HOK | TALL BUILDINGS
HOK’s mission is to deliver exceptional design ideas and solutions through the creative blending of human need, environmental stewardship, value creation, science and art.
Tall buildings give form to human aspiration. For the past two centuries, they have served as powerful expressions of our creativity, knowledge and will. They are symbols of their time and place.

As people around the world gravitate toward urban cores, how will our big cities continue to add density while preserving vital open space? The cities of the future will ultimately have just one direction to grow: up. One can imagine vertical cities with clusters of interrelated high-rises linked by serial thoroughfares and side streets. In these vibrant mixed-use towers, people will live, work, shop and choose from numerous dining and entertainment options. Green zones and public plazas within the buildings will sustain the people who occupy these 24-hour environments.

This book demonstrates how HOK’s architects have approached tall building design in the recent past and how global social and economic forces are transforming the towers of the future.

Readers will see that each tall building has its own personality and character. Some are iconic, while others fit comfortably into their context.

Each of HOK’s tall buildings integrate sculpture and science to create a sustainable, high-performance structure. The forms emerge from our clients’ needs as well as from the building program, structural and vertical transportation systems, site, climate and culture.

We thank our clients for their trust, vision and partnership as together we give shape to the future landscape of tall buildings and urban cores.

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As we compiled the projects for HOK Tall Buildings, the world map showing their locations began to tell a story. This map illustrates the number and sheer monumentality of the tall buildings rising in Asia and the Middle East, reflecting the economic growth and optimism of these regions.
Abaad Tower
Dubai, UAE
465,000 sq. ft. / 43,200 sq. m.
Height: 656 feet / 200 meters
45 stories
Design completion: 2008

With clean lines and carefully designed details, this speculative office building for Abaad Real Estate Company creates a strong architectural statement along Sheikh Zayed Road, Dubai’s major highway.

The tower’s silhouette, facade and pattern serve to create a building that commands attention among the surrounding corporate and institutional towers.

The facade integrates aluminum and fritted glass in several combinations: prefinished aluminum engineered wall systems, aluminum facade louver system, channel glass facade system, curtain glass facade system and curtainwall.

The interior and landscape reinforce the architectural concept through use of similar materials, rhythms and patterns to create a serene, harmonious environment.

The flexible floor plates, strong identity and numerous amenities help attract corporate tenants.
▲ sky terrace floor plan
▲ typical high-rise floor plan
▲ ground floor plan
▲ typical low-rise floor plan

1. drop-off
2. reception
3. retail / cafe
4. meeting rooms
5. office
6. service
7. vehicular access
8. loading

▲ south elevation
▲ west elevation
▲ north elevation

ABAAD TOWER

▲ south elevation ▲ west elevation ▲ east elevation ▲ north elevation
1. Aluminum glass screen
2. Double-glazed curtain wall with ceramic frit
3. Vertical aluminum mullion cap
4. Prefinished aluminum facade system
5. Double-glazing with horizontal ceramic frit
6. Spandrel glass panel
7. Prefinished glass facade system
8. Aluminum facade louver system
9. Prefinished aluminum facade system
10. Sealed double glazing in aluminum frame
11. Prefinished aluminum column cap

▲ channel glass study

▲ sky terrace section

◄ material diagram
Tall buildings

The new headquarters for Abu Dhabi National Oil Company symbolizes the company’s importance in the development of the United Arab Emirates. Located on one of Abu Dhabi’s most prominent urban sites, the tower will create a new city landmark while articulating ADNOC’s role as one of the world’s most dynamic, influential petroleum corporations. The proximity of the Emirates Palace Hotel adds to the site’s exclusivity, with the tower serving as the primary view for VIPs and patrons at the Emirates Palace complex.

The structure’s design maximizes views of the Arabian Gulf and takes advantage of the site’s prime location through careful massing of the tower and placement of the surrounding courtyards, plazas, and landscape. The design combines majestic spaces and high-quality materials. To maximize flexibility, offices are organized with a modular approach that is interchangeable and repeatable.

The tower’s north-south orientation minimizes the ground-level footprint, leaving ample space for landscaped amenity space. A rectilinear podium extends from the base of the tower. A curvilinear auditorium adjacent to the tower acts as a contrasting sculptural element.

Extending south of the tower structure, the three-level rectangular podium houses employee services, retail space, the service loading area, a heritage museum, and the main lobby and circulation space.

Abu Dhabi National Oil Company Headquarters
Abu Dhabi, UAE

▲ renderings

▲ lobby facade

1.9 million sq. ft. / 175,300 sq. m.
Height: 1,123 feet / 342 meters
74 stories
Completion: 2015
This tower pair is designed as one in a series of central towers defining a new business district in Riyadh. Planned to create a new city center for Riyadh, the proposed mixed-use development includes a primary tower containing office space with a second tower supporting a five-star hotel and upper-level luxury condominiums.

The design team formed and oriented these elliptical towers to create a powerful presence while minimizing solar heat gain. The strategy provides privacy for the hotel and housing tower, with their close proximity enhancing the towers' visual strength and energy efficiency. Both are enveloped with highly efficient structural exoskeletons that define building scale and character while providing shading and screening for each tower.

Undergirding the development is a 3,500-car parking structure that provides new ground for the building's podium and urban gardens. This podium unites the complex and offers users access to retail, entertainment and professional services within a garden setting.

Ad Dahna Towers
Riyadh, Saudi Arabia

2 million sq. ft. / 200,000 sq. m.

Tower 1:
Height: 984 feet / 300 meters
70 stories
Tower 2:
Height: 787 feet / 240 meters
55 stories
Competition: 2008
Ad Dahna Towers

1. atrium
2. retail
3. restaurant
4. office lobby
5. hotel lobby
6. condo lobby

- high-performance triple glazing
- insulated concrete exoskeleton with metal rain screen cladding
- Mashrabiya
- section
- site plan
- level 2 floor plan
- level 21 floor plan
- level 45 floor plan

- retail
- restaurant
- hotel
- condominium
Rising on a triangular plot within the urban fabric of Singapore’s central business district, this contemporary office tower contains Class A offices with small-scale retail in its entrance lobby.

The 20-story office is a highly energy-efficient glass box with individual offices designed for maximum flexibility as sustainable working environments.

Set in a tranquil garden with abundant local flora, the podium provides a unified and elegant architectural focus. The podium’s metal skin facade creates a floating free form that reflects Malay traditions while delivering a functional elevation with natural ventilation.

Access into the site is direct and efficient. In addition to an at-grade vehicular drop-off area, two levels of car parking are raised above a generous ground floor lobby height to provide naturally ventilated parking. A two-way helical ramp offers easy access to this parking levels.

20 Anson Road
Singapore

253,000 sq. ft. / 23,500 sq. m.
Height: 351 feet / 107 meters
20 stories
Completion: 2009

view from street
As the centerpiece of an extensive mixed-use development in central Jakarta, this tower is the new corporate headquarters for one of Indonesia’s premier land development corporations.

A sequence of rotating floor plates, extending the height of the building past the tower’s striking shape. The complex, modular facade system creates a collection of unique forms and textures.

In addition to commercial office space, the structure includes an art gallery, café and restaurant, conferencing facilities, executive suites and a private rooftop helipad.

870,000 sq. ft. / 90,000 sq. m.
Height: 700 feet / 214 meters
48 stories
Completion: 2009

Bakrie Tower
Jakarta, Indonesia

As the centerpiece of an extensive mixed-use development in central Jakarta, this tower is the new corporate headquarters for one of Indonesia’s premier land development corporations.

