

MEGAPROJECTS

1.1 Billion-Dollar Projects

Projects with expenditures over \$1 billion are classified as megaprojects. A common definition of megaprojects is “projects with initiatives that are physical, very expensive, and public.” The scope of megaprojects typically necessitates complex risk management, cooperation amongst stakeholders, and environmental awareness.

Megaprojects can include airport terminals, bridges, environmental remediation projects, highways, hospital expansions, industrial facilities, manufacturing and semiconductor processing facilities, mixed-use developments, power generation plants, public buildings, rail transportation, shopping malls, skyscrapers, sports stadiums, tunnels, and more.

In November 2021, President Biden signed into law the 2021 Infrastructure Investment and Jobs Act. The act appropriated \$1.2 trillion for upgrading America’s roads, sewers, airports, bridges, and dams. Congress set aside \$66 billion to advance rail projects across the country.

1.2 Impact

The impact of megaprojects extends beyond the billions of dollars spent on planning, design, and construction.

Megaprojects spur economic development in local communities. Initial short-term spending by construction workers is generally followed by long-term spending by people that work at the project.

Megaprojects are often hubs for local economic development. Cities seek to locate megaprojects in areas that are slated for redevelopment. Adjacent to megaprojects property values typically increase, providing further economic impact.

Stakeholders seldom invest in any project where the benefits aren’t likely to exceed the investment.

1.3 Infrastructure Megaprojects

The deterioration of infrastructure across North America has gotten much attention in recent years. American infrastructure statistics indicated a funding gap of \$2.6 trillion in 2023. The U.S. is assessed at more than \$10 trillion to fund infrastructure upgrades by 2039.

According to the Center for Strategic and International Studies (www.csis.org), increasing public spending on infrastructure to levels similar to the mid-twentieth century would create more than 3 million jobs. The U.S. economy would grow by \$2.70 for every dollar spent.

ACTIVE AND PROPOSED MEGAPROJECTS

3.1 Overview

Research by Richard K. Miller & Associates (RKMA; www.rkma.com) has identified over 100 active and proposed megaprojects in the United States and Canada. This chapter profiles these megaprojects with projected spending for each.

Chapters 4 through 100 provide a description and assessment of each of these megaprojects.

3.2 List of Projects

- 175 Park Avenue (New York, NY) \$3.0 billion
- 2028 Summer Olympics (Los Angeles, CA) \$7.0 billion
- 350 Park Avenue (New York, NY) \$1.0 billion
- Affirmation Tower (New York, NY) \$3.5 billion
- Allegheny General Hospital Expansion (Pittsburgh, PA) \$1.0 billion
- Amazon Web Services (South Bend, IN) \$11.0 billion
- American Dream Miami (Dade County, FL) \$5.0 billion
- American Legion Bridge Replacement (Bethesda, MD) \$5.0 billion
- Bentley Residences (Sunny Isles Beach, FL) \$1.0 billion
- BlueOval Electric Vehicle & SK Battery Plants (Glendale, KY and Stanton, TN) \$11.4 billion
- Blue Line Extension (Minneapolis to Brooklyn Park, MN) \$1.5 billion
- Brent Spence Bridge Corridor (Cincinnati, OH and Covington, KY) \$3.4 billion
- Brightline West (Las Vegas, NV to Rancho Cucamonga, CA) \$12.0 billion
- California High-Speed Rail (San Diego to Sacramento, CA) \$113 billion
- California Tower (Sacramento, CA) \$3.7 billion
- Cape Cod Bridges Program (Buzzards Bay, MA) \$4.5 billion
- Chicago Region Environmental and Transportation Efficiency Program (Chicago, IL) \$4.6 billion
- Commonwealth LNG Liquefaction & Export Facility (Cameron, LA) \$4.0 billion
- Cornell Tech Campus (New York, NY) \$2.0 billion
- Crane Clean Energy Center (near Harrisburg, PA) \$1.6 billion
- Cross Harbor Freight Program (Brooklyn, NY) \$7.0 billion
- Crowchild Trail Upgrades (Calgary, AB, Canada) CAD \$2.6 billion
- Dallas Fort Worth International Airport Modernization (Arlington TX) \$4.8 billion

