



Putrajaya Convention Centre

Putrajaya, Malaysia



Architect: Hijjas Kasturi Associates / Amir Hamzah

Client: Jabatan Perdana Menteri

Built Area: 135'000 m²

Cost: US\$ 175'768'800

The convention centre is a focal point of Malaysia's new administrative capital. Its seven levels provide a plenary hall for 3'000, a banqueting hall for 3'500 and two large conference halls (capacity 2'000), as well as mini halls, meeting rooms, suites, galleries and supporting services - yet its footprint occupies only three acres of its 51-acre site, leaving the remainder for use as a public park. To achieve this, more than 60 per cent of the spaces are submerged below ground. The glazed walls of the above-ground structure are sloped and louvered to prevent direct solar gain; the membrane roof is made of Sanarfil.

Putrajaya Convention Centre

Putrajaya, Malaysia

Architects Hijjas Kasturi Associates / Amir Hamzah
Kuala Lumpur, Malaysia

Clients Jabatan Perdana Menteri
Putrajaya, Malaysia

Commission 2000

Design 2001 - 2001

Construction 2001 - 2003

Occupancy 2003

Site 194'262 m²

Ground Floor 8'500 m²

Total Floor 135'000 m²

Costs US\$ 175'768'800

Programme The convention centre is a focal point of Malaysia's new administrative capital. Its seven levels provide a plenary hall for 3'000, a banqueting hall for 3'500 and two large conference halls (capacity 2'000), as well as mini halls, meeting rooms, suites, galleries and supporting services - yet its footprint occupies only three acres of its 51-acre site, leaving the remainder for use as a public park. To achieve this, more than 60 per cent of the spaces are submerged below ground. The glazed walls of the above-ground structure are sloped and louvered to prevent direct solar gain; the membrane roof is made of Sanarfil.

PUTRAJAYA CONVENTION CENTRE



THE CULTURAL SIGNIFICANCE AND IMPACT

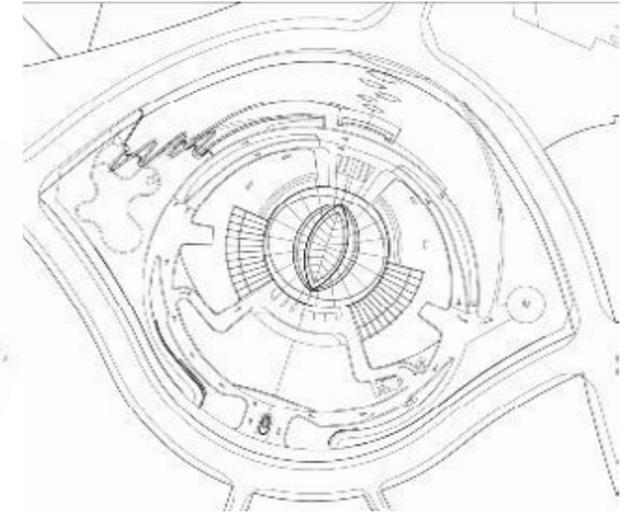
The vision for the Putrajaya International Convention Centre was conceived by the Prime Minister of Malaysia to be a world class government-to-government conference facility. It was designed to host the 10th OIC summit for which the Prime Minister of Malaysia was then chairman. Its location within the new capital of Malaysia, Putrajaya, is symbolic of a growing and successful modern Islamic nation. The development thus is significant at both National and International levels. Tun Mahathir Mohammad marked his retirement on the completion of this building and at the opening of the summit.

The circular conceptual form was chosen for the integration into the site, perched on one of the highest points of Putrajaya. The circle as a shape is the strongest form of symbolic unity. The site resembles a rounded diamond likened to a Pending Perak, the traditional Malay warrior belt buckle. There is a Malay saying.....*di mana di bahagian tengahnya terdapat bulatan yang menjadi pusat atau biji mata pending itu ada kalanya bertatahkan permata menghasilkan dimensi bentuk.....where the center is raised, forming a dimensional jewel.*

The major design constraint was to consolidate the complex spatial requirements for the building into a single simple structure. Approximately sixty percent of the building is submerged into the hill slope as a move to preserve the hill. Previously plantation land, turfed landscaping covers the major conference halls and main delegates circulation at these lower ground levels. A sunken courtyard brings light to the delegates galleries below ground, giving an impression of being surrounded by gardens.