A sequence of rotating floor plates extending the height of the building past the tower’s striking shape. The complex, modular facade system creates a collection of unique forms and textures.

In addition to commercial office space, the structure includes an art gallery, café and restaurant, conferencing facilities, executive suites and a private rooftop helipad.
Perched on a hilltop site overlooking Baku Bay and the old city center, this iconic trio of buildings transforms the Baku skyline while advancing the city’s high-tech identity.

Visible from most vantage points in the city, the towers symbolize the revitalization of Baku and its entry into the 21st century. The towers’ location opposite Azerbaijan’s parliament buildings creates a new focal point for the Baku community.

Known as the “region of eternal fires,” Azerbaijan’s history of fire worship and its natural gas resources inspired the unique design of the three flame-shaped towers. Designers used parametric modeling to translate the intricate conceptual forms into a simplified “kit” of construction elements.

Though they appear similar from the outside, each of the three towers is designed to serve a unique function:

- **Tower 1:**
  - Height: 620 feet / 190 meters
  - 33 stories
  - 2.5 million sq. ft. / 234,500 sq. m. (residential)
  - Completed 2013

- **Tower 2:**
  - Height: 520 feet / 160 meters
  - 30 stories
  - 2.3 million sq. ft. / 210,000 sq. m. (hotel)
  - Completed 2013

- **Tower 3:**
  - Height: 460 feet / 140 meters
  - 28 stories
  - 2.3 million sq. ft. / 210,000 sq. m. (office)
  - Completed 2013

Located on the west side of the complex, the office tower includes more than 33,000 square meters of flexible, Class A commercial office space.

A retail podium anchors the towers, providing leisure and retail amenities such as cinemas and shopping.

LED lights on the exterior of the buildings create a flickering effect that enhances the “flame” concept at night.

Baku Flame Towers is a project by Azinko Development MMC, with DIA Holdings serving as design-build contractors.
BAKU FLAME TOWERS

1. hotel tower
2. residential tower
3. office tower
4. mall entrance
5. mall level 2 retail
6. mall entrance level 1
7. retail units
8. open to below
9. cinema complex

▲ level 2 retail floor plan

▲ view to towers
BAKU FLAME TOWERS

View of harbor + flame towers
Forming the new banking gateway at the Istanbul International Financial Center, these paired tower exemplify the emergence of Turkey as a center of commerce at the crossroads of two continents.

The two glass structures symbolize the joining of east and west in a harmonious, yet distinctive expression that asserts the bank’s arrival onto the world stage.

The strong, simple extruded tower forms are enhanced by an intelligent glass skin with bay windows that flow up from the bases of the towers. Traversing the facades, the flowing pattern serves as a metaphor for the cascading waters of the mighty Bosphorus linking Europe and Asia.

Bank Headquarters for Confidential Client
Istanbul, Turkey

Tower 1:
- 1.4 million sq. ft. / 130,000 sq. m.
- Height: 656 feet / 200 meters
- 50 stories

Tower 2:
- 918,900 sq. ft. / 85,000 sq. m.
- Height: 492 feet / 150 meters
- 40 stories

Competition: 2013

Acknowledging the historical context of the region, the contemporary design is inspired by the traditional Seljuk style of Turkish architecture that shaped monumental stone buildings with diamond-shaped patterns in the 12th and 13th centuries.

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The strong, simple extruded tower forms are enhanced by an intelligent glass skin with bay windows that flow up from the bases of the towers. Traversing the facades, the flowing pattern serves as a metaphor for the cascading waters of the mighty Bosphorus linking Europe and Asia.
Barclays’ headquarters tower provides an efficient, high-performance office environment for more than 6,000 people. The tower features 30 upper levels arranged over the ground level and four basement levels.

The design of the floor plan deviates from a conventional approach by concentrating service cores to the north of the site, which allows for a bank of atria on the south facade. These five stacked atria, each six stories in height, create lofty spaces that allow natural light to penetrate deep into the office plan.

Each atrium has a visual theme, offering areas for meetings or relaxation among informal plantings and striking commissioned artwork.

The ground-floor lobby, one of the largest in Canary Wharf, is linked below street level to Canary Wharf Underground Station. Other building amenities include a health and fitness center, a 365-seat restaurant and training facilities.

Acting as an energy buffer, the atria combine with the green roof and other sustainable strategies to help the tower achieve a BREEAM Excellent rating.

The structure of the tower was designed to address several emergency conditions, including the accommodation of the building’s entire population within the internal stair cores.

The tower is clad predominantly in glass with reflective steel mullions. The simplified atria facade is hung from a series of steel masts which soar gracefully out of the south facade. Elsewhere, the character of the facade is dependent on the light, catching either the verticality of the mullions or the horizontal glass and panel arrangement of each level.
▲ ground floor plan
1. drop-off area
2. main entrance
3. double-height lobby
4. access from lower ground
5. west entrance pedestrian bridge
6. west India dock
7. dockside landscaped terrace

▲ typical floor plan
1. six-story stacked atrium
2. office floor

▲ atrium

▲ south elevation

▲ west elevation

▲ facade

▲ lobby
These two slender towers — one an office tower and the other a hotel — are located in the heart of Beijing, on the main east-west axis road leading to the Forbidden City. Reimagining the typical tower arrangement of stacking a hotel above office space, the design team placed the elements side-by-side as independent structures, connected by an atrium.

A series of vertically organized, small-scaled neighborhood courtyards link the buildings. Conceived as vertical "hutongs," the spaces draw inspiration from the narrow alleys that have contributed to Beijing’s historical fabric. Placed on the site to take advantage of natural daylighting and views, the towers provide extremely flexible floor plates.

Structurally, the two towers are independent, achieving their slenderness through the use of side-loaded cores that support large, open floor plates.

The structural design is a hybrid of steel and concrete construction, with the primary side-loaded cores composed of concrete, steel-braced frames around the atria. The 190-meter tall hotel has flat concrete slab floor plates, while the 290-meter office tower has composite steel floor plates.

Beijing Central Business District Block Z8
Beijing, China

1.8 million sq. ft. / 167,225 sq. m.
Height: 951 feet / 290 meters
60 stories
Competition: 2010

These two slender towers — one an office tower and the other a hotel — are located in the heart of Beijing, on the main east-west axis road leading to the Forbidden City. Reimagining the typical tower arrangement of stacking a hotel above office space, the design team placed the elements side-by-side as independent structures, connected by an atrium.

A series of vertically organized, small-scaled neighborhood courtyards link the buildings. Conceived as vertical "hutongs," the spaces draw inspiration from the narrow alleys that have contributed to Beijing’s historical fabric. Placed on the site to take advantage of natural daylighting and views, the towers provide extremely flexible floor plates.

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BEIJING CENTRAL BUSINESS DISTRICT BLOCK Z8

Ground level floor plan:

1. Office lobby
2. Hotel lobby
3. Amenities shared space
4. Office drop-off
5. Hotel drop-off

Typical upper level floor plan:

1. Office
2. Meeting
3. Hotel
4. Lift lobby

West elevation

Massing diagram

South elevation
Reflecting the strong Chinese economy, this mixed-use tower design symbolizes the timeless form of a mountain rising above the activity taking place in the heart of Beijing’s central business district.

The design creates a vibrant, new urban center where finance, culture and information converge. Office, hotel and residential functions are housed within a modern, timeless structure that embodies the city’s traditions and aspirations.