- DigIndy Tunnel System (Indianapolis, IN) \$2.0 billion
- Gateway Program, Northeast Corridor (New York City to New Jersey) . . \$16.1 billion
- Generation Park (Houston, TX) >\$10 billion
- Gordie Howe International Bridge (Detroit, MI and Windsor, ON) . . CAD \$6.4 billion
- Gowanus Canal Combined Sewer Overflow Infrastructure
(Brooklyn, NY) \$1.2 billion
- Hampton Roads Bridge-Tunnel Expansion (Norfolk to Hampton, VA) . . . \$3.9 billion
- Hanford Remediation (Richland, WA) \$41 billion to \$56 billion
- Highland Bridge Mixed-Use Development (Saint Paul, MN) >\$1 billion
- Highmark Stadium (Orchard Park, NY) \$1.7 billion
- Historic Gas Plant District & Tampa Bay Rays Ballpark
(St. Petersburg, FL) \$6.5 billion
- Hudson Yards (New York, NY) \$25 billion
- Hunters Point Naval Shipyard and Candlestick Park Redevelopment
(San Francisco, CA) \$8 billion
- Hydrogen Hubs (various locations) \$4.5 billion
- Hyundai EV Manufacturing Plant (Ellabell, GA) \$7.6 billion
- Intel Semiconductor Facilities (Chandler, AZ) \$20 billion
- Interborough Express (New York, NY) \$5.5 billion
- IU Health Expansion (Indianapolis, IN) \$4.3 billion
- Jansen Potash Project (Jansen, SK, Canada) CAD \$13.9 billion
- JFK International Airport Redevelopment (New York, NY) \$19 billion
- John Glenn Columbus Airport, New Terminal (Columbus, OH) \$2.0 billion
- King of Prussia Rail Line (Montgomery County, PA) \$3.0 billion
- Lincoln Yards (Chicago, IL) \$6 billion
- Line 5 Eglinton, Second Phase (Toronto, ON, Canada) CAD \$4.7 billion
- LinkUS (Columbus, OH) \$8.0 billion
- Long Bridge Project (Washington, DC to Arlington, VA) \$1.2 billion
- Los Angeles International Airport Capital Improvement
(Los Angeles, CA) \$30 billion
- Lyndon B. Johnson Hospital Expansion (Houston, TX) \$1.6 billion
- Markham Centre (Markham, ON, Canada) CAD \$4.0 billion
- Mayo Clinic Expansion (Rochester, MN) \$5 billion
- Meta Data Center (Mesa, AZ) \$1.0 billion
- Miami Worldcenter (Miami, FL) \$6.0 billion
- Miami-Dade Incinerator (Miami, FL) \$1.5 billion
- Nashville International Airport, BNA Vision (Nashville, TN) \$1.5 billion
- Newark Bay-Hudson County Extension (Newark, NJ) \$4.3 billion
- New Center Expansion (Detroit, MI) \$3.0 billion
- Nissan Stadium (Nashville, TN) \$2.1 billion
- Nucor Steel West Virginia (Point Pleasant, WV) \$3.1 billion
- O'Hare 21 (Chicago, IL) \$12.1 billion
- Oakbridge Park (Vancouver, BC, Canada) CAD \$6.5 billion
- Ovation Entertainment District (Kissimmee, FL) >\$1 billion