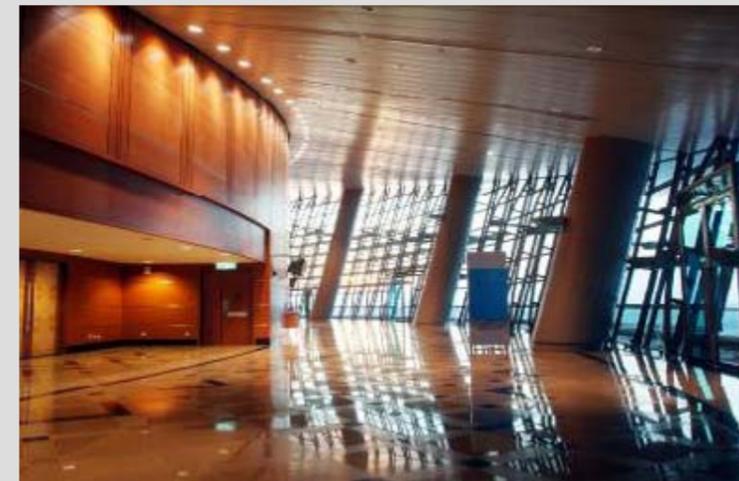
The Pending Perak...inspirational to the form and place setting



Park site with building on summit of hill

The multiple halls, meeting rooms, banquet hall and plenary hall allow the flexibility to stage different events simultaneously. Large galleries and foyer spaces must be provided to cope with any eventuality. Utmost in mind is to maintain flexibility and ensure that all facilities have multiple applications. Some of the facilities within the center include the most up to date technical installations and fibre optic communications systems, linkups, data transmission and reception, simultaneous interpreting into eight languages to all major halls and meeting rooms, satellite video-conferencing, broadcasting and television studio facilities, a data centre and the latest audio visual equipment.

The delegates gallery with natural daylight and panoramic views



Banquet Hall with special F1 columns to support the 70 meter Plenary Hall above





Composite steel and concrete construction



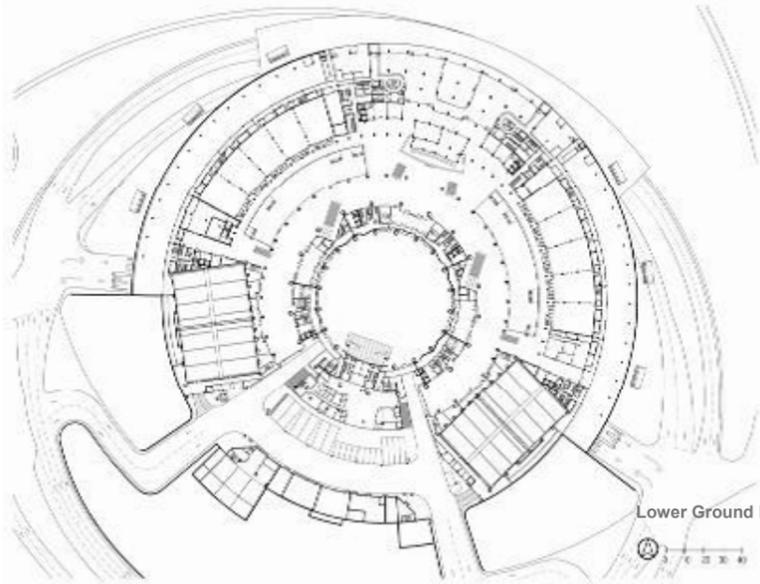
Future Aerial of the city of Putrajaya

Its location atop the commanding hill at the culmination of the 4.2km axis - running from the Perdana Putra Building which houses the Prime Minister's Office, to Dataran Putra, along the main boulevard and major public squares and across Gemilang Bridge over the lake - provides an impressive setting for the Putrajaya Convention Centre

