



ESTD. : 1947
THE GUJARAT
INSTITUTE OF
CIVIL ENGINEERS &
ARCHITECTS

GICEA

GICEA LIBRARY

Vol. No. 75 | No.1 (2008-09) | August - 2008

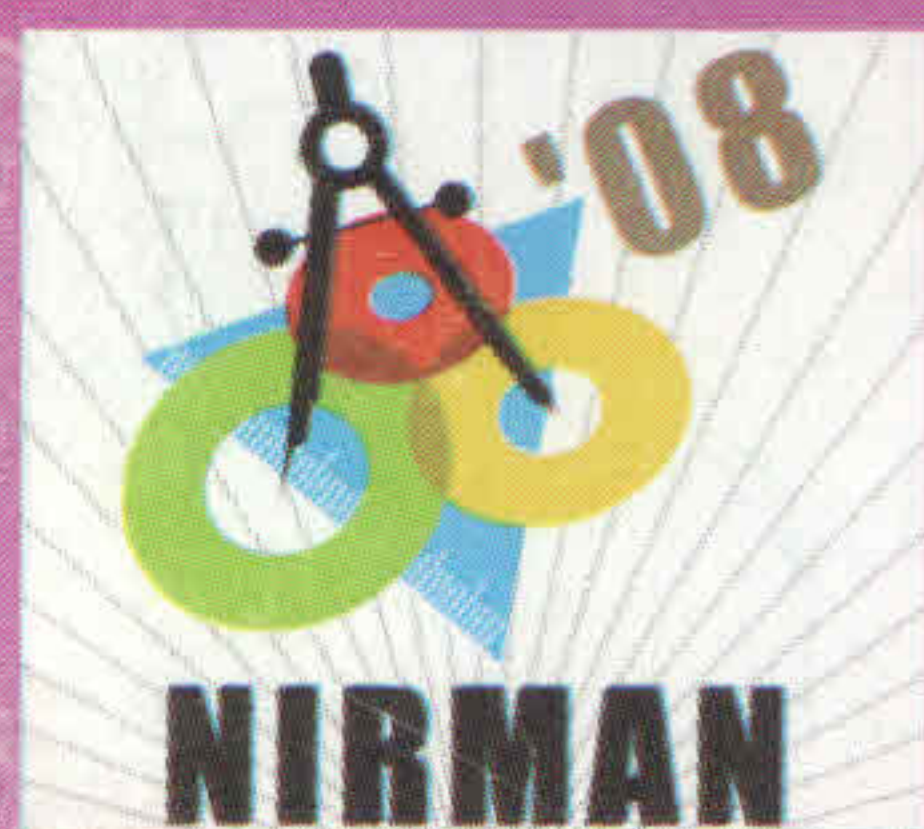
N | E | W | S

REAL ESTATE - BOOM OR BUBBLE
READY RECKNOR TO PROPERTY INDEX
OLYMPIC STADIUM - BEIJING

**HORNS REV
THE LARGEST
WIND FARM**

MILE HIGH TOWER

**ENGINEERING MARVELS
OF 21st CENTURY**



20th to 24th November, 2008
**GUJARAT'S LARGEST
BUILDING MATERIAL EXHIBITION**
BOOK YOUR STALL NOW...

23rd
EXHIBITION

Inaugural ceremony followed by entertainment programme | Opening of the gallery depicting "Ahmedabad's Growth"
Designing competition | Participation by reputed designing institutes | Valedictory function followed by felicitation | Grand dinner
VENUE : AES Ground, Near Helmet Cross Road, Navrangpura, Ahmedabad Contact No. : 09426010396, 09426349745, 09426349746

Get the glimpses of Gujarat's Growth Plan **NIRMAN '08**

Contents

GICEA NEWS



THE GUJARAT INSTITUTE OF CIVIL ENGINEERS & ARCHITECTS

Nirman Bhavan,
Opp. Law Garden Road,
Ellisbridge, Ahmedabad 380 006, Gujarat.
Ph.: 079 26565935 | telefax : 079 26430213
gicea2005india@yahoo.co.in,
contact@gicea.com
www.gicea.com

PRESIDENT'S MESSAGE

03

BOOK REVIEW — PROPERTY MATTERS MADE EASY

04

GLIMPSES OF GICEA EVENTS

05

STAMP DUTY - ANNUAL STATEMENT OF RATES (ASR 2006)

08

REAL ESTATE - BOOM OR BUBBLE

14

HORNS REV — WORLD'S LARGEST OFFSHORE WIND FARM

16

MAGDEBURG WATER BRIDGE — AN ENGINEERING MARVEL

19

OLYMPIC STADIUM - THE BIRD'S NEST

21

MILE HIGH TOWER — TALLEST DREAM OF DUBAI

23

TURTLE CREEK — FIRST CASINO TO BE TITLED "GREEN"

27

AUTOCAD — HOW PRODUCTIVE ARE WE?

29

GICEA - TEAM

Office Bearers 2008-2009

Bharat Modi
President - 98250 66063

Bharat Patel
Immd. Past President - 98256 09011

Prashant J. Shah
Vice President - 99798 55701

Vatsal S. Patel
Vice President - 98250 63115

Mukesh N. Majeethia
Hon.Secretary - 94260 64416

Ramesh Anadkat
Hon.Jt.Secretary - 98256 11775

Bakul N. Desai
Hon.Treasurer - 98257 79394

Haresh S. Parikh
Hon.Jt.Treasurer - 94260 07134

NEWSLETTER COMMITTEE

Bansri Gandhi
Chairman - 9825198647

Jigar V. Pandya
Co-Chairman - 98243 52077

Mehul H. Bhatt
Convener - 98250 22867

Chirag M. Patel
Co-Ordinator - 93777 51236

Your comments & suggestions are welcome.
For any more queries & comments about the
articles, please contact GICEA newsletter
committee

President's Message

GICEA LIBRARY



Dear Member,

At the outset I wish to thank you all for electing me as the President of our prestigious and beloved institute in the year 2008. I consider it as a great honor for myself that you have entrusted me and my entire team with the task of working from the front, on behalf of our more than 3500 members of the institute. It is indeed a daunting and difficult task. But from the great response and support, I have received from the senior and young members of our esteemed institute, till now I feel confident that my efficient and hard working team will be able to fulfill the expectations of everyone and we shall surely achieve our goals.

During last three months, we have organized a series of programs related to Technical Lectures/Seminars, Public Cause Program, Gold Medal Award Ceremony, Talent Evening, Gujarati Drama Special Program like Technical Seminar on Real Estate – Boom or Bubble, Cities Best Orator and Cities Best Singer with Divya Bhaskar etc. which has proved that joint efforts, solidarity and sense of fraternity can do wonders and make events successful and most gratifying.

Our Practicing Professional Committee is doing an excellent job by taking up issues related to our fraternity with concerned authorities. Due to their efforts Ahmedabad Municipal Corporation has approved to continue the old proposal for 30% parking as per GDCR and discussions held with authorities in the matter of engineers license is still at a dynamic stage and we are hopeful of amicable solution to this issue.

We also made suggestions and presentations to concerned authorities regarding New Jantri, Engineers Bill, Township Policy, etc. At this juncture, I am pleased to congratulate our beloved Chief Minister Respected Shri Narendrabhai Modi, Revenue Minister Smt. Anandiben Patel and Urban Development Minister Shri Nitinbhai Patel for their bold decisions on (1) Simplifying of Township Policy, (2) Simplification of Construction Rules, (3) Practical implication of Jantri, (4) Simplification of N.A. (5) Permission for allowing Restart of Construction in old Greenbelt. This will galvanize the construction activities and will open the Growth Gates for the development of a new and brighter Gujarat.

'I wish to assure that our aim this year is mainly to create a better bond of brotherhood and solidarity among the members by creating a brand image of the institute as the premier institute of Gujarat.'

We will also strive for technical knowledge upliftment of our members which is our main and eternal motto. I on behalf of my entire team appeal to you to extend your support, guidance and presence to achieve this goal. We expect the most prompt and positive response from your side.

Thanks.