- Port Covington Redevelopment (Baltimore, MD) \$5.5 billion
- Port of Savannah, Hutchinson Terminal (Savannah, GA) \$2 billion
- Prince Albert Victoria Hospital (Prince Albert, SK, Canada) CAD \$1.0 billion
- Project Apex (Hopkinsville, KY) \$1.0 billion
- Project Connect (Austin, TX) \$11.0 billion
- Puget Sound Gateway Program (Seattle and Tacoma, WA) \$2.7 billion
- Purple Line Extension (Los Angeles, CA) \$9.5 billion
- QTS New Albany Data Centers (New Albany, OH) \$1.5 billion
- Rady Children’s Hospital Expansion (San Diego, CA) \$1.4 billion
- Red Line Extension (Chicago, IL) \$5.3 billion
- Réseau Express Métropolitain (Montreal, QC, Canada) CAD \$8.0 billion
- Salt Lake City International Airport Redevelopment
(Salt Lake City, UT) \$4.1 billion
- Samsung Semiconductor Manufacturing Facility (Taylor, TX) \$25 billion
- San Diego State University Mission Valley (Mission Valley, CA) \$3.5 billion
- Savannah River Site Remediation (Aiken, SC) \$91 billion to \$109 billion
- Second Avenue Subway, Phase Two (New York, NY) \$6.4 billion
- Sharp HealthCare Building Program (San Diego, CA) \$2.6 billion
- Sound Transit 3 (Tacoma, Federal Way, Everett and Issaquah, WA) \$54 billion
- Southeast Connector (Fort Worth, TX) \$1.6 billion
- Southern Nevada Supplemental Airport (Clark County, NV) up to \$14 billion
- Texas High-Speed Rail (Dallas to Houston, TX) \$33.6 billion
- Texas Instruments Semiconductor Plants (Sherman, TX and Lehi, UT) . . \$41 billion
- Tower Fifth (New York, NY) >\$1 billion
- Treasure Island (San Francisco, CA) \$1.5 billion
- TSMC Semiconductor Manufacturing Facilities (Phoenix, AZ) \$65 billion
- Tunnel & Reservoir Plan (Chicago, IL) >\$3 billion
- UC San Diego Hillcrest Medical Campus Expansion (San Diego, CA) . . . \$3.0 billion
- Uline Basin Railway (Vernal, UT) \$1.5 billion
- Ultium Cells Manufacturing Plant (Lansing, MI) \$2.6 billion
- Universal Epic Universe (Orlando, FL) \$3 billion to \$4 billion
- UPMC Presbyterian Hospital Expansion (Pittsburgh, PA) \$1.5 billion
- UT Southwestern Pediatric Hospital (Dallas, TX) \$4.5 billion
- Vegas Loop Expansion (Paradise, NV) \$1.5 billion
- World Trade Center Rebuild (New York, NY) \$32 billion

175 PARK AVENUE

4.1 Project Description

In New York City, 175 Park Avenue, also known as Project Commodore, will replace the current Grand Hyatt Hotel with a 1,645 foot tall skyscraper housing a mix of offices, a hotel, and public spaces.

4.2 Schedule and Cost

With a projected construction cost of about \$3 billion, 175 Park Avenue has a 2030 preliminary completion date. Demolition of the original hotel, built in 1919, began in 2023 and will take 18 months; construction will take 47 months.

4.3 Design and Developments

Midtown East rezoning legislation enacted by New York City in the 2010s permitted developers to transfer unused air rights from Grand Central Terminal to neighboring sites, including the construction of high-rise buildings on these sites. This allowed construction of the 175 Park Avenue skyscraper.

The Art Deco architecture of the glass and steel structure has been designed to harmonize with the adjacent Grand Central Terminal.

The inverted tapering of the building's base allows for an approximately 24,000 sq. ft. elevated public terrace, wrapped around the building's base and accessible by stair and elevators from 42nd Street.

The new 500-room hotel will be managed by Hyatt.

4.4 Key Players

The developers are RXR Realty (www.rxrealty.com) and TF Cornerstone (www.tfcornestone.com). They acquired the site in 2019.

Skidmore, Owings & Merrill (www.som.com) is the architect for 175 Park Avenue.



