

PART 2: DESIGNING & PLANNING

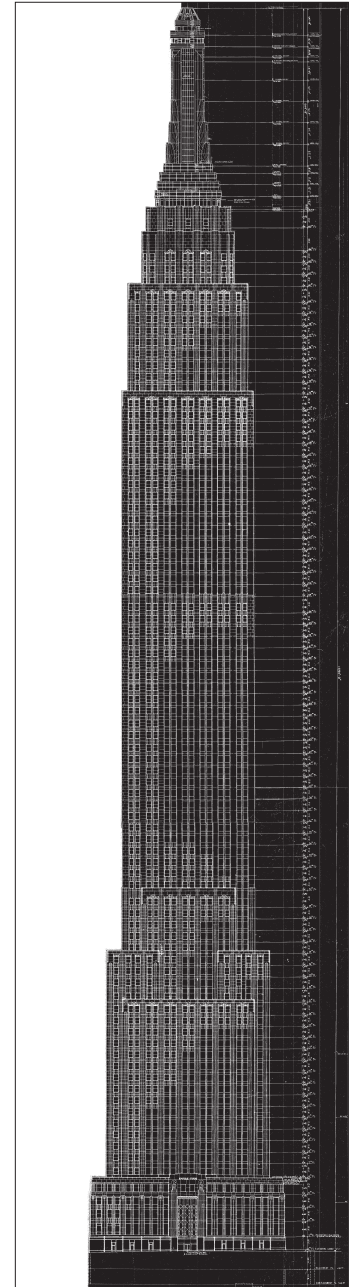
Vocabulary

Aesthetic	characterized by beauty or good taste
Developer	a person or company who specializes in achieving the potential of a piece of real estate, often by financing construction
Light Court	an exterior space, usually in the center of a building, that allows light and fresh air to reach inner spaces
Lot	the land on which a building is constructed
Section	a drawing of the inside of a building as if it were cut through vertically or horizontally
Setbacks	building design that gradually makes a building smaller at the top, like a wedding cake or steps on a pyramid
Speculation	taking on a risky business venture—such as buying stocks or constructing a building—with the hope of making a significant profit
Ventilation	the system for replacing stale air with fresh air

The most important factor in determining the size of a skyscraper is money. When a lot is purchased by a developer, a number of factors will be considered before architects are hired and building plans are made:

Location The proximity of the lot to certain amenities, such as public transportation, tourist attractions, or a business district, will determine potential use of a building, whether commercial or residential.

Land Value Purchasing land and constructing a building can be expensive. In order to pay for these costs, as well as the cost of operating and maintaining the building, the developer must build the right kind of structure. Skyscrapers are built to maximize the amount of profitable space by stacking many square feet onto a proportionally small space.



EMPIRE STATE BUILDING
Blueprint

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Zoning Laws Any building decision is governed by zoning laws. Zoning laws are created by city governments, and may affect factors such as height, number of windows, public or park space, and even how the building can be used. Many New York City skyscrapers, for example, were built in a setback style because they were required for buildings of a certain height according to zoning laws enacted in 1916.

Notoriety Once the location, land value, and zoning laws related to a given lot have been assessed, a developer may then also add an element of notoriety to the building to attract occupants. In some cases, such as the Empire State Building, the size of the building is important. In other situations, a famous architect is hired to design the building and attract publicity. However, notoriety is not always necessary to create a profitable building.

To Do: *In total, the Empire State Building has 2,158,000 square feet of commercial and office space. When real estate is in high demand, that space can be leased for as much as \$75.00 per square foot. However, when plenty of office space is available, the cost per square foot can drop to \$30.00 per square foot. What is the difference in total revenue for the Empire State Building when real estate is in high demand versus when there is low demand?*

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Document Analysis Activities

Document 4. Woolworth Building Historical Postcard. At 792-feet, the 55-story Woolworth Building was the tallest building in the world from 1913 to 1930. The broad base of the Woolworth Building sits close to the street on Broadway in lower Manhattan. The bottom 29 floors share an interior light court. The top 26 stories are narrower to make up the tower.

To Do: *Analyze the purpose of the interior light court, a common feature among buildings of this era. Why might building tenants want an interior light court? How might a light court bring in more revenue for the building owner? As a government official, why might you vote for a law requiring an interior light court for buildings of a certain size?*

Document 5. Woolworth Building Section Drawing. This type of drawing gives information about the interior structure and spaces of a building. You can see floor levels, windows and doors, the ground floor lobby—a large grand space—basement levels and foundations (in dotted lines). The exterior of the building shows windows and some decoration.

To Do: *Compare and contrast this drawing with the Empire State Building blueprint. What different information does this drawing provide? What might be the purpose of each document? Provide reasons for your answers.*

Document 6. Woolworth Building Floor Plan. The floor plan shows the location of offices, hallways, elevators, restrooms, closets, fire escapes, doorways, windows, and pipes on one floor of the Woolworth Building. Some of this space is profitable (such as offices), some is not profitable (such as elevators).

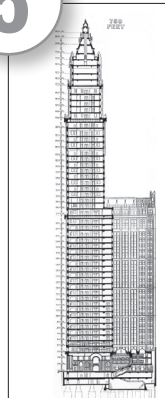
To Do: *What fraction of the total floor space in this drawing is able to be rented out? If technology could provide fluorescent lighting and air conditioning to these offices (such technology did not exist when the building was constructed), how might you change the floor plan to make it more profitable?*

Across the Documents: *Look for common characteristics among the buildings in the images. Look for traits that reflect the location of the buildings, the value of the land, zoning laws in effect when the building was constructed, and the notoriety of the structures.*

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