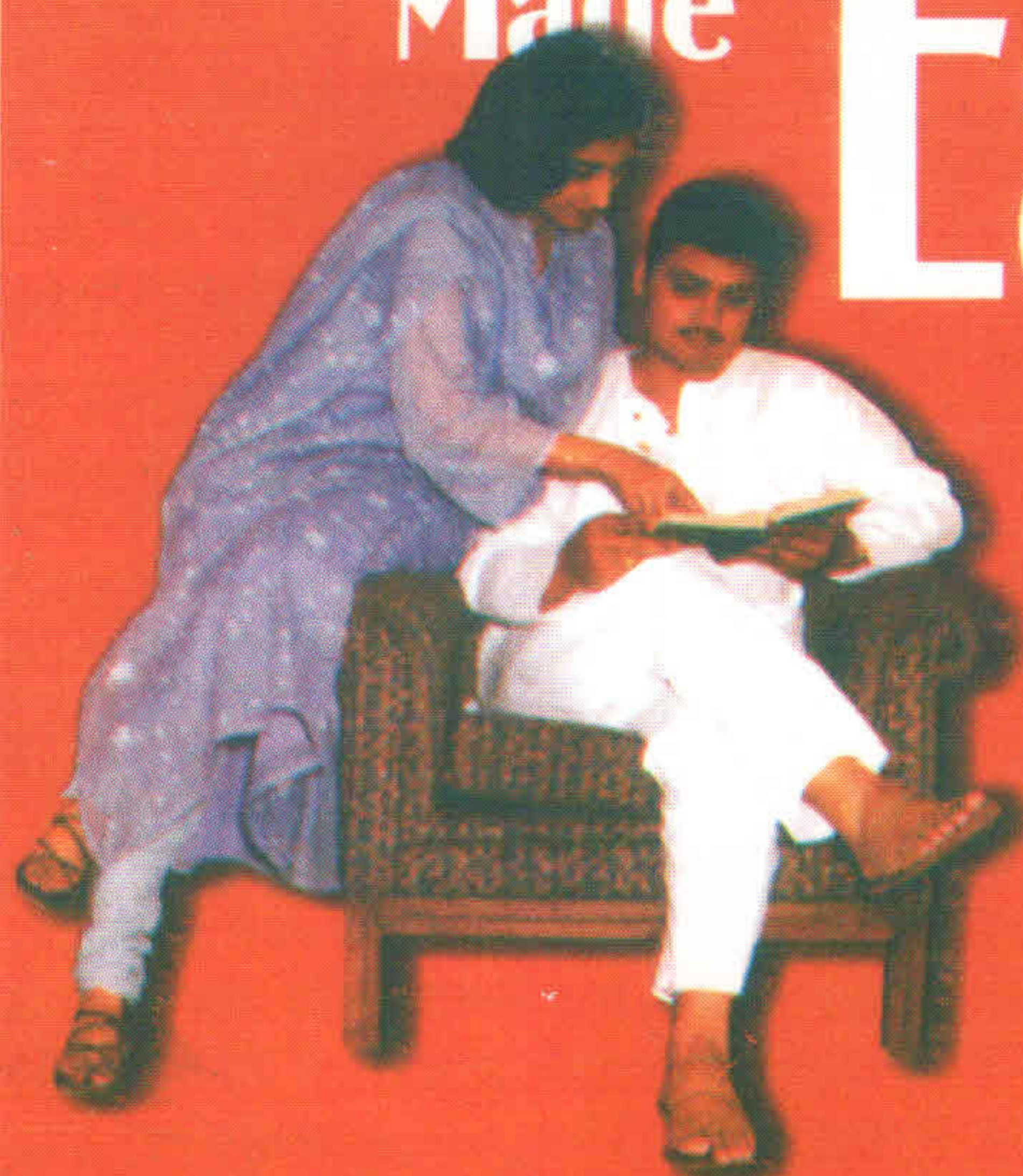
Bharat Modi
President
GICEA



Property Matters Made Easy

Everything you want
to know about
Buying, Selling,
Renting and
Leasing out your home

Property Matters Made Easy



Brought to you by: Indiaproperties Institute Of Real Estate

“Must read for buyers, sellers, real estate agents, tenants, landlords and whoever is concerned and connected with real estate industry.”

Fortunately, help is at hand now!

Buying, Selling, Leasing Properties are the most important decisions we make in life.

Yet, it is amazing how little we know about this subject which affects our life, so deeply.

While there are plenty of articles, published everyday under “HOW-TO columns” in real estate, a great vacuum has been observed. This book fills the vacuum and offers comprehensive guidance to common men.

What makes the book a compulsory buy is that it has simple and easy to understand language which is spiced with humor.

With this book, in a short period of time, anyone can understand procedures, terminology, legal aspects of the trade. This book will step by step answer some of the most common questions one has to deal with when buying, selling or financing real estate.

To know more about the book OR for any purchase related query, contact GICEA newsletter committee

Glimpses of GICEA Events 2008



Honorable Minister Smt. Anandiben Patel lighting the lamp at Seminar



President welcomes delegates at seminar Gujarat's Growth Engine



Honorable Minister Shri Jaynarayan Vyas Inaugurating Exhibition 'Heritage Photograph of Landmarks of New York City'



Seminar on Quality Issues in Ready Mix Concrete



Shri Swami Adhyatmanandji blesses participants at final competition 'Best Orator of the City'



Shri Anil Bakari, Shri Bharat Modi, Shri N. K. Patel, at Meet & Greet



Seminar on Sustainable Building Design & Technology with CII



Incoming & Outgoing Team - GICEA at AGM



Incoming & Outgoing Team - SSS at AGM

2008 Glimpses Of GICEA Events 2008



Gold Medal Ceremony - Office Bearers with Prof. P. I. Patel



Memento to Shri Daniel Cicek - American Deputy Council (Mumbai) by Shri Bharat Patel - Immd. Past President - GICEA



Mahendrabhai (Divya Bhaskar) at Health Checkup Programme with Gold Shield

Doctors of Gold Shield with our team at Health Checkup





Shri Lalitkumar Jain, Shri Bharat Modi, Shri Irfan Razack, - Real Estate Boom or Bubble



Summer Camp - Participants



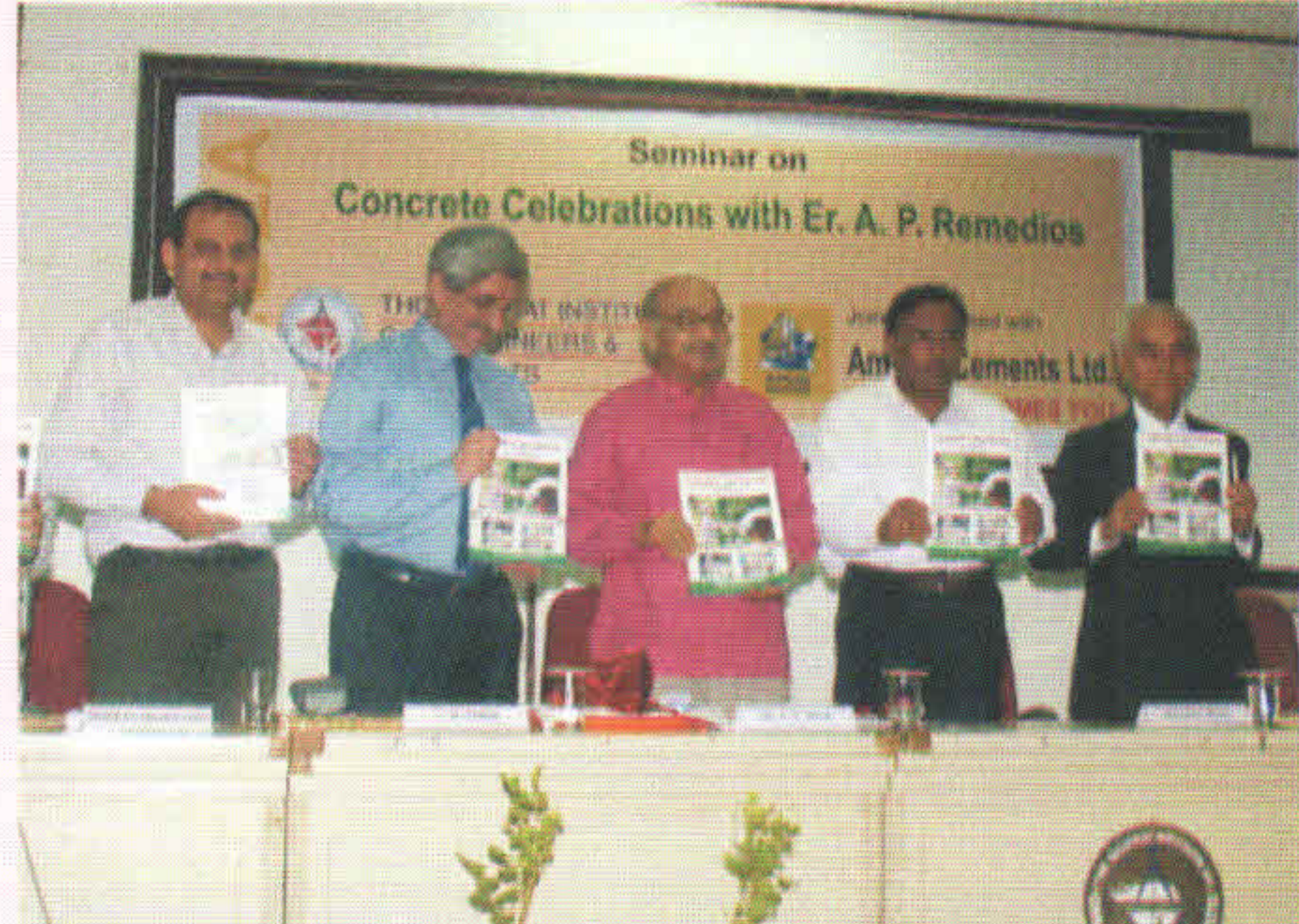
ER. A. P. Remedios cutting of Cake at Concrete Celebrations with Er. A. P. Remedios