Square and circular elements combine to create an eight-sided geometric form that ascends to the sky and tapers at its peak. At its upper levels, the tower sports two separate forms that echo one another, providing dramatic views of the city’s historic center and symbolizing its future prosperity.

A high-performance curtain wall system integrates three distinct wall types that combine composite glass and stone to take advantage of natural daylight and energy harvesting while delivering optimal energy efficiency. The screened texture of the walls reflects traditional architectural elements.

A series of small, neighborhood-scaled parks throughout the structure creates intimate green spaces.

Beijing Central Business District Block Z15
Beijing, China
BEIJING CENTRAL BUSINESS DISTRICT BLOCK Z15

1. Office lobby
2. Hotel lobby
3. Residential/service units
4. Drop-off
5. Water feature
6. Sunken plaza
7. Wood public plaza

▲ ground level floor plan
▲ typical office floor plan
▲ typical hotel floor plan
Featuring an exterior skin that simulates a ship’s billowing, translucent sail, the California State Teachers’ Retirement System (CalSTRS) headquarters facility is on a former shipbuilding site at the nexus of two important rivers: the Sacramento and the American. The dynamic structure salutes the history of the city’s riverfront while incorporating design strategies for energy efficiency.

The ideas of translucency and water are emphasized inside the building through the primary public art feature. Dubbed the “River Room,” the glass feature lines the main circulation space in the lobby, where it shimmers, shifts and scatters light throughout the day.

Housing approximately 850 staff, the headquarters building includes offices, an auditorium, an audiovisual and editing studio, a dining facility, a conference center and a board room. The tower includes 13 floor levels and two levels of mechanical and food bars, with the podium occupying the first and second levels. Parking starts on the ground level and rises five levels within the podium.

In general office areas, the design creates an open plan with low-height partitions, providing 90 percent of occupants with access to natural light. To ensure that individuals never sit with their backs to workstation openings, this planning concept is based on a 120-degree orientation. The workstation units feature a sail-like appendage that reinforces the ship imagery that pervades the facility. An underfloor air distribution system with individual comfort control reduces energy consumption.

California State Teachers’ Retirement System Headquarters
West Sacramento, California, USA

409,000 sq. ft. / 38,000 sq. m.
Height: 300 feet / 91 meters
19 stories
Completion: 2008
Soaring 1,260 feet above the surrounding cityscape, the CMA Tower is the tallest of the five structures that make up the financial plaza of the King Abdullah Financial District. The team designed the iconic tower as the centerpiece of this new office district. It symbolizes the beginning of a new era of global financial leadership within Saudi Arabia’s capital city.

The Capital Market Authority will occupy 300,000 square feet of space in the top floors of the 76-story office tower.

Representing timelessness and openness, the tower’s transparency relates to the cultural value of the crystals found along the wadis in the Saudi Arabian desert. This transparency creates internal openness and provides access to natural light within the workplace.

A high-performance solar control system moderates the intense Saudi light and heat. An external layer of fins, pergolas and perforated panels provide shade, amplifying the thermal efficiency of the triple-pane, unitized glazing. Together, these shading devices reduce solar gain and internal cooling loads, reducing HVAC requirements. Electrical energy is reclaimed through a photovoltaic array installation on the tower’s roof.

Eliminating copper-wire-based distribution systems for data and security further reduces internal heat gain. The design uses the “cool” technologies of wireless communication, air-blown fiber optics and converged networks. The intelligent infrastructure merges voice, data and video networks to reduce costs, centralize management and boost productivity. To accommodate future expansion and upgraded technology, all systems have redundant capacity.

The podium structure at the base of the tower integrates public circulation with private amenity spaces, including dining facilities and a two-story auditorium.

HOK designed the tower, which is expected to achieve LEED Gold certification, in collaboration with Omrania & Associates.
CAPITAL MARKET AUTHORITY TOWER

▲ concept sketches

▲ process renderings
▲ physical model

▲ podium with structural diagrid

▲ podium with enclosure system

▲ podium with shroud
As the signature element of a 13-acre mixed-use master plan developed by HOK, the upscale residential tower rises out of an urban garden to establish a commanding presence among the surrounding lower-scale buildings. A contemporary glass and metal facade appeals to high-end tenants and distinguishes the structure from the typical concrete and tile construction of Indian buildings.

Drawing inspiration from local stone quarries, the 22-story building incorporates a series of stacked duplex units that gently shift back and forth to create terraces with panoramic views of the adjacent wetlands.

The interior environment reimagines the traditional mid-rise Indian apartment as a vertical family living space that features an open living room, kitchen, and dining area on the first level and a more private bedroom and living space on level two.

Located on the north side of Bangalore, the development is the first element of an emerging urban district between the city’s central business district and Bangalore International Airport.

Century Square
Bangalore, India

130,550 sq. ft. / 12,130 sq. m.
Height: 260 feet / 80 meters
22 stories
Design completion: 2012
1. entry lobby
2. lobby
3. meeting room
4. typical unit
5. private gardens
6. roof terrace

▲ ground floor plan
▲ night rendering
▲ penthouse floor plan
▲ elevation
The design for the Changsha Dongpailou Complex brings together a rich variety of experiences. The complex integrates office high-rises, apartments and a hotel with a series of unique shopping areas and entertainment venues.

The architecture evokes notable regional landmarks and showcases its rich natural beauty. The site, which is just east of the Xiang River, provided natural design inspiration. The active interior spaces elicit a sense of wonder and recall the historic developments of the river. A glassy, serpentine canopy hovers overhead, filtering light while creating an attractive view for the tower occupants looking down from above.

While the retail podium embodies the fluidity of a river, the towers on the perimeter recall the spectacular sandstone spires of the nearby Wulingyuan National Park. Soaring above the city, the 330-meter-tall Office Tower West commands attention with its crystalline form and dramatic, sloping east wall. The tower sits with its back to the river, announcing its presence as an icon for the city. From other perspectives, the slender, elegant tower appears to dissolve into the surrounding sky.

Both the Hotel / Apartment Tower East and Office Tower East adopt a language of tapering corners, establishing a consistent architectural vision for the development while allowing for subtle individual building expressions. Tapered corners also evident in the design of the Soho Towers East and West. Though they differ from the larger towers in function and size, their shared geometry and facade design enable them to comfortably coexist within a larger family of forms.

The full length of the development is connected by a dynamic, yet easily navigable retail path that flows between the western subway and the shopping districts to the south. Bisected by a visitor drop-off road, nine levels of traditional mall spaces occupy the west portion of the site. Five levels of street-scale shopping are located to the east. These different zones engage participants in a variety of experiences.

Overall development: 12.38 million sq. ft. / 1.15 million sq. m.
Office Tower West height: 1,082 feet / 330 meters
89 stories
Competition: 2011

Changsha Furong District Dongpailou Complex
Changsha, China

The full length of the development is connected by a dynamic, yet easily navigable retail path that flows between the western subway and the shopping districts to the south. Bisected by a visitor drop-off road, nine levels of traditional mall spaces occupy the west portion of the site. Five levels of street-scale shopping are located to the east. These different zones engage participants in a variety of experiences.
Crystal Tower, a delicate balance of sharp, angular forms of glass and metal, rises from the city skyline in the Al-Sharq district of Kuwait City. The design contrasts with the solidity and sweeping contours of the HOK-designed Intercontinental Mixed Use Tower several blocks away.