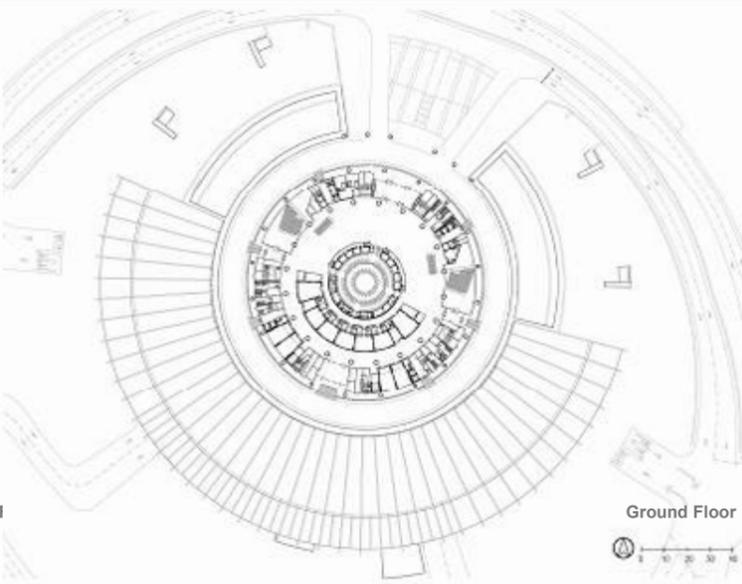
Being situated in Putrajaya, the Government Administrative Centre, This landmark project stands as a symbolic venue for national and international events and places Malaysia prominently on the global map as a leading convention and exhibition centre.



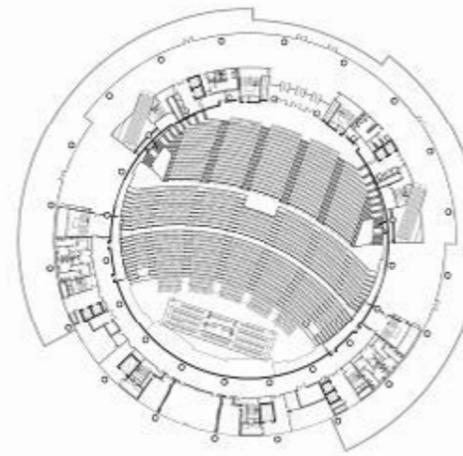
NIGHT VIEW OF CONVENTION CENTRE



Lower Ground I



Ground Floor



Third Floor

Generous natural daylight illuminate public galleries through the raked and louvred building facade all around. The 15 degree raked angle of the glass facade contrasts and highlights the slopes of the site, the same as the roof contrasts and highlights the crest of the hill.

The form of the roof is a unique combination of enclosed protection and soaring flight. From the front, its eaves, or wings, are lifted at the sides creating broad overhangs over raking glass facades. From the side elevations the effect is quite different: the roof is anchored at the front and back, creating a curved arc that encloses the entire building under a protective sweep. Ready to take flight, the broad roof arcs over the public circulation areas around the building and come together at the centre in angled pleats as a fitting apex to the boulevard axis.

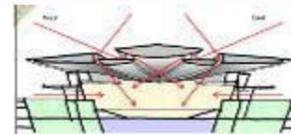
THE SPATIAL ORGANISATION The Convention Centre takes its shape from the circular 'eye' of the Pending Perak. The Main Halls - the 3,000 capacity Plenary Hall, the 3,500 capacity Banquet Hall and the Head of States Hall - are set within the 'eye', while radiating outwards are the series of meeting rooms, suites, galleries and lounges. The complexity structurally was in the clear span spaces of the Plenary Hall of 70 meters.