Shri N. K. Patel- Speaker-Real Estate Boom or Bubble



Audience - Real Estate Boom or Bubble



Release of Hand Book on Concrete at Concrete Celebrations with Er. A. P. Remedios



Shri Swami Adhyatmanandji with Office Bearers at 'Best Orator of the City'



Gold Medal Ceremony - Bharat Modi welcomes Prof. P. I. Patel



Past Presidents at Meet & Greet



SSS Programme - Samarpan Dhyan with Samarpan Academy



Students at seminar on prospects after Std.XII



Dhoom Machade Rang Jamade - Patriot Song by members' children

Narrated by Mr. Ketan Brahmbhatt, Real Estate Valuer

Annual Statement of Rates (ASR 2006)

What is ASR (Jantry) ?

Jantry OR ASR is a statement of guideline rates (i.e. market rates as per state government) for immovable properties (i.e. land & building), published by state government for the purpose of calculation of Registration Fees & Stamp Duty to be paid or Stamp to be used/ affixed at the time of execution and/or registration of a deed or a document executed between parties and intended for sale and/or transfer of one or more such properties.

ASR comprises of statement of rates along with guidelines for its implementation & Input Form.

History of Jantry

With the introduction of the provision under section 32(A) of the Bombay Stamp Act, 1958, which provides that Stamp Duty shall be recovered at the time of registration of the document of transfer and/or sale of properties on the basis of market value, and to that effect the first ASR (Jantry) was prepared by Government of Gujarat in the year 1984 which came into force by 1992 with required modifications.

The last ASR (Jantri) was prepared during the year 1999. In February 2007 the State Government took a decision to increase the said Jantry by 50% flat and to be increased further by 5% every year.

In the year 2006, Superintendent of Stamps and Valuation Department, Gujarat State prepared a new Jantry which was made effective from 01-04-2008.

New ASR 2006

The draft jantry was introduced by the state government in February 2008 and put open for eliciting public opinion and inviting views/suggestions and objections up to 26th of March 2008. The state government received about 3500 objections/suggestions, among them GICEA had made very good suggestions and few of them were considered by the State Govt. and amended accordingly.

Method & Approach - Comparison between Old Jantry & New Jantry (ASR 2006)

(1) The old jantry was based on Land & Building method both for urban/town or rural area whereas, the ASR 2006 has adopted Composite Rate Method as well as Land & Building method both in case of urban/town area and only Land & Building method in case of rural area.

(2) For agriculture land, in old jantry the rates per hectare of land were based on the classification of land viz. uttam, madhyam & kanishtha with further classification viz. piyat or bin piyat, whereas, in new jantry a single rate per sq. mtr. of land is provided for any agriculture land falling within that particular village limits.

(3) For urban/town area, in the old jantry different rates for different Final plot numbers or City Survey numbers were provided, whereas, in the ASR 2006 zoning approach is adopted and a single rate for a particular type of property is provided for that type of property falling anywhere within that particular zone.

For example, as per new jantry, for a particular T.P. Scheme, the whole T.P.S. is divided into say 4 to 5 different zones, and any particular type of property say Flat/Apartment type of property, a single rate is provided for all Flat/Apartment type of properties falling within the particular zone of that T.P. Scheme.

Statement of Rates for Urban/Town Area

ASR 2006 statement of rates provide :

- i) Composite Rate i.e. single rate (land + construction) for Flat, Office and Shop type of properties,
- ii) Rate of Developed Land for residential Bungalow / Tenement / Rowhouse or Open Residential Plot type of properties,
- iii) Rate of Open Land for Agriculture Land & Industrial Land

Statement of Rates for Rural Area

ASR 2006 statement of rates provide :

- i) Single Rate of Open/Developed Land for Gamtal, Residential, Commercial, Agriculture & Industrial Land.

Guidelines for ASR 2006

(1) Definition of Types of Construction:

R.C.C frame structure : Building constructed on R.C.C, Columns, beams with Masonry plastered by cement mortar, flooring of Tiles, Kota stone, Mosaic or other materials with electrification, plumbing completed in all respects.

Load bearing structure : Building constructed on load-bearing structure with masonry, plastered on both side by cement mortar, flooring of appropriate materials with plumbing etc. completed with all respects.

Annual Statement of

Rates (ASR 2006)

Semi pukka structure : Building constructions on load bearing structure without R.C.C. slab but with masonry walls, plastered on both side, flooring, electricity, plumbing etc completed with all respects.

Large scale Industries (enclosed steel structure) : Factories building constructed with steel structure having built up area more than 500 sq mt.

Small scale Industries : Factories shed constructed with steel structure built up area less than 500 sq mt.

(2) Rates of Construction - [Year 2006]

(A) Schedule of rates (SOR) for construction:

Construction cost during 2006 for various structures	Cost per Sq.mt in Rs.	
	Urban Area	Rural Area
(i) RCC frame structure with finishing items (Pucca structures)	5000	4500
(ii) Load Bearing structure (Pucca structures)	4500	4000
(iii) Semi pucca structure	3000	3000
(iv) Large scale industries (enclosed steel structures)	4500	4500
(v) Small scale industries (sheds)	3000	3000

(B) Schedule of rates for incomplete structure:

Incomplete Structure

= 70% of the respective SOR as given in the above table.

(3) Rate of Depreciation on Old Buildings

Age of building in years	Rate of depreciation for R.C.C. Pukka Structure / Load bearing structure / Industries
0-5	Nil
6 to 50	Per year 1% of total construction cost
51 & Above	Maximum 50% of total construction cost should be given

(4) Carpet area, Built-up area:

If carpet area is mentioned in the document then built-up area should be arrived as follows:

Built up area = 1.20 X carpet area

Note: In case of old buildings where builders have recorded super-built-up area or saleable area or built-up area or carpet area including common space etc. in the original agreement and in the records of the society the carpet area of individual flats is not available, then it is better to obtain a certificate of carpet area along with the plan of the flat from an architect. On the basis of this certificate you can get the letter from the society regarding carpet area of your premises.

(5) Residential Projects

For valuing value of Flat / Apartments

	Rates to be considered as per value of the respective
i) Built up area from 25 sq. mtrs to 100 sq. mt	Decrease by 10%
ii) Between 101 to 200 sq. mt	Increase by 10%
iii) 201 sq. mt & above	Increase by 20%

Annual Statement of Rates (ASR 2006)

(6) Valuation of Banks and Hospitals, Nursing Home, Coaching Class, Gymnasium and Library:

(a) Determining the value of Banks, Hospitals, Nursing Home, Coaching Class, Gymnasium and Library Situated on above first floor, rate for office from the respective value zones shall be taken into consideration,

(b) However, when the Banks, Hospitals, Nursing Home, Coaching Class, Gymnasium and Library are on the ground floor and first floor, rate for the shops from the respective value zones shall be taken into consideration.

(7) Basement :

If basement is used for residential use then it is to be valued at 40 % of the rate applicable to the Residence in the respective value zone.

If basement is used for commercial purpose then it is to be valued at the ASR applicable to the respective value zone.

(8) Mezzanine :

Valuation of Mezzanine should be valued at 70 % of the respective value zone rates.

(9) Shop on First Floor & Second Floor :

While valuing first floor shop in commercial Complexes, it should be valued at 75 % of the rate applicable to the shop in the respective value zone.

While valuing second and above floors' shop in commercial Complexes, it should be valued at 70 % of the rate applicable to the shop in the respective value zone.

(10) Shops having frontage of Road :

Shops having frontage of roads valuation shall be done on the basis of rates of shops in the respective value zone as mentioned in ASR

(11) Shops have no frontage on road :

75% of prevailing rates of shops in the respective value zone should be applicable. However, it should be observed that rate of 'shops with no road frontage' is not less than the rate of offices on upper floor. (No reduction for floor and road frontage for shop in shopping mall & arcade)

(12) Terrace:

Except terrace on individual Bungalow, valuation for the terrace for the purpose of flat/offices should be done at 40% of rate mentioned for the respective value zone.

(13) Open land surrounding the building :

When open land adjoining with flat / office / shop is purchased, the open land is to be valued at 30% of rate applicable to developed land value in the respective value zone. This rate should be applied on the apartment type building whose composite rates are applicable.