Composed of sloped glass and a metal panel curtain wall, the tower features elegant, slender proportions and a compact floor plate. The building contains 45 stories of office space, with a multi-level stone and glass podium at the ground level housing a three-story entrance atrium, retail spaces, building services and two levels of underground parking.

A striking open-air sky atrium at mid-tower height relates to the surrounding context of mid-rise buildings while providing sweeping, panoramic views. A 20-meter-tall steel spire at the top emphasizes the building’s dynamic asymmetrical composition.

Crystal Tower’s overall slender axis ratio of nearly seven-to-one posed a structural engineering challenge for the design team. A cast-in-place concrete wall replaces the original steel V-brace, absorbing the tower’s twisting motion under wind loads. The addition of perimeter tension columns in the concrete core compensates for the unbalanced twisting of the typical floor plate.

After the wind tunnel testing, the team incorporated chamfers along the corners of the tower and used the firefighting water tank at the top as a dampening element. This refinement reduced overall accelerations for serviceability while enhancing occupant comfort.

Crystal Tower
Kuwait City, Kuwait

452,000 sq. ft. / 42,000 sq. m.
Height: 797 feet / 240 meters
Design completion: 2007

452,000 sq. ft. / 42,000 sq. m.
Height: 797 feet / 240 meters
Design completion: 2007

Crystal Tower
Kuwait City, Kuwait

452,000 sq. ft. / 42,000 sq. m.
Height: 797 feet / 240 meters
Design completion: 2007

Crystal Tower
Kuwait City, Kuwait

452,000 sq. ft. / 42,000 sq. m.
Height: 797 feet / 240 meters
Design completion: 2007
CRYSTAL TOWER

▲ ground level floor plan
1. atrium
2. retail
3. elevator lobby
4. office
5. sky atrium

▲ upper level floor plan

▲ sky level floor plan

▲ sectional model

▲ rendered model
CRYSTAL TOWER

construction

construction
HOK won a design competition for the expansion of Dubai’s World Trade Centre and the development of a new business and cultural district in the heart of Dubai. The new development and expansion of the original facilities presented the opportunity to expand on the success of the existing World Trade Centre and deliver a new civic and business focus for the city. The project would anchor one of the new development districts.

The design brings together opera, theatre and museum buildings with new exhibition facilities in an integrated pedestrian quarter. Offices, hotels and restaurants, retail and leisure attractions help create a thriving mixed-use environment.

Located next to the Emirates Towers, the existing World Trade Centre facilities and icons, 1983 office tower represent Dubai’s first step in creating the new high-rise district along Sheikh Zayed Road.

The tower design creates an icon that serves as a marker for the World Trade Centre and Dubai’s skyline. The efficient floor plate uses a small portion of the overall site, leaving room for open spaces and gardens around the tower. A structural diagrid gives the building triangular, prism-like shapes, creating a highly efficient structure while supporting the tower’s Islamic aesthetic.

In addition to structural and aesthetic benefits, the diagrid provides the first level of shading from the intense sunlight of Dubai. The design calls for ceramic frit to be fused to the glass, controlling the region towards the sun and minimizing heat gain. The frit is designed in an abstract, Islamic pattern that complements the tower’s geometric patterns.

**Dubai World Trade Centre**
Dubai, UAE

- **Height:** 1,382 feet / 421 meters
- **Stories:** 100
- **Floor Area:** 12.6 million sq. ft. / 1.17 million sq. m.
- **Completion:** 2006

Greenland Center Southern New City High-Rise
Changchun, China

As the tallest structure in Jilin Province, the office and residential tower creates an icon in the new city center of Changchun. It symbolizes a gateway to northeast China, a region at the heart of the country’s automobile and high tech industrial economy.

Located at the nexus of two prominent thoroughfares, the tower shares a highly accessible site with a smaller scale office building, a hotel and two apartment buildings. The overall urban development creates an integrated living and working environment that establishes a new identity for Changchun while reflecting local culture and tradition.

A double-skin facade reduces heating and cooling costs by minimizing heat transfer at the building envelope. Automatic external openings regulate facade conditions in response to the outside temperature.

During the summer, the facade cavity is naturally ventilated. Thermal buoyancy drives air movement through the cavity and promotes heat extraction, reducing envelope heat gain.

External openings automatically close in winter. The facade cavity retains solar gains and creates a thermal barrier at the envelope, minimizing envelope heat loss.

The site offers breathtaking views of the Yitong River and its adjacent natural wetland.

Lot A: 2.41 Million sq. ft. / 2,213,400 sq. m.
Lot A East: 0.45 Million sq. ft. / 420,000 sq. m.
Height: 1,033 Feet / 315 meters
70 stories
Competition: 2010

Lot A4: 2.61 Million sq. ft. / 242,400 sq. m.
Lot A4 East: 0.91 Million sq. ft. / 85,000 sq. m.
Height: 1,033 Feet / 313 meters
70 stories
GREENLAND CENTER SOUTHERN NEW CITY HIGH-RISE

▲ site plan
1. office tower
2. mixed-use tower
3. serviced apartment tower

▲ aerial rendering
1. access walk and brackets
2. operable inner windows
3. concrete cast in place frame
4. inner wall - modified window wall
5. outer wall - single-glazed curtain wall
6. cantilevered concrete slab

typical double-wall construction

typical residential floor

street view rendering

GREENLAND CENTER SOUTHERN NEW CITY HIGHRISE
The gently curving, triangular form of this 108-story tower reflects the boldness and symmetry of a lighthouse, creating a beacon for Dalian to the world.

Three sheaths of high-performance, blue-tinted glass extend the full height of the mixed-use building. Continuous at the office levels, the glass separate at the hotel and residential levels to reveal gardens, residences and terraces clad in low-iron clear glass with horizontal sunshades. The sheaths extend to the top of the tower, revealing a public observation deck above organically shaped openings that reduce wind pressure.

The fluidity of the landscaping informs the design of the dramatic, amorphous opening at the top of the tower and the curvilinear retail podium that extends to the adjacent convention center, creating the entire site with the nearby ocean waves.

Each side of the triangular tower provides a separate entrance and elevator bank with a unique identity that reflects its office, hotel or residential function. For the hotel and residential components, a bank of elevators at the base of the building transports residents and visitors to sky lobbies where they can take another set of elevators to their destinations.

Accessed from a lobby on the northeast side of the tower, the 30 office floors feature floor-to-ceiling glass and provide an equal 12-meter lease span on all sides. The plan accommodates simple subdivision for partial-floor tenants or efficient use by a single tenant.

Greenland Dalian East Harbor Tower
Dalian, China

5.3 million sq. ft / 497,000 sq. m
Height: 1,700 feet / 518 meters
108 stories
Completion: 2015
1. office drop-off
2. residential drop-off
3. hotel drop-off

- residential level floor plan
- hotel level floor plan
- ground level floor plan
- office level floor plan
GREENLAND DALIAN EAST HARBOR TOWER

waterfront view
Located at the heart of the Hexi central business district, this mixed-use development features a two-tower urban composition that anchors the corners of an adjacent park.

The 250-meter-tall northern tower features a 256-key hotel above 43 floors of Class A offices. The southern tower has a high-performance glass skin on the west and is anchored in stone on the east side. The facade moves in and out in long striplines along the adjacent major road.

The office tower design provides an efficient central core and panoramic vistas. With flexible 12- to 13-meter lease spans, a minimal super-column structural system, efficient elevator service and column-free corner offices, the space was designed to attract multinational corporations from across Asia.