Interiors taken inspiration with either islamic motif in mind or malay weaving and inspired forms. Local timber adorned the walls, Hand made carpets to the floors. Saudi granite was chosen specifically in support of islamic nation.

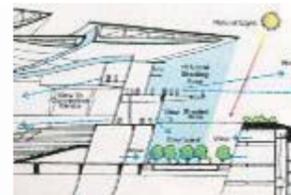
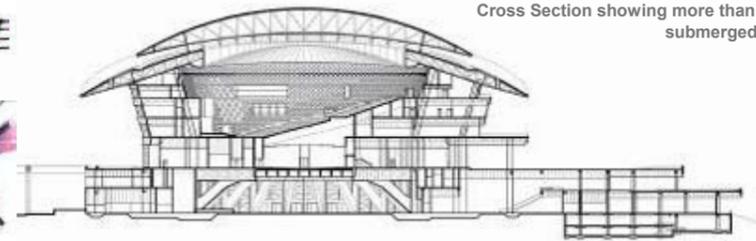
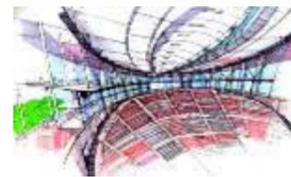
The Plenary Hall

The Head of States Hall

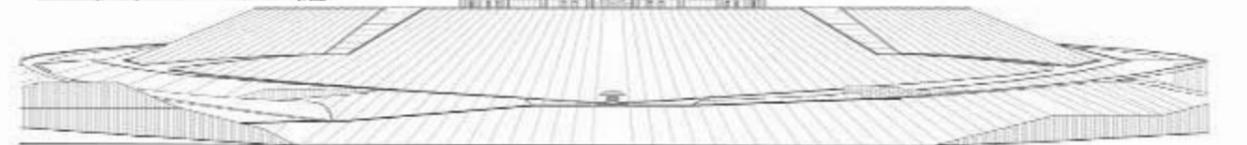
Sunken Courtyard



Cross Section showing more than half the building submerged into the ground



Principle elevation on Puncak Selatan Hill Viewed from main boulevard





Aga Khan Award for Architecture

ARCHITECT'S RECORD

2007 AWARD CYCLE

I. IDENTIFICATION

Project Title Putrajaya International Convention Centre
 Street Address Presint 5, Pusat Pentadbiran Kerajaan Persekutuan Putrajaya, 62000 Putrajaya
 City Wilayah Persekutuan Putrajaya Country Malaysia

II. PERSONS RESPONSIBLE

A. Architect/Planner

Name Hijas Kasturi Associates Sdn
 Mailing Address 23rd Floor Menara Promet, Jalan Sultan Ismail
 City Kuala Lumpur Postal Code 50250
 Country Malaysia Telephone 603-2141 8840
 Facsimile 603-2148 0154 E-mail hkas@hijaskasturi.com
 Principal Designer Mr Amir Hamzah

B. Client

Name Jabatan Perdana Menteri
 Mailing Address Perdana Putra Building, Federal Government Administrative Centre
 City Wilayah Persekutuan Putrajaya Postal Code 62502
 Country Malaysia Telephone 603-8888 8000
 Facsimile 603-8888 3444 E-mail enquiry@pcc.gov.my

C. Project Affiliates / Consultants

Please list those involved in the project and indicate their roles and areas of responsibility (e.g. engineers, contractors, economists, master craftsmen, other architects, clients, etc.) Please cite addresses and telephone numbers separately.