(14) Car parking :

Parking under closed garage under shed has to be valued at 5% of the rate applicable to property purchased in the respective zone. For open parking space valuation should be done by taking 10% rate of developed land prevails in the respective value zone.

Where area of parking is not mentioned 8 sq. mtrs. for each car space will be considered but where area is mentioned the same will be calculated based on that area.

Note : value such arrived will be added to the value of the property purchased.

(15) E.W.S. slums or other buildings:

Residential Building having total Built-up area up to 25 sq. mt, the value mentioned in the documents should be considered as market value for stamp duty purpose.

(16) Valuation of old Building (Tenanted Property – more than 15 Years) :

(Applicable only for tenanted residential property)

If the tenant is for more than 15 years, 20% reduction in actual market value (Municipal tax showing tenant in the property continuously for more 15 years or rent receipts as the case may be produced for evidence)

(17) Property sold by auction or tender procedure :

In such case the value is arrived by the Annual Statement of Rates or the value mentioned in the Agreement which ever is higher to be taken into consideration.

(18) Agriculture Land purchased for Non-Agriculture Purpose :

(With reference to: Bombay Tenancy Act, 1948, Section 63A & 63AA).

If agriculture land is purchased for non-agriculture purpose with permission of competent authority, in such case for stamp duty purpose value will be as per rate of appropriate purpose falls in the respective value zone. But if the area of such land is more than 10000 sq. mtrs. then 20% reduction in the respective ASR will be considered.

(A copy of Order by Competent Authority must be attached with the Document.)

Annual Statement of Rates (ASR 2006)

Input Form

In ASR 2006, Input Form is designed which is to be filled in by the presenting party at the time of registration of document on the basis of the information provided in the Input Form the Sub Registrar Office will calculate the amount to be paid towards stamp duty and registration fees, if party agrees to pay then after payment of such amount, the document will be registered by the sub registrar.

Apart form details of the seller and the purchaser and other related information particulars of the property like Postal Address, Locational details (i.e. F.P. No., Survey No., T.P.S. No., etc.), Category of property (viz. residential, commercial, industrial, etc.), Type of Property (viz. flat, bungalow, shop, office, factory shed, etc.), Area measurement of the property (viz. carpet area, built-up area, etc.), situational details (viz. ground floor, road facing, mezzanine floor, first floor, basement, etc.), type of structure (viz. RCC Frame, Load bearing, Semi pucca, Large scale industry, etc.), Amenities (viz. parking space, terrace, open marginal space, etc.), Stage of construction (i.e. complete, incomplete), Age of building, etc. are required to be filled in the Input Form.

Illustrations

For Urban area :

a) Calculate market value as per ASR 2006 for a 10 years old residential flat admeasuring 100 sq. mtrs. built-up area with terrace rights of open terrace admeasuring equivalent to 50 sq. mtrs built-up area and reserved covered car parking of one car space, situated & located on the land bearing F.P. No. 100 of T.P.S. 21 (Ambawadi) :

This flat falls under zone number 1 of T.P.S. 21 and as per ASR 2006 the composite rate for residential flat is Rs. 12,000/- per sq. mtr.

Therefore for a new flat value of flat	= 100 sq. mtrs. X Rs. 12,000/- per sq. mtr. = Rs. 12,00,000/-
Construction value of a new flat as per S.O.R. @ Rs. 5,000/- per sq. mtr.	= 100 sq. mtrs. X Rs. 5,000/- per sq. mtr. = Rs. 5,00,000/-
Less depreciation @ 1% per annum for 10 years old flat	= $10/100 \times \text{Rs. } 5,00,000/- = (-) \text{Rs. } 50,000/-$
Therefore present value of flat	= Rs. 12,00,000/- (-) Rs. 50,000/- = Rs. 11,50,000/- (A)
Add for value of terrace admeasuring equivalent to 50 sq. mtrs. built-up area respective value zone	= $40/100 \times \text{Rs. } 12,000/- \text{ per sq. mtr.} \times 50 \text{ sq. mtrs.} = \text{Rs. } 2,40,000/-$
Less 10% depreciation for a 10 years old building	= $10/100 \times \text{Rs. } 2,40,000/- = (-) \text{Rs. } 24,000/-$
Therefore present value of terrace	= Rs. 2,40,000/- (-) Rs. 24,000/- = Rs. 2,16,000/- (B)
Add for value of covered reserved car parking for one car space @5% of present value of flat in the respective value zone	= $5/100 \times \text{Rs. } 11,50,000/- = \text{Rs. } 57,500/- (C)$
Therefore Present Market Value for Stamp Duty & Registration Fees purpose of the flat as per ASR 2006	= (A) + (B) +(C)= Rs. 11,50,000/- + Rs. 2,16,000/- + Rs. 57,500/- = Rs. 14,23,500/-

Annual Statement of Rates (ASR 2006)



b) Calculate market value as per ASR 2006 for a 10 years old residential flat admeasuring 100 sq. mtrs. built-up area with basement admeasuring 50 sq. mtrs built-up area and open side marginal space in possession admeasuring 50 sq. mtrs, situated on the land bearing F.P. No. 100 of T.P.S. 21 (Ambawadi):

This flat falls under zone number 1 of T.P.S. 21 and as per ASR 2006 the composite rate for residential flat is Rs. 12,000/- per sq. mtr.

Therefore for a new flat value of flat	= 100 sq. mtrs. X Rs. 12,000/- per sq. mtr.= Rs. 12,00,000/-
Construction value of a new flat as per S.O.R. @ Rs. 5,000/- per sq. mtr.	= 100 sq. mtrs. X Rs. 5,000/- per sq. mtr.= Rs. 5,00,000/-
Less depreciation @ 1% per annum for 10 years old flat	= 10/100 x Rs. 5,00,000/- = (-) Rs. 50,000/-
Therefore present value of flat	= Rs. 12,00,000/- (-) Rs. 50,000/- = Rs. 11,50,000/- (A)
Add for value of basement admeasuring 50 sq. mtrs. built-up area @ of 40% of market value of flat for the respective value zone	= 40/100 X Rs. 12,000/- per sq. mtr. X 50 sq. mtrs.= Rs. 2,40,000/-
Less 10% depreciation for a 10 years old building	= 10/100 X Rs. 2,40,000/- = (-) Rs. 24,000/-
Therefore present value of basement	= Rs. 2,40,000/- (-) Rs. 24,000/- = Rs. 2,16,000/- (B)
Add for value of open side marginal space admeasuring 50 sq. mtrs. @ of 30% of market value of developed land for the respective value zone (value of developed land for zone number 1 of T.P.S. 21 is Rs. 20,000/- per sq. mtr.)	= 30/100 X Rs. 20,000/- per sq. mtr. X 50 sq. mtrs. = Rs. 3,00,000/- (C)
Therefore Present Market Value for Stamp Duty & Registration Fees purpose of the flat as per ASR 2006	= (A) + (B) + (C) = Rs. 11,50,000/- + Rs. 2,16,000/- + Rs. 3,00,000/- = Rs. 16,66,000/-

Comments on ASR 2006

Methodology, Conception & Basis

In the entire document of ASR 2006, Methodology, Conception & Basis involved in arriving at the Jantry is not mentioned, had it been done, the picture would have been more clear and helped the reader understanding it easily and made the document more palatable.

Zoning Approach in Urban Area:

Application of zoning within a ward of old city of Ahmedabad keeping in mind main road touch properties and interior properties seems to be effective and scientific.

However, in T.P. Scheme area it seems to be less effective and a complete re-zoning exercise is required to serve the purpose and the same is recommended.

Annual Statement of Rates (ASR 2006)

Jantry for Agriculture land in Rural Area :

A single rate per sq. mt. is adopted for agriculture land falling anywhere within the particular village limits.

In rural area where for an agriculture land which is going to be utilized for agriculture use only valuation should be done on the basis of "Agriculture Income" only which normally dependent on the classification of land viz. uttam, madhyam & kanishtha with further classification viz. piyat or bin piyat.

Revision of ASR from 2006 to 2008

The ASR 2006, made effective from 01-04-2008 was prepared as on market situation of 2006. Disclosure of method and basis to be adopted for a revision to 2008 is required in order to make it more compatible with the present time and market situation.

Revision of Jantry at every year

A permanent machinery is required to be set up at the State Government for a regular updation in the ASR as may be required from time to time.

To set up a permanent Valuation Committee at the District level is recommended which may be comprising of members from technical side like, Government Registered Valuers, Practicing Architects and Engineers, ineers, Town Planners, Real Estate Developers, Property Attorneys and Legal Advisors, Institution of related practicing professionals, sitting Govt. Officials from related departments and others.