The design placed the development within an existing master plan that prescribes the towers’ locations and programs. With high-rise developments planned on adjacent lots to the south and east, the site for the service apartment tower maximizes western views toward the river and over the low-rise exhibition and convention center.

The core at the southern end of the service apartment tower provides an exclusive drop-off and address. An underground railway is planned for future phases.

Hexi CBD Mixed-Use Development
Nanjing, China

2.37 million sq. ft. / 220,000 sq. m.
Height: 820 feet / 250 meters
60 stories
Design completion: 2008
HEXI CBD MIXED-USE DEVELOPMENT

- 1: office
- 2: hotel
- 3: dining
- 4: residential
- 5: cinema
- 6: drop-off

Site plan ▲ section
Nestled between two planned condominium towers on the southern coast of Istanbul, the design was for a confidential high-end resort along the Sea of Marmara just east of Atatürk International Airport. The property forms the centerpiece of a 40-building residential master plan along the Bosphorus.

The two-building program includes a 120-key, five-star hotel with banquet facilities, a spa/fitness center and 150 extended-stay hotel rooms.

Referencing the traditional relationship of the water’s edge in Turkish architecture, the paired towers create a waterfront gateway and destination that welcomes travelers who will visit the resort via boat or car.

Together, the buildings express the analogy of two dancers embracing, with the traditional hotel integrating more stone into the facade and the extended-stay hotel featuring more transparency.

Culturally relevant materials combine with contemporary shapes to form an elegant, environmentally sustainable property. A system of solar shades and a window wall create a dynamic, three-dimensional facade that provides a high level of visibility while minimizing solar gain. A double-wall system accommodates balconies between the walls.

Open-air public spaces and deep-cut balconies with gardens purposefully blur the distinction between indoors and outdoors, allowing guests to fully experience the magic of Istanbul.
HOTEL COMPETITION FOR CONFIDENTIAL CLIENT

site plan
1. entrance garden
2. extended-stay hotel entry
3. deluxe hotel visitor / event entry
4. deluxe hotel guest main entry
5. below-grade parking access / garage
6. deluxe hotel terrace / veranda
7. extended-stay hotel terrace
8. marina

ground level floor plan
1. deluxe hotel entrance salon
2. extended-stay hotel lobby
3. extended-stay hotel lounge
4. deluxe hotel lobby
5. pool / spa / outdoor amenities
6. pool deck / outdoor amenities

south elevation

HOTEL COMPETITION FOR CONFIDENTIAL CLIENT

site plan
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ground level floor plan
1. deluxe hotel entrance salon
2. extended-stay hotel lobby
3. extended-stay hotel lounge
4. deluxe hotel lobby
5. pool / spa / outdoor amenities
6. pool deck / outdoor amenities

south elevation
Simple, bold and expressive, IJ-Toren is the tallest building in central Amsterdam and a landmark on the city skyline.

Adjacent to the Oosterdokssilo and the HOK-designed Passenger Terminal Amsterdam, the building is anchored in its surroundings while maintaining the grand scale of the urban townscape. It symbolizes the regeneration of the city’s Eastern Docklands area.

The design concept was based on the creation of a timeless form. The rectilinear form provides a counterpoint to Passenger Terminal Amsterdam’s curving roof.

The building scale is enhanced by a bold, orthogonal grid overlaid on a curtain wall featuring four types of glazing: clear, ceramic frit, translucent and opaque white glass. Moving around the tower, each orientation combines glass in different ways to respond to the calculated level of solar gain. Subtle variations in light and texture are visible at night and during the day.

A tall, glazed corner entrance gives people views into the building, including the rising escalators and lobby with generous skylights. Each part of the building, including the core and the bay window overlooking the river, is differentiated, giving the tower an iconic look.

The floor plate allows for traditional cellular offices, as well as open-plan and team environments. This configuration, combined with the Netherlands’ prescribed narrow core-to-glass dimension, invites daylight into all areas and offers spectacular views to the city center.

IJ-Toren is part of an urban regeneration project that focuses on the city’s old docks. HOK also developed the master plan for the larger Eastern Docklands project.
intercontinental mixed-use tower
kuwait city, kuwait

as a landmark building in the new kuwait city skyline, the 48-story office and hotel tower anchors the most prominent corner of the al sharq district. its refined, yet massive, vertical proportions display sculptured layers of glass and stone.

in the urban scale, the structure marks its immediate surroundings with the "point tower" anchored by a four-story podium embellished with lavish plazas, a unique shaded plaza and a multi-level glass atrium.

the tower shape and orientation diffuse northern light and minimize solar gain while taking advantage of the striking gulf coast views. the hotel and office components are stacked to create the tallest, most efficient mixed-use configuration.

with its elongated floor plan, the tower can appear either tall and slender or massive and wide, depending on the angle from which it is viewed. shifting the tower’s solid core to the south reduces solar gain by acting as a shading element and providing thermal mass.

in the four-story podium, the major retail area and hotel amenities are organized around a luxurious atrium.

the hotel drop-off and plaza feature a cascading water feature, water jets and lush palm trees.

869,700 million sq. ft / 80,800 sq. m
height: 880 feet / 268 meters
48 stories

design completion: 2007
INTERCONTINENTAL MIXED-USE TOWER

▲ Typical hotel floor plan

▲ Typical office floor plan

▲ Site plan
1. Office lobby
2. Hotel lobby
3. Retail
4. Retail
5. Restaurant

▲ North elevation

▲ Site plan

▲ Typical hotel floor plan

▲ Typical office floor plan

▲ North elevation
Positioning Singapore as one of Asia's high-tech leaders, this landmark civic building—the tallest in the region—was the first phase of the Jurong East district. JTC is a local government authority in Singapore dedicated to the development of technology parks and community-centered industries. Its headquarters design establishes a “town hall” for the region, providing the first interface between the community and local government.

The design features a contemporary interpretation of traditional Singaporean features such as layered verandas, slatted screens, courtyards and sunshades. The open, transparent environment helps break down the government’s traditional civic face.

The tower facade is clad in a strong-back curtain wall system incorporating granite, glass and aluminum panels. The double-glazed curtain wall features low-E coating on all vision glass areas, and integral sunshade devices are built into the facade panels. A top-floor viewing gallery and observation deck offer panoramic views of the surrounding high-tech commercial district.

A combination of superformed curved aluminum fins and hand-set granite panels at the podium levels complement an entry wall comprised of four-meter-wide clear glass panels. The atrium roof system is built on a series of prismatic steel trusses spanning 30 meters across the terraced floors below.

The podium—a layered, interlocking cylinder featuring a four-story daylight—emphasizes transparency and light. Visitors enter the area through a rich facade of layered screens and landscaped transitional spaces before approaching the core—a terraced atrium. The podium also includes a 300-seat theater for public performances, a health club, staff facilities and an 800-seat dining area.
GROUND FLOOR PLAN

JURONG TOWN CORPORATION SUMMIT

▲ ground floor plan
1. main atrium
2. public lobby
3. customer service
4. retail
5. office
6. loading dock

▲ elevation
▲ facade

▲ facade
▲ sun shades

▲ elevation
This 72-story mixed-use tower, the tallest structure in Vietnam, is located within the burgeoning Cau Giay district west of Hanoi. The building houses offices, a five-star InterContinental Hotel, Calidas Hotel, retail and entertainment attractions, clinics and a convention center.