Name	Role
<u>Putrajaya Holdings Sdn Bhd</u>	<u>Project Managers</u>
<u>Hijas Kasturi Associates Sdn</u>	<u>Architects & Interiors</u>
<u>UM Construction Sdn Bhd</u>	<u>Main Contractor</u>
<u>SKM Engineering Sdn Bhd; Perunding L&W Sdn Bhd</u>	<u>Civil & Structure Engineers</u>
<u>Perunding Kotrek</u>	<u>Mechanical & Electrical Engineer</u>
<u>Pakatan International</u>	<u>Quantity Surveyor</u>
<u>Perunding Arcareka Sdn Bhd</u>	<u>Earthwork</u>
<u>Shah PK Associates Sdn Bhd</u>	<u>Landscape Architect</u>
<u>Stephen Grubbs & Associates Sdn Bhd</u>	<u>Fire Safety Engineer</u>
<u>Perunding HTA Sdn Bhd</u>	<u>Acoustic Consultant</u>

III. TIMETABLE

(please specify year and month)

A Commission	10 October 2000		
B Design	Commencement	February 2001	Completion April 2001
C Construction	Commencement	18 June 2001	Completion 25 April 2003
D Occupancy	September 2003		

Remarks, if any:

IV. AREAS AND SURFACES

(please indicate in square metres)

A Total Site Area	48,003 acres or 194,262 m ²
B Ground Floor Area	8,500 m ²
C Total Combined Floor Area including basement(s), ground floor(s) and all upper floors)	135,000 m ²

Remarks, if any 2 Basement car parks, 2 Lower Ground buried into hill, Ground plus 4 levels.

V. ECONOMICS

(please specify the amounts in local currencies and provide the equivalents in US dollars. Specify the dates and the rates of exchange in US dollars at the time.)

	Amount in Local Currency	Amount in US dollars	Exchange Rate	Date
A Total Initial Budget	RM652,936,475	USD177,911,840	3.67	
B Cost of Land				
C Analysis of Actual Costs				
1 Infrastructure	} RM617,299,146	} USD168,201,401	} 3.67	
2 Labour				
3 Materials				
4 Landscaping	RM19,957,214	USD5,437,933	3.67	
5 Professional Fees	RM7,812,896	USD2,128,854	3.67	
6 Other	RM22,927,084	USD6,247,162	3.67	
D Total Actual Costs (without land)	RM645,069,256	USD175,768,800	3.67	
E Actual Cost (per sq meter)	RM4,672 per m ²	USD1,273	3.67	

Remarks, if any, on costs:

VI. PROJECT DESCRIPTION

- Location* The convention center's location is perhaps the best in the new administrative capital, sitting at the culmination of the main axis that runs from the Prime Minister's office to Taman Puncak Selatan hill. The site is steep ascending from 26 meters to 55 meters above sea level. The site is approximately 51 acres of which the building only takes up 3 acre foot print the rest being set as a public park. The major constraint is to consolidate the complex spatial requirements for the building into a single structure that would be architecturally significant and an appropriate termination for the formal boulevard axis
- Building submerged into hill slope* The building consists of 7 levels. Two lower ground floors, ground and four floors rising above. More than sixty percent of the building is submerged in the hill slopes, turfed over to conceal the Major halls and spaces of the lower ground floors. An external courtyard brings light down into these spaces giving natural daylight to the delegate's concourse which should be able to accommodate up to 6000 people at any one time. Two Major Conference/Exhibition halls of 2000 capacity, 15 mini Halls and various meeting rooms sit within these lower floors. This level is the main delegate's registration supported by restaurants and amenities, and services. Two basement car parking is designed on the outer circumference set away from the lower ground floors as a security measure (accommodating 1200 cars).
- Ground Level* What is visible of the building from the surrounding are the floors above ground. The Main Plenary hall and Heads of State Hall occupy these four floors. Designing the spatial separations for this government-to-government facility where the nature of security takes a high but invisible priority governed the intricacies of the planning. Again galleries for the delegates afford priority with natural daylight and panoramic across the city of Putrajaya.