ASR 2006 Challenged in Gujarat High Court

Due to various errors and discrepancies found in the document of ASR 2006, many have raised their objections. Kutchha Construction Industries and Rehabilitation Federation & their members have filed a writ in the Hon. Gujarat High Court through their advocate Mr. Girish Patel challenging the implementation of new ASR 2006 for the district Bhuj.

Ketan Brahmhatt
(Real Estate Valuer)

Readers of this article are requested to send their views/comments at E-mail - ketan@gicl.in

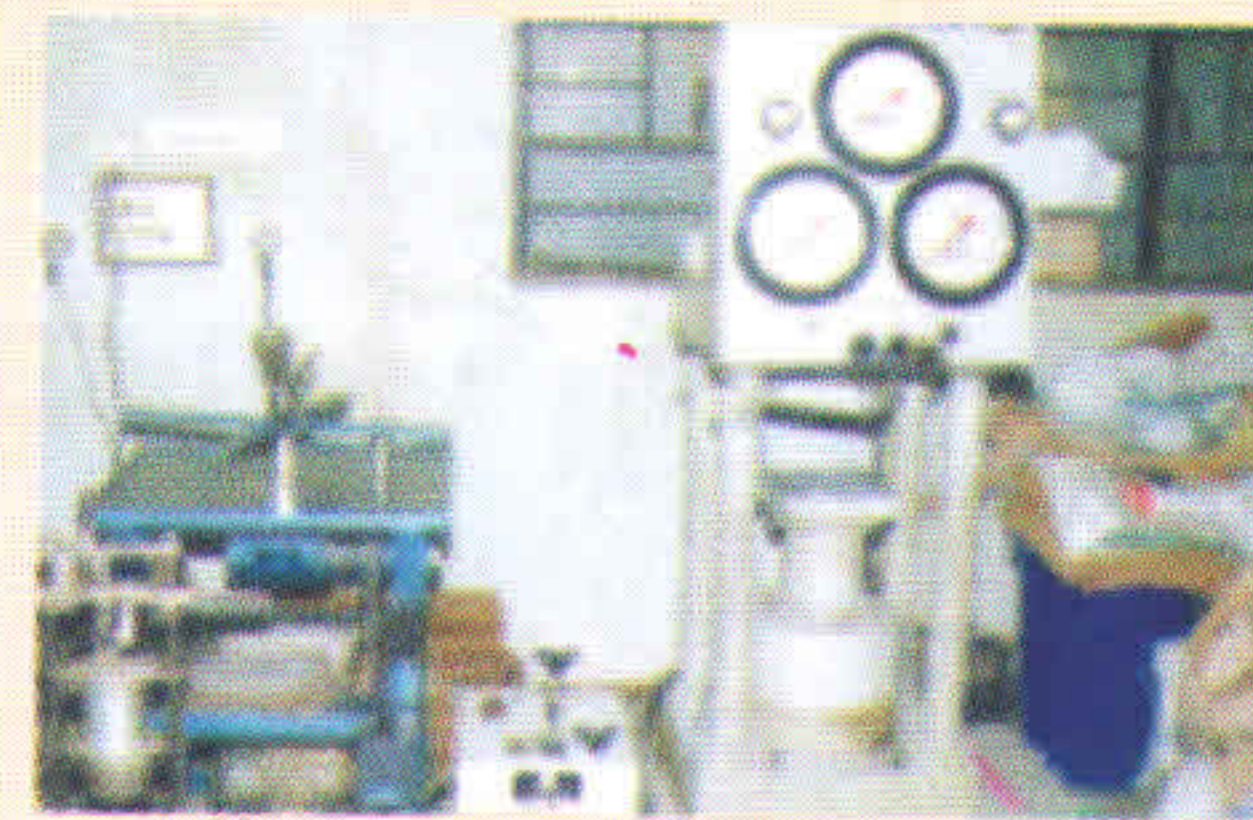
ADVERTISEMENT



Laboratory Services

We provide services for Material Testing, Geotechnical investigation, Project Monitoring, Project consultancy, Special Consultancy, Structure assessment, Quality Assurance, Quality Audit etc.

F.M. Patwa GICEA Material Testing Laboratory

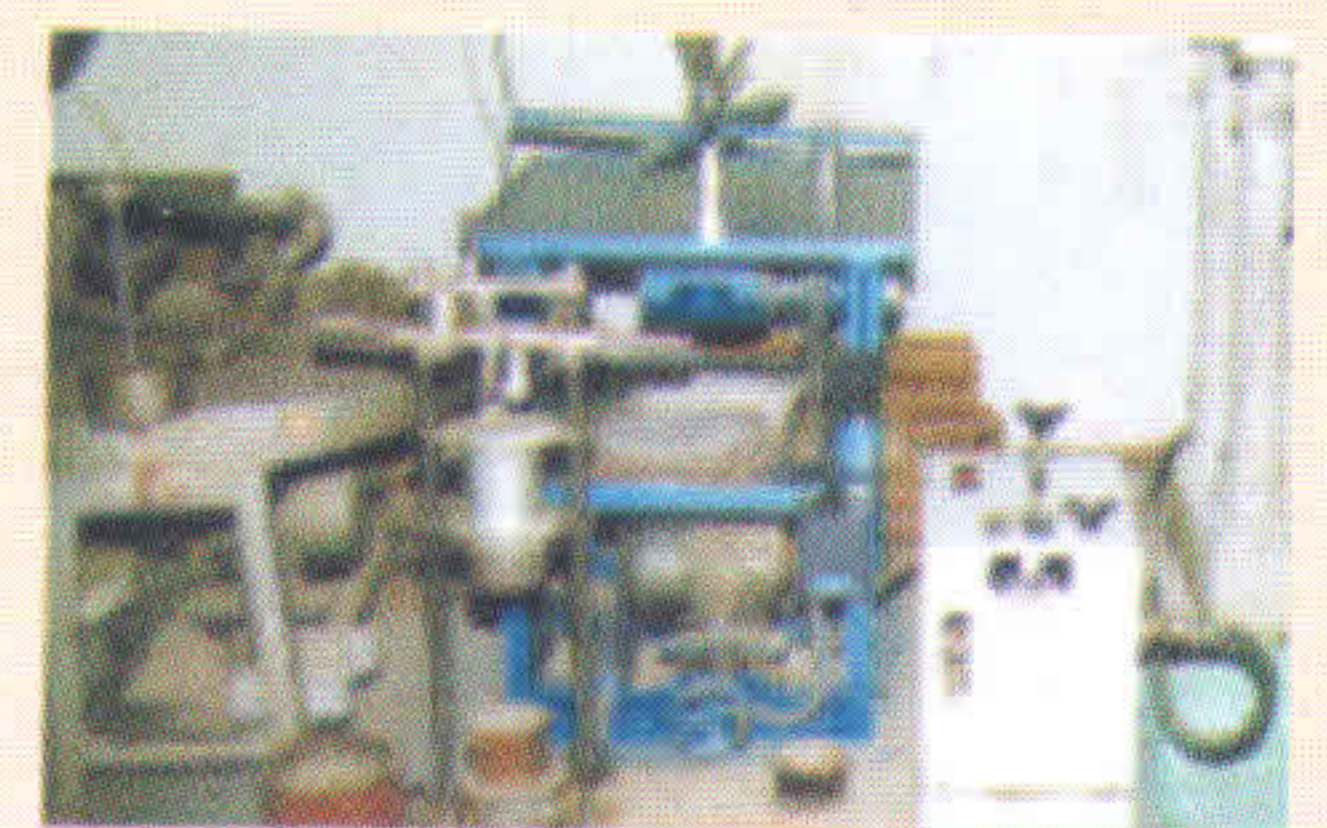


To promote quality standards in the profession GICEA has established a well equipped and fully facilitate Material Testing

Laboratory for the testing of various construction materials like cement, steel, aggregates, bituminous, tiles, cement blocks, concrete, bricks, wood etc. It is approved by Airport Authority of India, SSNL Governments of Gujarat.

N. G. Patel GICEA Soil Testing Laboratory

To generate precise technical inclination towards work procedure and design, GICEA has established well facilitate Soil Testing



Laboratory which provides services on site also. It is approved by Airport Authority of India, SSNL & Urban Development Department Governments of Gujarat.

Material Testing Services For your whole project at Concessional rate

◆ On site material collection



**THE GUJARAT
INSTITUTE OF
CIVIL ENGINEERS &
ARCHITECTS**

ESTD. : 1947

Nirman Bhavan,
Opp. Law Garden Road,
Ellisbridge, Ahmedabad 380 006, Gujarat.
Ph.: 079 26565935 | telefax : 079 26430213
gicea2005india@yahoo.co.in, contact@gicea.com
www.gicea.com

Report by Mr. Bhargav Desai & Mr. Jigar Pandya

Boom or Bubble



What Mr. N.K.Patel, Director RESMA said :

POSITIVE FACTORS RESISTING FALL OF PRICES IN AHMEDABAD MARKET

- Mass transport System (BRTS) & Sabarmati River front Development.
- Inflow of NRG fund.
- Very Dynamic leadership of Chief Minister.
- Speedy issuance of development permission by local authority.
- Additional advantage due to long coast line & state government's thrust in port development.
- Special advantage due to plain topography.