The tower anchors a vibrant development that includes two 50-story residential buildings with a total of 922 upscale apartments.

Inspired by the region’s geological formations and rich shipbuilding heritage, the buildings integrate glass, stone and screens to form contextual textures and patterns.

Extensive use of dark, reflective glass maximizes views while controlling significant heat gain from the subtropical climate.

The upper section of the tower facade features a gradient frit pattern on the glass, providing a dramatic lantern effect at night. A top-floor observatory offers panoramic views of Hanoi and features an art gallery, cinema and other unique spaces.

The tower’s simple curvilinear floor plate provides flexibility to support diverse office and hotel functions.

A podium connecting the buildings features signature retail and entertainment attractions, including Parkson Department Store and the Lotte Cinema.

Keangnam Hanoi Landmark Tower
Hanoi, Vietnam

6.84 million sq. ft. / 609,673 sq. m.
Height: 1,150 feet / 350 meters
72 stories
Completion: 2011

6.56 million sq. ft. / 609,673 sq. m.
Height: 1,150 feet / 350 meters
72 stories
Completion: 2011
As part of an overall planned site adjacent to the riverfront Lotte World amusement and retail center, this super-tall mixed-use project includes office, hotel and residential suites, an observation deck and restaurants.

The design reinterprets the traditions of Seoul’s lower-scale historic buildings into a vertical expression that fits its context. The idea of folded paper or skin wrapping a structural form — a metaphor for the intricate ceremonial wrapping of a Korean gift — guides the exterior elevation design and suggests the gesture of presenting this tower as a gift to the city.

Lotte Group offices occupy the bottom half of the tapered tower, with hotel rooms filling the center floors and residential and observation space completing the upper floors.

The integrated structural design includes a perimeter diagonal braced frame, tapered shaft with large central openings and minimized upper tower movement, yielding a lighter-weight tonnage cost. Primary mechanical systems are vertically organized throughout the tower.

The east-west orientation of the tower’s long elevations maximizes opportunities for daylight and wind harvesting. The intelligent skin integrates photovoltaic panels.

Lotte Mooselon Tower
Seoul, South Korea

2.5 million sq. ft / 232,300 sq. m.
Height: 1,919 feet / 585 meters
130 stories
Competition: 2005
LOTTE MOOSELON TOWER
The slender urban form of this Class A office tower will transform the South of Market (SoMa) district of San Francisco. Tapered facade corners and a sculptural cornice line define the building’s form. A double-height ground floor lobby, pedestrian plazas and improvements along Shaw Alley shape the street-level experience.

Expected to be one of the first LEED Core and Shell Gold-pre-certified office towers in San Francisco, the building’s advanced mechanical systems, high-performance skin and water use efficiencies will promote sustainability, occupant comfort and productivity. The facade will feature high-performance glass that integrates with indoor controls to enhance its energy and light transmission performance.

The project will provide 3,750 square feet of ground-floor retail space to serve building occupants, visitors and city residents. The building lobby includes publicly accessible open space that flows into the covered outdoor plaza, featuring flexible seating, generous landscaping and an espresso bar.

The addition of new trees and a continuous band of planting along Shaw Alley softens the streetscape and enhances the pedestrian environment linking the building to the adjacent Transbay Terminal.

To expand the public open space, the project proposes to close Shaw Alley to vehicular traffic during the lunch hour on weekdays. New concrete paving in the alley will add pedestrian scale and texture, establishing visual continuity.

354,000 sq. ft. / 32,900 sq. m.
Height: 370 feet / 115 meters
27 stories
Completion: 2014

535 Mission Street
San Francisco, California, USA
site plan

1. lobby
2. restaurant
3. parking entry
4. loading area

535 MISSION STREET

MINNA STREET
The design of this office tower creates an iconic new landmark for the capital of Mongolia.

The site was once home to Mongolian democracy leader Tsakhiagiin Elbegdorj. Located at a major intersection near Sükhbaatar Square, the site’s history and proximity to Ulaanbaatar’s government center demonstrate the tower’s relationship to the history of democracy in Mongolia.

This democratic heritage inspired three elements of the design concept: “of the people,” “by the people” and “for the people.” The triangles featured in the design reference this concept and the nearby mountains. They also reflect the use of triangular forms in Mongolian culture.

Twisting as it rises into the air, the tower’s form is based on symmetry and basic geometry, ensuring a unique yet structurally sound solution. The building’s triangular planes are geometrically configured to withstand seismic conditions and strong winds. The twisting, rectangular floor plates provide a column-free interior environment.

Details such as copper rainshades allude to Mongolia’s strong mining industry. The copper- and aluminium-clad facade will be enhanced as it is exposed to normal weathering.

With the exoskeleton supporting the building’s weight, interior spaces are carved out to provide green space on upper levels. Combined with public podium and a sunken plaza, three sky gardens help create a dynamic destination for commerce.

At the plaza level, a statue and the facade of a one-story building pay homage to the home of Mongolia’s “father of democracy.”

Mongolia Democracy Tower
Ulaanbaatar, Mongolia

721,000 sq. ft. / 7,750 sq. m.
Height: 656 feet / 200 meters
42 stories
Design completion: 2009
MONGOLIA DEMOCRACY TOWER

view from public square
This pair of 75-story mixed-use buildings will enliven the dense Moscow City section of downtown Moscow.

Light stone and glass cladding distinguish these office and residential towers from the nearby extruded glass towers.

Careful consideration of the climate, window-to-wall ratios and optimized daylight harvesting is embedded in the exterior wall envelope design and vertical stone-to-glass expression of this intelligent building. Parametric modeling guided the development of each facade to maximize natural light while maintaining thermal comfort and views.

The towers establish a new garden destination within the dense urban context, reinterpreting the traditional gardens of the old city to enhance the connection to nature for office workers, residents and visitors.

Capped by a roof garden, the podium includes a retail mall with an expansive atrium that brings light to the center of the space and converts into an exterior space during warm-weather months.

A large, south-facing entrance plaza forms the primary visitor and pedestrian arrival address. A series of glass and stone two-story retail shops anchor the space.

HOK was awarded the project after winning an international design competition.

3.76 million sq. ft / 350,000 sq. m.
Height: 919 feet / 280 meters
75 stories
Completion: 2017

Moscow City Plots 17 + 18
Moscow, Russia
▲ elevations

▲ ground level plan
▲ podium terrace level plan
▲ lower level plan

▲ sections
This premier mixed-use development creates a vibrant destination and landmark within Nanjing’s Hexi New Town area district. Office, hospitality and retail functions converge in this world-class addition to the city’s emerging skyline. The structure advances modern, timeless and sustainable solutions, forming an easily accessible hub for international business.

Focused on the financial services sector, the building is a vital component of an ambitious master plan for Nanjing’s ongoing urbanization and growth as it expands south and west of the historic center along the banks of the Yangtze River.

The development is adjacent to the central business district to the northeast; Jiangnan River to the south; Nanjing Exhibition Center to the west and a high-end residential development to the east.

The structure integrates commercial offices, retail exhibition and trading space, and a five-star hotel.

As the tower meets the sky, an observation deck becomes a public living room for the city of Nanjing. A dramatic, sloped skylight, glass walls and viewing bridges create transparent space that celebrates the city’s grandeur.

Nanjing Financial Center
Nanjing, China

6.46 million sq. ft / 650,000 sq. m.
Height: 1,634 feet / 498 meters
103 stories
Completion: 2018
The non-uniform design of these three mixed-use towers challenges the Korean model of purely extruded, uniformly treated buildings. Variations differentiate the spaces within the overall site design and allow sustainable concepts to be expressed in the design.

