li>Water to all areas of the city</li> <li>Supply capacity sufficient to satisfy needs</li> <li>Performance over time</li> </ul>	Few areas (<50%) have water. Demand exceeds capacity.	Some of city (>50%) has water. Some periods of inadequate capacity.	Most of city (>90%) have water. Sufficient capacity majority of the time.	All (100%) areas have water. Sufficient capacity over life of city.
<b>21. Garbage disposal</b> <ul style="list-style-type: none"> <li>Forms of garbage disposal: landfills, recycling, waste-to-energy plants</li> <li>Disposal capacity adequate to satisfy needs</li> <li>Garbage pollution under control</li> </ul>	No forms of garbage disposal. Pollution high.	At least 1 form of garbage disposal. Demand exceeds capacity. Pollution high.	One or more forms of garbage disposal. Adequate capacity. Little or no garbage pollution.	Two or more forms of garbage disposal. Adequate capacity. No indication of garbage pollution.
<b>22. Recycling facilities</b> <ul style="list-style-type: none"> <li>Sufficient capacity</li> <li>Ratio of facilities to residents (1:25K)</li> </ul>	No recycling centers.	Less than 1 recycling center per 50,000 residents.	Less than 1 recycling center per 25,000 residents.	At least 1 recycling center per 25,000 residents.
<b>23. Air and water pollution</b> <ul style="list-style-type: none"> <li>Air pollution under control</li> <li>Water pollution under control</li> </ul>	Pollution (air OR water) covers more than 75% of city. Yellow to red.	Pollution (air OR water) covers 50-75% of city. Yellow to red.	Pollution (air AND water) covers less than 50% of city. Yellow to orange.	Pollution (air AND water) covers less than 25% of city. Predominately yellow.

CONTINUED ON NEXT PAGE

# Virtual City Design Rubric

**0**  
**No Points**  
Requirements missing

**1**  
**Poor**  
Poor-Fair quality. Fulfills less than 50% of requirements.

**2**  
**Good**  
Average-Above average quality. Fulfills at least 90% of requirements.

**3**  
**Excellent**  
Excellent quality. Fulfills 100% of requirements. Additional distinctive features.

V. TRANSPORTATION (21 POINTS)	0	1	2	3
<b>24. Road congestion</b> <ul style="list-style-type: none"> <li>Traffic flow, congestion</li> <li>Road repair, potholes (inadequate funding)</li> </ul>	Traffic jam! Most of roads (>75%) are congested (orange to red) or roads impassable (potholes).	Many roads (30-75%) are congested (orange to red). Some need repair.	Some roads (10-30%) are congested (orange to red). No potholes.	Traffic flows freely. Less than 10% congestion (orange to red). No potholes.
<b>25. Public Transportation</b> <ul style="list-style-type: none"> <li>Sims using the Public Transportation Systems</li> <li>Number of systems:               <ul style="list-style-type: none"> <li>Bus</li> <li>Subway</li> <li>Monorail</li> <li>Passenger train</li> <li>Ferry</li> </ul> </li> </ul>	No public transportation systems.	1 or more systems built. Sims not using them.	Sims using at least 1 public transportation system.	Sims using 2 or more public transportation systems.
<b>26. Public Transportation–integrated systems</b> <ul style="list-style-type: none"> <li>Integrated systems</li> <li>Adequate coverage throughout the city</li> </ul>	No public transportation systems.	Public transportation covers only part (<50%) of the city. Systems lack integration.	Public transportation covers most (>50%) of the city. Could be better integrated.	Public transportation provides excellent coverage throughout (>90%) city. Well-integrated systems.
<b>27. Commute times</b> <ul style="list-style-type: none"> <li>Average commute time</li> <li>Performance over past 10 years</li> </ul>	Commute time of more than 100 minutes.	Commute time of 100 minutes or less.	Commute time of 75 minutes or less.	Commute time of 50 minutes or less.
<b>28. Freight transportation</b> <ul style="list-style-type: none"> <li>Sims using the freight transportation systems</li> <li>Number of systems               <ul style="list-style-type: none"> <li>Freight truck</li> <li>Freight train</li> <li>Seaport</li> </ul> </li> </ul>	No freight transportation systems used.	1 or more systems built. Sims (industry) not using them.	Industry using at least 1 freight transportation system.	Industry using 2 or more freight transportation systems.
<b>29. Efficient freight movement</b> <ul style="list-style-type: none"> <li>Integrated systems</li> <li>Short freight trips</li> </ul>	No freight transportation.	Few industrial facilities (< 50%) have short freight trips.	Most industrial facilities (> 50%) have short freight trips.	Freight moves efficiently throughout (> 90%) industrial area.
<b>30. Airport</b> <ul style="list-style-type: none"> <li>Airport built               <ul style="list-style-type: none"> <li>Landing strip (not fire department landing strip)</li> <li>Municipal airport</li> <li>International airport</li> </ul> </li> <li>Airport well-funded</li> <li>Supports Co (Commercial Office) development               <ul style="list-style-type: none"> <li>Road and public transportation connections</li> <li>Direct connection to Co zone(s)</li> </ul> </li> </ul>	No airport.	Airport is present. Partially funded. No traffic connection to Co.	Airport (any type) present. Well funded. Some connection to Co development, but could be better.	Municipal or International airport. Fully funded. Excellent traffic connections to city's major Co development areas.