Projections : 2009-2010

MARKETS OVERVIEW- RESIDENTIAL

- 3BHK High -End Apartments prices likely to correct by 15%.
- More supply of 3BHK General/ Budget Apartments, less for Hi-end.
- Bungalow prices likely to correct by 20-25% with little additional supply

MARKETS OVERVIEW: RETAIL

- A new supply of 3 Lakh sq. ft. of mall space on S.G. Highway and a total of 10Lakh sq. ft. of exclusive mall space (organized retail) is expected to be supplied in year 2008.
- Further correction of 10% to 15% expected in Lease Rentals.
- Anchor tenants threaten to vacate Premier malls.
- Smarter models are likely to evolve to keep malls lively and attract high footfalls.
- Standalone hyper markets and grocery stores with franchise and retail chains are likely to grow by 20% YoY in sales and operations.

NEGATIVE FACTORS RESULTING FALL OF PRICES IN AHMEDABAD MARKET

- Very high prices of crude.
- Steep rise in inflation.
- Steep rise in construction cost.
- The mega projects declared by the state by government seems difficult to be completed as per the stipulated time frame.
- Land supply in fully developed, areas through housing board de reservation.

MARKETS OVERVIEW: COMMERCIAL

- Supply for Grade A office space likely to increase by 10%
- Correction of 10% to 15% expected in Prices of Grade office Space.
- Lease rentals for Grade A office space likely to increase by 5-7 Rs. per sq. ft. citing IT-ITES boom.
- Corporate parks likely to be proposed and implemented

MARKETS OVERVIEW: HOTEL & HOSPITALITY

- More than 30 New Hotels of 3-5 star category expected to supply more than 2500 rooms
- Gross Room tariffs may increase by 20%
- Medical Tourism likely to grow by 30% with demand for more than 200 hotel rooms and 250 hospital beds every year.
- Service apartments likely to take off.



WHAT MR. IRFAN RAZAK of PRESTIGE Group Bangalore Said :

HIS VIEWS ON IT MIGRATION FROM TIER II – TIER III

- Not immediately visible in a large way
- Will be driven by talent pool availability

“ WAH WAH AMDAVAD ”

- Infrastructure will be a challenge
- These locations need to be marketed consistently to be considered
- Government push is required

HIS VIEWS ON IMPACT OF INFRASTRUCTURE

- Will determine growth, development of suburbs and future of cities
- Good infrastructure will be a driving force for companies evaluating multiple options.
- Need to integrate the internal growth of a city's development with a strong external infrastructure.
- This requires a strong leadership and commitment.

HIS VIEWS ON KEY REQUIREMENTS FOR CITY INFRASTRUCTURE

To achieve a planned growth of a city, we need

- Strong leadership
- Committed administrative machinery
- Privatization of some of the Govt. functions including infrastructure projects
- Citizens' involvement
- Economic growth
- An integrated and inclusive approach

HIS PROJECTIONS FOR FUTURE

Residential Segment

- Overall stable
- Over supply in some segments
- Potential in the sub 50 lakhs Residential Market
- Smaller sizes in strong suburban areas
- Opportunities exist in the luxury market

Office Segment

- Demand may stagnate in IT
- CBD locations will be in demand for Corporate offices
- Potential for Small office units

Retail

- Density & Catchments will be the driving factor
- Rentals will be a factor of affordability only
- Better designed and Managed Malls will survive
- Over supply will create unhealthy competition

Hospitality

- With increase in tourism and business travel, the opportunities for development in all segments

Boom or Bubble



What Mr. Sunil Agrawal of Saare Group Delhi said :

CONCERNS FOR THE REAL ESTATE IN NEAR FUTURE

- High interest rates for developers from financial institutes.
- Increase in interest of home loan to individual buyer.
- Increase in cost of construction.
- Volatility in crude prices directly affecting the Central Govt. Reserves.
- Reduction in FII inflow.

Due to above factors, the sales of Real Estate products is bound to be affected & hence to maintain the liquidity the developers would be forced to reduce the prices & hence correction in the range of 10 to 15% would happen. Those developers who would deliver quality products meaning structurally sound, well finished & delivered as per schedule would not be hit by this correction cycle.



What Mr. Lalit Jain of Kumar Group Pune said :

AHMEDABAD REAL ESTATE HAS DISTINCT ADVANTAGE & UPPER EDGE OVER OTHER REAL ESTATE MARKET IN THE COUNTRY. THE REASON CITED TO SUPPORT HIS LOGIC ARE AS FOLLOWS.

- Excellent infrastructure in terms of road connectivity, uninterrupted power supply & radial growth of the city.
- Sound, Stable & Dynamic State leadership.
- The prevailing prices are very competitive compared to all INDIA PAN average prices.
- Increase in cost of construction.
- Very good law & order situations.
- Inflow of wealth from NRGs.
- Overall good economic condition of average citizen of Gujarat.

Due to above such & many other factors Ahmedabad Real Estate market would remain bullish & the reduction in Real Estate Prices is a far distance phenomena even nation wide.

World's Largest Offshore Wind Farm

Horns Rev



Mankind has been making use of wind power for thousands of years. The current trend is moving away from small groups of land-based wind turbines to larger offshore wind farms. Offshore turbines usually generate more electricity than do land-based turbines as the winds at sea are stronger and more constant than on land.

Wind energy is complementary to hydro power, nuclear power and thermal power. It provides a much-needed contribution to our electricity production and is also free of environmentally harmful emissions.

Wind power generation will increase substantially over the next few years. In percentage terms, wind energy is the energy source seeing the sharpest growth worldwide.

In 2002 the world's largest offshore wind farm was constructed off the Danish west coast. The Horns Rev wind farm is sited 14-20 km into the North Sea, west of Blåvands Huk, and represents the first phase in the Danish Government's ambitious plan - to have wind turbines with a total capacity of 4000 MW in Danish waters before 2030.

The background :

Historically, wind power capacity has been developed on land. But it has become increasingly difficult to obtain the required permits for turbine sites, and therefore alternatives are being considered. The interest has been particularly directed towards coastal areas with water depths of between 5 and 15 m and the possibility of locating the turbines so far away from the coast that they are visually neutral.

Wind power is a non-polluting source of energy, and it contributes significantly to minimization of CO₂ emissions. Moreover, offshore wind turbines provide an added environmental benefit : **the output from offshore installations is up to 50% higher than for comparable turbines on land.**

In 1998, the Danish Ministry of the Environment and Energy required the electricity suppliers to construct five demonstration wind farms with a combined output of 750 MW. In 2002 the newly-elected Danish government reduced the Plan of Action for wind energy to include only two demonstration wind farms, those of Horns Rev and Rødsand of 160 MW and 158 MW respectively.

Elsam and Eltra, the independent transmission system operator in Jutland and on Funen, were ordered to build the offshore demonstration wind farm at Horns Rev in the North Sea.

Horns Rev



The project :

The Wind Turbines have been spinning at Horns Rev in the North Sea, generating about 600 million kWh combined. That corresponds to the electricity consumption of some 150,000 private households (based on 4000 kWh per household) and 2% of Denmark's total consumption.



Why was the site of Horns Rev chosen?

To obtain the maximum capacity utilization for a wind turbine, it is necessary to find the right location with strong, constant winds, which release much energy.

These wind conditions are most frequently found at sea. Horns Rev in the North Sea is one of the very best conditions for wind energy. Here the wind blows at an average speed of 10 meter per second. That is ideal conditions for wind power generation.

A limited water depth is another important factor to make sure that the construction of the wind farm will not be unreasonably costly. Deeper the water, Costlier the project.

“ At Horns Rev the water depth is in the range of 6 to 14 metres. ”

How are flora and fauna affected?

Both before and during the construction of Horns Rev Offshore Wind Farm, large-scale environmental surveys were carried out to identify the impacts of the wind farm on flora and fauna. The following questions were addressed:

- What are the impacts on porpoises and seals?
- What are the impacts on benthic fauna?
- What are the impacts on bird life?

The environmental surveys showed that the wind turbine foundations have developed into a place where benthic fauna and algae, including several endangered species, thrive and grow.

Meaning more food for fish, porpoises and seals. Migratory birds usually avoid wind turbines and do not fly over the farm. Some bird species do not populate the offshore wind farm.