VII. MATERIALS, STRUCTURE, AND CONSTRUCTION

- Construction* There were two major complexities to the form and structure of this convention center. The geometrically complex roof structure over the plenary hall and the 70 m column-free banquet hall. The time span of 24 months to design and build for the OIC Summit was also a major constructional challenge. Innovative designs were required to speed up the construction sequence.
- The roof* The biggest challenge was resolving the anti-clastic external profile to allow for the significant deflections under self-weight that varied around the structure, resulting in an uneven profile. The material chosen for the seamless roof was a membrane type material (Sanarfil) that would be able to stretch over the 3-dimensional roof form. A clerestory between roofs was created to bring in some light from above
- Structure* The primary focus was then on the main truss that was to span 90 m across the Plenary Hall. 80 radial sections each containing a complex truss system made of steel was brought up to carry the load. Combination of composite columns, steel truss and concrete floors and raft foundation was employed for the project
- Building Skin* Glazed walls around the building with double glazing system for acoustic insulation wrapped around the upper galleries. Sloped at 15 degrees and louvered to prevent direct solar gains. Solar modeling was performed to analyse the levels of direct solar gain into the building for energy optimization.
- Interiors* Internally the building used local materials and locally manufactured finishes which custom designed for the convention center. An exception was the stone flooring which Saudi granite was used for the particular hardness of the material.

VIII. PROJECT SIGNIFICANCE AND IMPACT

- Vision** The vision for the Putrajaya Convention Centre was conceived by the Prime Minister of Malaysia to be a world class government-to-government conference facility. It was conceived to host the 10th Conference of the OIC Summit for which the Prime Minister Tun Mahathir Mohamad was then chairman. It is significant at an international level for this purpose and at a national level it marks the culmination point for Putrajaya City, the newly capital city of Malaysia. Putrajaya City, along with the Petronas Twin Towers and Kuala Lumpur International Airport are all nationally significant projects in putting Malaysia forward as a developed nation and as a symbol of a growing and successful modern Islamic Nation.
- Global Level** It was at this Convention Centre that Tun Mahathir gave his inspiring speech to the 57 member Islamic community representing more than a billion Muslims worldwide and the first meeting of the OIC since the 11 September attaches on America, and the US-led war on terrorism was a dominating agenda. The OIC Summit themed "knowledge and Morality for the Progress of Ummah" and attended by Islamic leaders held at a time when Islamic would faces challenges of terrorism, extremism, globalization as well as deformation of Islam's and Muslims. The building was a platform and continues to be the first government-to government purpose built facility. Studies from the UN model in Geneva, Taif, Korea and European cities were required prior to establishing and forming the brief for this building.
- National Level** When the project was under construction, Tun Mahathir had announced that he would retire and handover as head of government to Dato' Seri Abdullah Ahmad Badawi as prime minister once the building was completed for the OIC Summit.
- The vision of Putrajaya as a modern Islamic city was paramount in the vision 2020 of the nation. The PICC or Putrajaya International Convention Center was amongst the projects completed in the city to achieve this vision. The Putra Jaya International Convention Centre was conceived as the ultimate jewel within the context of the entire new city development.

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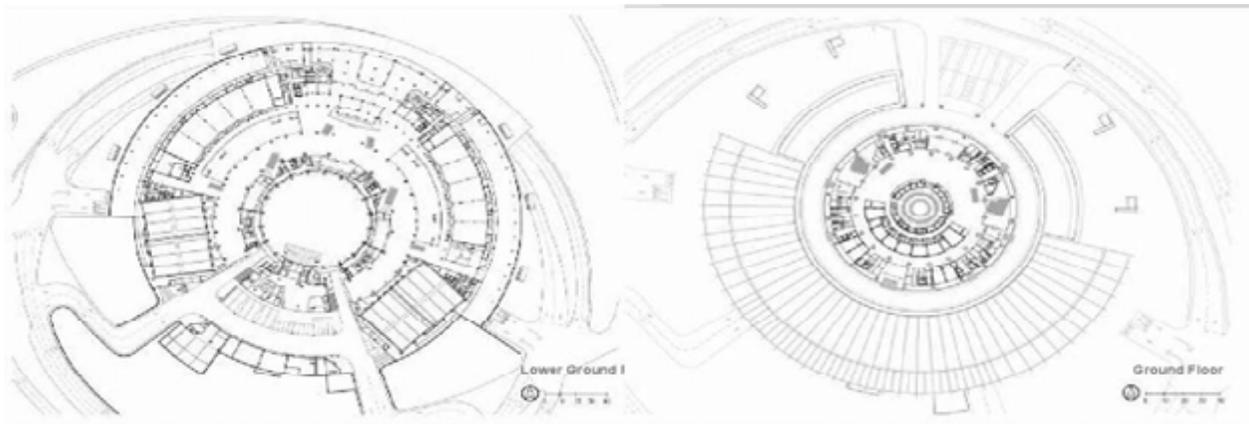
Name (please print)