The site’s residential and commercial elements function largely independent of each other. Their occasional connections enhance the site’s relationship with the city.

Sited to maximize available building area, the buildings’ south-facing glazed areas minimize the length of the east- and west-facing elevations to avoid heavy solar gains.

Housed within a three-story base, the commercial areas include a narrow retail street that frames internal courts that act as residential access points. A secondary “big box” retail area is sequenced to one side of the site.

A canal walk bisects the internal court, extending the urban axis and providing access to the space. Outside the retail area, the site’s conversion to a public space for art and community gathering. The park’s border creates a deeper street edge and retail walk that accommodates seating, restaurant overflow and other outdoor retail functions.

New Songdo City Mixed-Use Block D23
Incheon, South Korea

1.9 million sq. ft. / 184,400 sq. m.
Tower 1:
Height: 570 feet / 174 meters
50 stories
Tower 2:
Height: 534 feet / 163 meters
45 stories
Tower 3:
Height: 534 feet / 163 meters
45 stories
Completion: 2011

The rain-arcade design of these three retail-use towers challenges the Korean model of purely extruded, uniformly treated buildings. Variations differentiate the spaces within the overall site design and allow sustainable concepts to be expressed in the design.

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Located on the northern edge of New Songdo City’s Central Park, Block D22 forms a gateway to neighborhoods in the city’s northern district. The complex features three 50-story residential towers rising above an urban street edge of three-story commercial and retail space. Within the three towers are 729 residential units. The residential towers take advantage of southern exposure, with the seven, lattice-like facades of glass and aluminum providing distinct interior spaces and views for each unit. The high-performance facade enables the building to meet ASHRAE 90.1 standards and delivers natural light to 95 percent of indoor spaces.

Landscaped courts along the block minimize retail and tower footprints. Roof gardens on each of the low-rise buildings are accessible from the residential towers. Irrigated through graywater harvesting, these roof gardens reduce the heat island effect.

Designed as three sculptural forms, the towers’ distinctive basket weave facade relates to the community’s art district located on Central Park South.

New Songdo City Mixed-Use Residential Block D22
Incheon, South Korea

2.2 million sq. ft / 204,900 sq. m.
Height: 574 feet / 175 meters
50 stories
Completion: 2010
NEW SONGDO CITY MIXED-USE RESIDENTIAL BLOCK 22

- Residential tower
- Retail
- Canal/boardwalk
- Public open space
- Private auto court

Rendering
Study model
Site plan
1. Unit 1 (2,562 sq.ft.)
2. Unit 2 (1,388 sq.ft.)
3. Unit 3 (1,530 sq.ft.)
4. Unit 4 (1,637 sq.ft.)
5. Unit 5 (2,455 sq.ft.)
The Arraji Tower punctuates this master plan for the first Riyadh Financial District. This plan defines the city’s first concept for a new financial center focused on Riyadh’s future as a new center for finance in the Middle East. The plan is conceived as a dense, new urban environment and as a vibrant, mixed-use extension of Riyadh’s business and cultural life. Office, retail, leisure and mixed-market housing components are arranged around a “grand boulevard” that stretches between King Fahd Road and Olaya Street. The district is anchored by a destination shopping center to the south and the landmark Arraji Tower to the north. Two other street scales complete the new urban grid. Primary crossing streets and secondary pedestrian streets join with the grand boulevard. This approach creates a naturally shaded and cooled pedestrian environment enhanced by terraced gardens and parks to create a truly green city center.

As a transparent, accessible and highly energy efficient structure in the desert, the tower is designed to serve as an iconic representation of Saudi Arabia’s promising future. The team designed two tower schemes. Each is based on principles of openness and accessibility and intended to portray fundamental changes in the economy of Saudi Arabia. The circle shape – a principle of Islamic architecture and craft – inspires both concepts. The geometry and forms of each scheme respond to the region’s hot sun and prevailing winds.

The design for the slender Elliptical Tower creates a double-skinned building with a diagrid exoskeleton and a unique lightweight structure. The tower’s character is defined by a double-skin system that reduces solar gain and creates a sense of balance and transparency within. The internal space also functions as a chimney, pulling the enclosure, drawing air through the facade and washing the skin with convective cooling.

The second tower design, the Hypershape Tower, develops an external structure as a set of hyperbolic surfaces formed to reduce structural weight. A long span from the core to the external skeleton offers space for occupants. Once again drawing upon the circle, which is resolved as a faceted plan and three-dimensional form, the strong, efficient and economical surfaces define an iconic landmark at the terminus of the urban plan.
The design for the proposed 37-story Samba Bank headquarters creates a gently rotating, crystalline mass rising from the financial plaza in Riyadh’s new King Abdullah Financial District.

Samba Tower’s form is shaped for accessibility and transparency, recalling the symbolic form of Saudi desert crystals. The generally square plan is made up of two individual triangular masses rotating gently around a central garden atrium.

The tower’s garden atrium, or “vertical wadi,” is an extension of the wall concept expressed in the financial plaza. Hanging gardens within the atrium flow between floors, creating vertical connections while inviting the landscape into the heart of the building. The atrium and core create a social center for floors connecting people, floors and departments. Lounges, stairs and elevator lobbies encourage interaction.

In addition to providing access to nature, the large vertical garden ventilates the tower by acting as a thermal flue that draws the cool desert air through the structure during non-summer nights.

The tower plan organizes each individual building orientation to support the urban setting, including the tower’s position on the plaza, relationship to adjacent streets and views to the city center. This responds to each unique solar orientation, defining the core strategy for load reduction and energy efficiency.

The energy-efficient design includes monumental screens protecting the tower’s east and west facades. These screens filter intense sunlight from a traditional tower façade and preserving views to the financial district and urban landscape. The tower form and finely tuned facade balancing respect for Riyadh’s grid and climate and define a culturally relevant icon representing a powerful new presence for Samba Bank.

Samba Bank
Riyadh, Saudi Arabia

5 million sq. ft. / 98,300 sq. m.
Height: 540 feet / 165 meters
37 stories
Competition: 2009
▲ site plan

▲ level 2 floor plan:
1. atrium
2. branch bank offices
3. café seating
4. conference
5. prefunction
6. sky bridge

▲ level 11 floor plan:
1. atrium
2. open office
3. enclosed office
4. conference
Located on the Samsung Research and Development campus, this facility responds to the technology company’s business strategy and vision for the evolution of its products.

To accommodate Samsung’s program and space requirements, the building is 60 stories tall, with one semi-below-grade level featuring a sunken courtyard.

Above the below-grade levels, a six-level podium houses special labs, a multi-purpose auditorium, special function spaces, and employee welfare and support functions. A 32-story office tower – plus mechanical penthouse levels – rises above the podium. The office lower floors are designed with four parallel cores to accommodate a variety of office and lab layouts.

Glass curtain walls provide controlled natural light to specific areas of the podium, while modular metal panels cover other areas. The adjacent sunken courtyard and special labs wing provide a secure, pleasant outdoor space for people visiting the lower level dining hall. The special labs wing features a sloping glass facade to soften the podium building mass and bring sunlight into the sunken court.

Four below-grade parking levels accommodate 1,800 vehicles.