The wind farm consists of 80 wind turbines forming an oblique rectangle layout of 5x3.8 km (8 horizontal and 10 vertical rows). The distance between turbines is 560 m in both directions

Operations:

At Horns Rev was installed one of the world's biggest wind farms in terms of installed capacity (160 MW). The wind conditions and the effects of the wind farm wake are continuously studied from meteorological masts placed around the wind farm. These masts perform observations of wind and sea conditions from a level 4m BMSL (Below Mean Sea Level) up to a level 62/70 m AMSL (Above Mean Sea Level).

This range of heights corresponds to approximately a third of the estimated operation heights cover by a 12 MW turbine; thus there is a need to assess the wind resource at higher levels. The masts at Horns Rev are limited in terms of height (and in general all meteorological masts) because it is too expensive to erect higher masts due to the costs and the structural problems.

Horns Rev

“ This special wind assessment campaign took place during six months from May to October 2006. ”

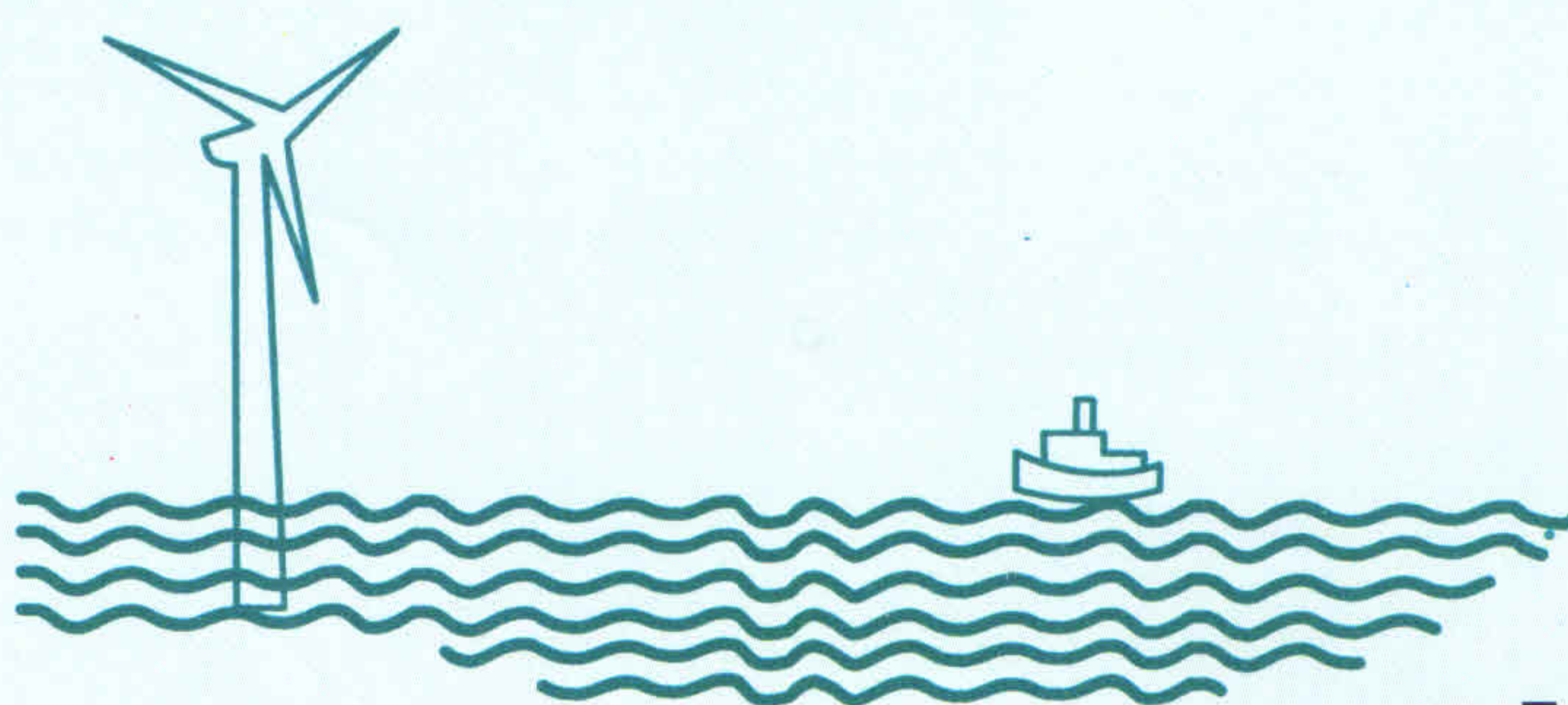
The Wind Energy department at Riso is aware of this problem. Therefore, the use of remote sensing instruments has been investigated during recent years. For the experiment at Horns Rev, two ground-based remote sensing instruments, a LiDAR (Light Detection And Ranging) and a SoDAR (Sound Detection And Ranging) were installed on the transformer/platform of the wind farm at 20 m AMSL.



From sea to shore :

The wind turbines are interconnected in a 33 kilovolt cable system. The power generated passes to a transformer platform on the fringe of the offshore wind farm.

Here the voltage is transformed up to 150 kV before the electricity is taken to the shore through a 21 km long submarine cable to Hvidbjerg Strand. The submarine cable, manufactured in Norway, is the first plastic-insulated 150 kV cable in the world. With a diameter of 19.2 cm, it is also the thickest submarine cable ever made.

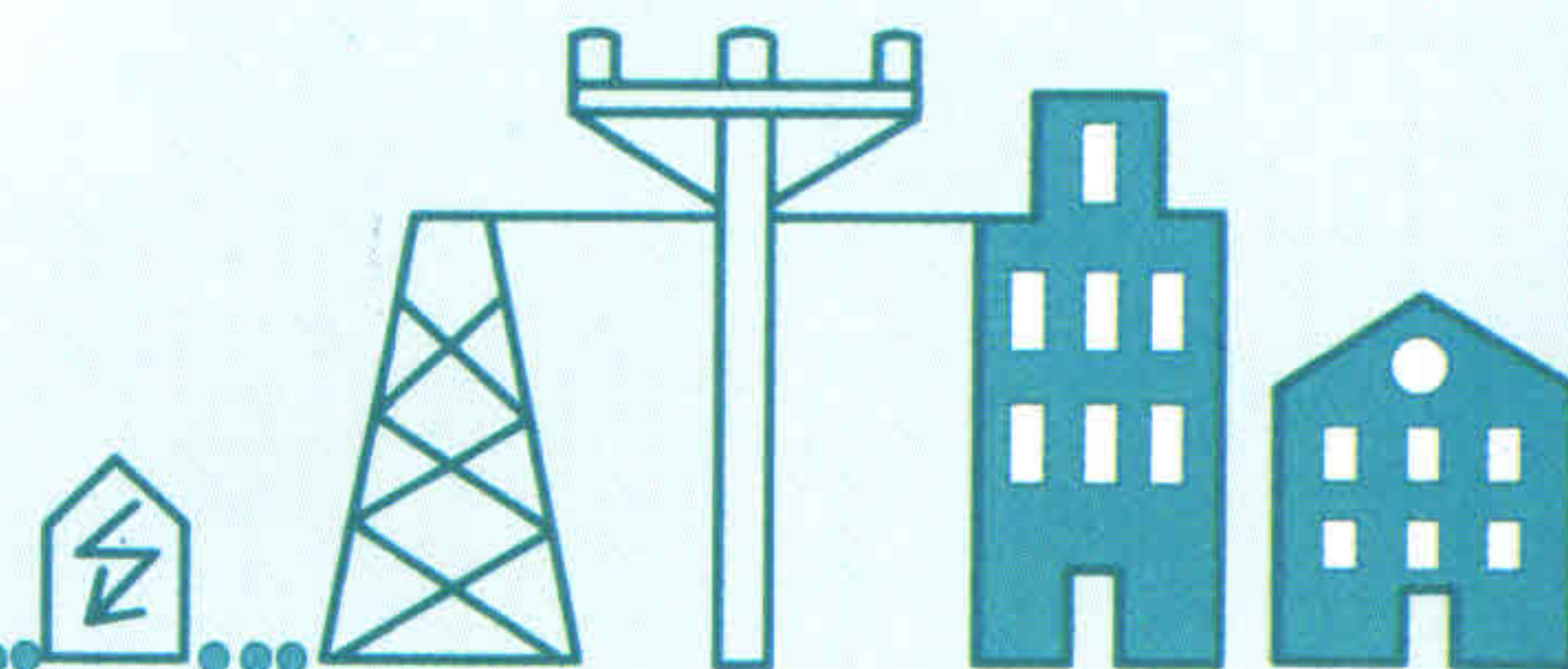


“ During the summer of 2006, the company Vattenfall obtained 60% ownership of the wind farm, previously operated and maintained by Elsam Engineering A/S. The remaining 40% is now owned by DONG energy. ”

From shore to land :

From a cable station, designed so as to blend into the landscape at Oksby, the electricity is transferred to a land-based cable. Through this cable, the electricity passes to the substation at Karlsgårde, 36 km away, and is then connected to the main transmission grid.