175 Park Avenue, in New York City, will be completed in 2030. (Photo credit: Skidmore, Owings & Merrill)

2028 SUMMER OLYMPICS

5.1 Overview

To be held in Los Angeles, California, the 2028 Summer Olympic Games are scheduled for July 21 to August 6, 2028.

Los Angeles does not plan to build any permanent venues for the Olympics in 2028. Instead of new venues, the games will be hosted across the city's numerous existing sports venues, arenas, and conference centers, supplemented with several specialist temporary venues.

5.2 Cost Assessment

As of August 2024, Los Angeles announced an estimated budget of roughly \$7 billion. That figure is 30% higher than the original cost estimate, but still less than the \$9 billion spent for the 2024 Summer Olympics in Paris, France.

5.3 Venues

The facilities of Los Angeles' professional sports teams LA Galaxy, Los Angeles Chargers, Los Angeles Lakers, Los Angeles Kings and LA Clippers, including the recently completed SoFi Stadium and Intuit Dome, will serve as Olympic venues.

Several venues that hosted the 1932 Summer Olympics in Los Angeles will also be used, including the Los Angeles Swimming Stadium and Long Beach Marine Stadium. The Los Angeles Memorial Coliseum will host its third Olympic games.

Other events will take place in a combination of indoor arenas and temporary outdoor facilities, including a multi-sport venue alongside the Los Angeles River and a temporary whitewater center in Oklahoma City, OK.

The following is a summary of venues for the 2028 Summer Olympics:

- Crypto.com Arena: gymnastics
- Devon Park: softball
- Dignity Health Sports Park: rugby, modern pentathlon, cycling, tennis, and field hockey
- Galen Center: badminton
- Honda Center: volleyball
- Intuit Dome: basketball
- Long Beach Arena: handball

- Long Beach Marine Stadium: rowing and canoe sprint
- Los Angeles Convention Center: fencing, taekwondo, table tennis, judo, and wrestling
- Los Angeles Memorial Coliseum: track & field
- Los Angeles Swimming Stadium: diving
- McClendon Whitewater Center: canoe slalom
- Peacock Theater: weightlifting
- Sepulveda Basin Recreation Area: archery, BMX, and skateboarding
- SoFi Stadium: swimming

5.4 Olympic Village

Construction on the Olympic Village for the Los Angeles 2028 (LA28) Olympic and Paralympic Games began in early 2023. The project is expected to be completed by mid-2028, just in time for the Games. The Village is being built to accommodate an estimated 15,000 athletes competing in the Olympics and 8,000 in the Paralympics.

The Olympic Village will have some 3,000 residential units, including apartments, dormitories, townhouses, and single-family homes. There will be dining halls and restaurants, medical facilities, and transportation services. Measures will be in place to ensure the safety and security of residents.

Construction plans for the Olympic Village include temporary housing units and facilities in various parts of Los Angeles, the construction of new facilities, and upgrades to existing facilities.

Rather than being centralized in one location, the Olympic Village will be spread across different areas of the city, including the Harbor area of Los Angeles, near the Port of Los Angeles, the Los Angeles Waterfront, the Los Angeles Convention Center, and Dodger Stadium. The sites will cover approximately 298 acres of land, including a former rail yard.

High priority is being given to sustainability in the design and construction. The goal is to attain LEED (Leadership in Energy and Environmental Design) certification.

5.5 Use Of Mass Transportation

In their winning bid to host the 2028 Summer Olympics, Los Angeles pledged that the games would be the greenest ever, including making access to venues and events virtually car-free. The city is working on transit upgrades to accommodate hundreds of thousands of visitors.

The plan by Metro (www.metro.net) to improve the transit system in time for the Olympics, dubbed 28 by '28, includes a combination of long-planned upgrades and quicker fixes. In 2023, Metro announced plans for the longest light-rail line in the U.S., providing a direct route from East Los Angeles to Santa Monica.

5.6 Project Updates

LA28 (<https://la28.org>), organizer of the 2028 Olympics, posts updates at <https://la28.org/en/about-la28.html>.