SERINA HIJJAS

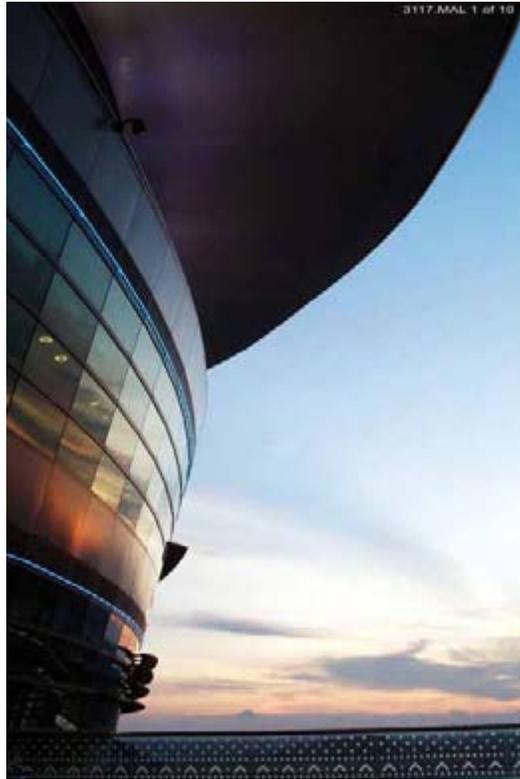
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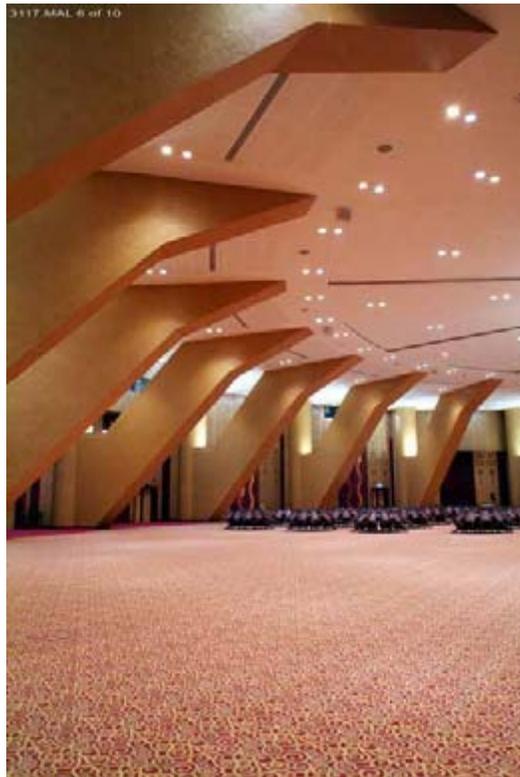
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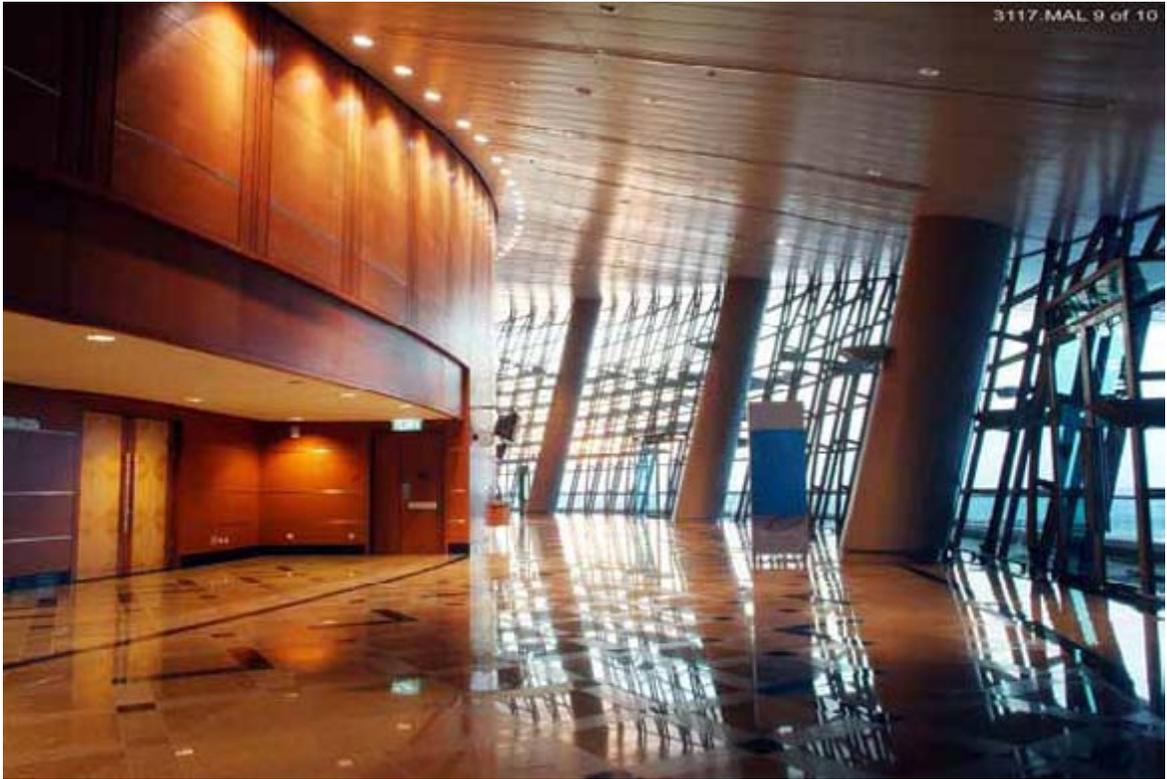
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MATERIALS IDENTIFICATION FORM