2.3 million sq. ft / 216,300 sq. m.
Height: 450 feet / 137 meters
Completion: 2005

Samsung Research and Development Facility 4
Suwon, South Korea
The five-star Sheraton Incheon Hotel is in the heart of the New Songdo City business node. As the first LEED-certified hotel in South Korea, it plays an important role in characterizing the urban landscape of this growing city.

Located in Block B36 on the south side of the city’s Central Park, the 25-story hotel includes 23 occupied floors with 319 premium guest rooms. Hotel amenities, including two ballrooms, a spa, gym facilities, a covered swimming pool, two restaurants and a lounge bar, are on the lower levels.

The design of the guestroom tower facades is divided into four-story tall, two-room-wide modules that are angled away from direct solar exposure. Each module is shaded by two four-story tall perforated aluminum sunshades. The lower amenity wing is wrapped in a reflective metal roof that shades portions of the glazed facades below.

The property is part of a group of buildings that includes the Sheraton Incheon Hotel, the Songdo Convention Center, the Northeast Asia Trade Tower and a retail mall.
SHERATON INCHEON HOTEL IN NEW SONGDO CITY

1    lobby
2    foyer
3    ballroom
4    pool
5    terrace

▲ north elevation
▲ south elevation
▲ east elevation
▲ west elevation

▲ section
▲ section
▲ section
▲ enlarged section
▲ model

1010x303
1010x293
1010x283
1010x273
SHERATON INCHEON HOTEL IN NEW SONGDO CITY

▲ view from road
Located in the emerging Suzhou Industrial Park central business district, the team designed this mixed-use complex to house retail space, offices and serviced apartments. As the new center’s hub, a podium links the subway, terraced green space and retail spaces into a carefully integrated whole. The contemporary glass tower that rises out of the terraced landscape is designed as a finely detailed structure that blends sustainability with natural and cultural references. Composed of a series of folded glass planes, the facade wall offers the perimeter offices and residences maximum daylight while reflecting unwanted direct sunlight.

**Suzhou SIP Tower**

**Suzhou, China**

2.3 million sq. ft. / 214,000 sq. m.  
Height: 1,076 feet / 328 meters  
78 stories  
Design completion: 2008  

- Street view rendering
SUZHOU SIP TOWER

1. office lobby
2. apartment lobby
3. retail
4. atrium
5. sunken plaza

podium site plan

office floor plan

apartment floor plan
Facade Module

Facade Detail

Facade rendering
The region’s tallest tower celebrates Sacramento’s style with grace, dignity and simplicity. The clear, distinctive architectural vision creates a tower that integrates energy efficiency and sustainability.

Unlike many of the older buildings on Capitol Mall, the US Bank Tower’s exterior is light and airy, allowing a glimpse of the activities taking place within.

The soaring south facade is illuminated at night, while double-pane windows welcome natural light into the building. Rooftop photovoltaic panels generate electricity.

At street level, a linear park connects the Capitol Mall with the Street. Pedestrians are walking along the park as the mall’s entire length and enjoy striking views of the California State Capitol. The park’s landscaping and retail destinations define scale, create pedestrian activity and establish a sense of community through the coffee shops, restaurant, cafe and banking facilities.

US Bank Tower at 621 Capitol Mall
Sacramento, California, USA

680,000 sq. ft. / 63,200 sq. m.
Height: 404 feet / 123 meters
25 stories
Completion: 2008
US BANK TOWER AT 621 CAPITOL MALL

site plan
1. lobby
2. retail
3. loading dock
4. parking access
5. public parking

section

model photographs

typical office floor plan
Rising above the vibrant Canary Wharf district, this glass-and-aluminum-clad tower provides a striking example of the possibilities of high-rise living in London.

One West India Quay is the first UK building to combine high-rise luxury apartments with a major hotel and serviced apartments. The project completes the regeneration and redevelopment of West India Quay as a residential and leisure complex.

This building contrasts with the postmodern blocks constructed in the early days of Canary Wharf. The tower complements its Canary Wharf neighbors, while the red terra-cotta podium respects the nearby listed Victorian warehouse buildings converted for residential use. The glass tower’s long, sweeping curve recalls its waterfront location.

With its complex, yet efficient, floor plans and generous amenities, One West India Quay resembles a “vertical city.” The first 12 floors of the tower house a 300-key Marriott hotel with 154 apartments and six penthouses. The hotel’s restaurants, bars, banquet and public space are in a lower podium block. The residential tower accommodates more than 20 types of units, including duplex penthouses with exterior gardens, and double-height living areas with balconies in the building’s “prow.”

Employing a system widely used in the United States and Far East, One West India Quay is one of the first post-tensioned, concrete-framed towers in London. This method reduced construction time by approximately 30 percent. The concrete floor slabs provide generous internal floors to saving heights while reducing the tower’s overall height.

West India Quay Tower
London, UK

- Harbor view

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As a centerpiece for the city of Wuhan, this striking, 119-story tower is envisioned as an icon for sustainable business and a benchmark for healthy, productive work environments. Reflecting the complexity of contemporary Chinese culture, the design balances traditional and modern elements to embody elegance, efficiency and innovation.

In its simplest expression, the building is a solid geometric structure with square corners and vertical faces. The lower form is shaped by optimized performance and provides multiple opportunities to create corner offices, apartments and hotel suites.

Behind the building’s curtain wall, a vertical series of structural glass fins supports the facade system and adds a colorful pattern to the building. The emphasis on responsible development included a careful study of how to minimize the project’s environmental impact. A thoughtful integration of technology reinforces this efficiency and connection to nature. From the optimization of energy use to the reuse of resources, the building was designed to minimize consumption and reduce operating costs.

The site emphasizes views of the Yangtze River and provides pedestrian access to the nearby retail district.
The design for the Xiamen International Centre transforms a prominent site in the island’s historic and cultural district into a showcase for Xiamen’s unique character. As a landmark at the heart of the city’s emerging financial district, the building symbolizes a new gateway to Xiamen that demonstrates the region’s economic vitality and strong destination appeal.

Through innovative site planning, sustainability strategies and elegant 21st-century architectural expression, the design defines a new experience of Xiamen that is vibrant at street level and far-reaching as a beacon within its urban and natural settings.

Composed of two dynamic towers and a commercial podium, the design is organized to promote activity and dynamic user experiences within its high-density urban area. The design transforms a former post office on the site into retail space that blends into the development. The towers are positioned above the retail and entertainment podium, commanding a place at the center of Xiamen’s emerging skyline. As the taller, predominantly rectilinear tower tapers inward, a dramatic and highly transparent experience of the city unfolds at the observation deck level.

Located on the eastern coast of Xiamen, the tower looks across the expanse of the Taiwan Strait toward Taiwan and a small neighboring island. The tower form gently lifts the shape of a floating lantern set high above the city, providing an iconic focal point for Xiamen.

3.45 million sq. ft. / 320,900 sq. m.
Tower 1:
Height: 1,100 feet / 330 meters
72 stories
Tower 2:
Height: 656 feet / 200 meters
48 stories
Competition: 2011

Xiamen International Centre
Xiamen, China

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Xiamen International Centre
Xiamen, China
Tall buildings of the future need to be highly efficient in how they use materials and energy. With every project, we work to optimize building facades, systems and performance to create greener, smarter, more economical high-rises. These tall buildings can shrink a city’s environmental footprint while still helping to define its identity and promoting economic growth. The following projects demonstrate HOK’s commitment to exploring the limits and possibilities of tall building design.
STUDIES OF FUNCTION + FORM
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turkey mixed-use tower

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