Provide a full list of all material being submitted

No	Description	Remarks
1	Completed & Signed Architect's Record (Four Pages)	
2	Completed Image Identification Form	
3	Two Main A3 Presentation Panels	
4	1 CD Containing Photos & Drawings (JPEG) - Hard Copy Attached	
5	Putrajaya Convention Centre First Conceptual Masterplan	
6	Putrajaya Convention Centre Structural Presentation Report	
7	1 CD Containg First Conceptual Masterplan & Structural Presentation Report	
8	Commorative Brochure for the Opening of the OIC.	
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IMAGE IDENTIFICATION FORM

List each digital image (or photograph or slide) below, and specify the name of the photographer and the date of photography. In the space designated "Description", provide a description of the image in English or in French. Also specify any copyright restrictions, if any. You may substitute this form with your own as long as the required information is included.

No	Description	Photographer	Date
1	1 of 10 - Part of West Elevation		
2	2 of 10 - Night View: Front Elevation Facing The Boulevard		
3	3 of 10 - Head of State Hall		
4	4 of 10 - The Chandelier at Head of State Hall		
5	5 of 10 - A view of one of the two Exhibition Hall		
6	6 of 10 - Banquet Hall with 2500 capacity and 75m diameters column free area		
7	7 of 10 - The Plenary Hall with 3000 capacity		
8	8 of 10 - The Chandelier at Plenary Hall		
9	9 of 10 - The Gallery: The main circulation of the building		
10	10 of 10 - Internal Courtyard on East and West Wings provide natural lights to floors below Ground		
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