The land-based cable is made up of three conductors, interconnected in a triangle in the 1.3 metre deep and 1.4 metre wide cable trench.



Technical data on Horns Rev Offshore Wind Farm:

- Number of wind turbines: 80
- Hub height: 70m
- Blade length: 39m
- Rotor diameter: 80m
- Turbine weight: About 500 tonnes, including foundation
- Start wind speed for electricity production: 4 m/s
- Stop wind speed for electricity production: 13 m/s
- Distance between turbines: 560m
- Speed: 8-18 rotations per minute
- Capacity: 2 MW per turbine

Courtesy : Vatenfall, Denmark

A longest water-bridge over a waterway

Magdeburg Water Bridge

Magdeburg Water Bridge

Six years, Euro 500 million, 918 meters long - the world's longest water bridge!

This is the Canal Bridge over the River Elbe and joins the former East & West Germany, as part of the unification project. It is located in the city of Magdeburg near Berlin.

The 918-metre Magdeburg Water Bridge completed in October 2003, is a water bridge that connects two important German shipping canals, the Elbe-Havel Canal and the Mittellandkanal, which meet near Magdeburg and lead to the country's industrial Ruhr Valley heartland.

Engineers first conceived of joining the two waterways as far back as 1919, and by 1938 the Rothensee boat lift and bridge anchors were in place, but construction was postponed during World War II.

After the Cold War split Germany, the project was put on hold indefinitely by the East German government. With the reunification of Germany and the following establishment of major projects in transport tracks the Water Bridge again became a priority.

Construction began in 1997, and after six years and around half a billion euros, the gigantic water bridge now connects Berlin's inland harbor with the ports along the Rhine river.

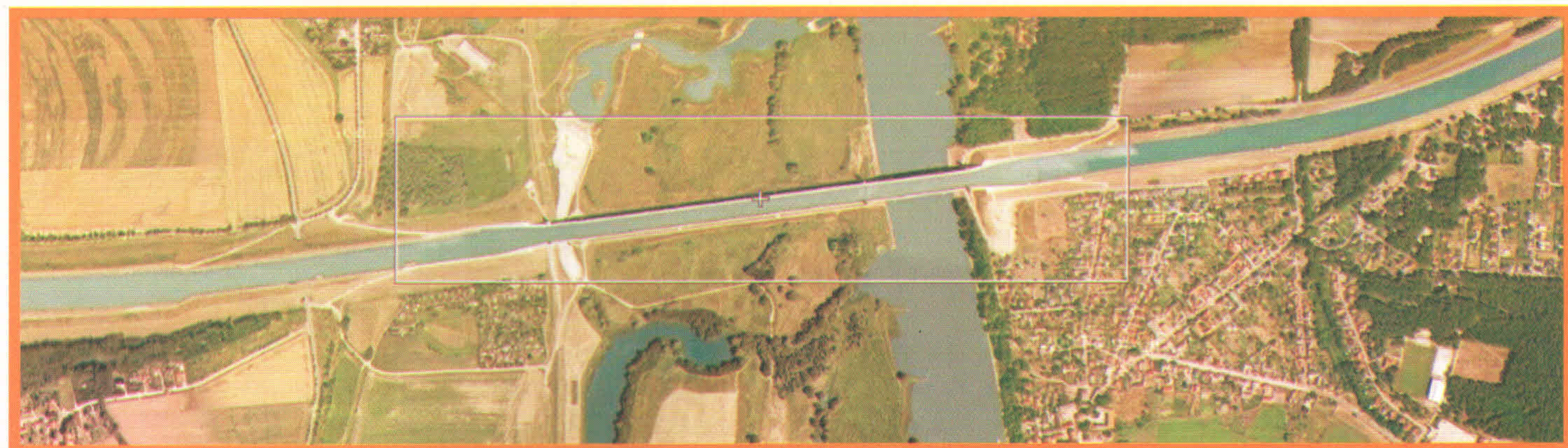
The huge tub created to transport ships over the Elbe took 24,000 metric tons of steel and 68,000 cubic meters of concrete to build.



“A Bridge of Water Over Another Waterway in Germany. Now this is engineering!”

The water bridge will enable river barges to avoid a lengthy and sometimes unreliable passage along the Elbe. Shipping can often come to a halt on the stretch if the river's water mark falls to unacceptably low levels.

Until the opening of the water bridge in October 2003, ships moving between the Midland canal and the Elbe-Havel canal had to detour 12 km through the Rothensee lock, the Elbe and the Niegripp lock.



Magdeburg

Water Bridge

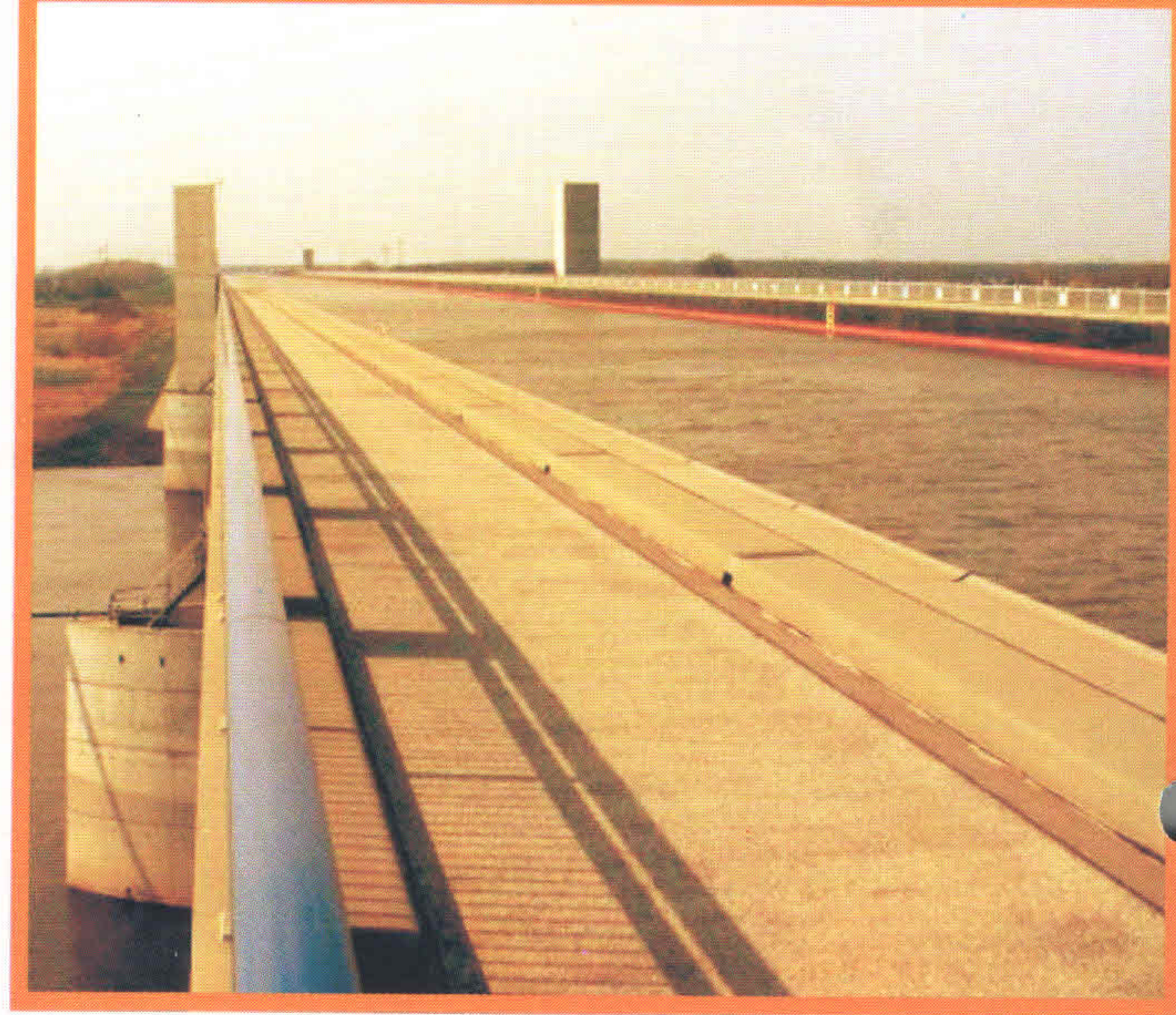
Barge captains will now be able to ship loads of up to 1,350 metric tons, the equivalent of 50 truckloads over the 34 mtrs wide and 4.25 mtrs deep water bridge. Previously, ships could only be loaded with 800 metric tons.

Achim Pohlman, president of the eastern sector of the Federal Waterways Directorate, now expects shipping volumes to increase along the east-west route.

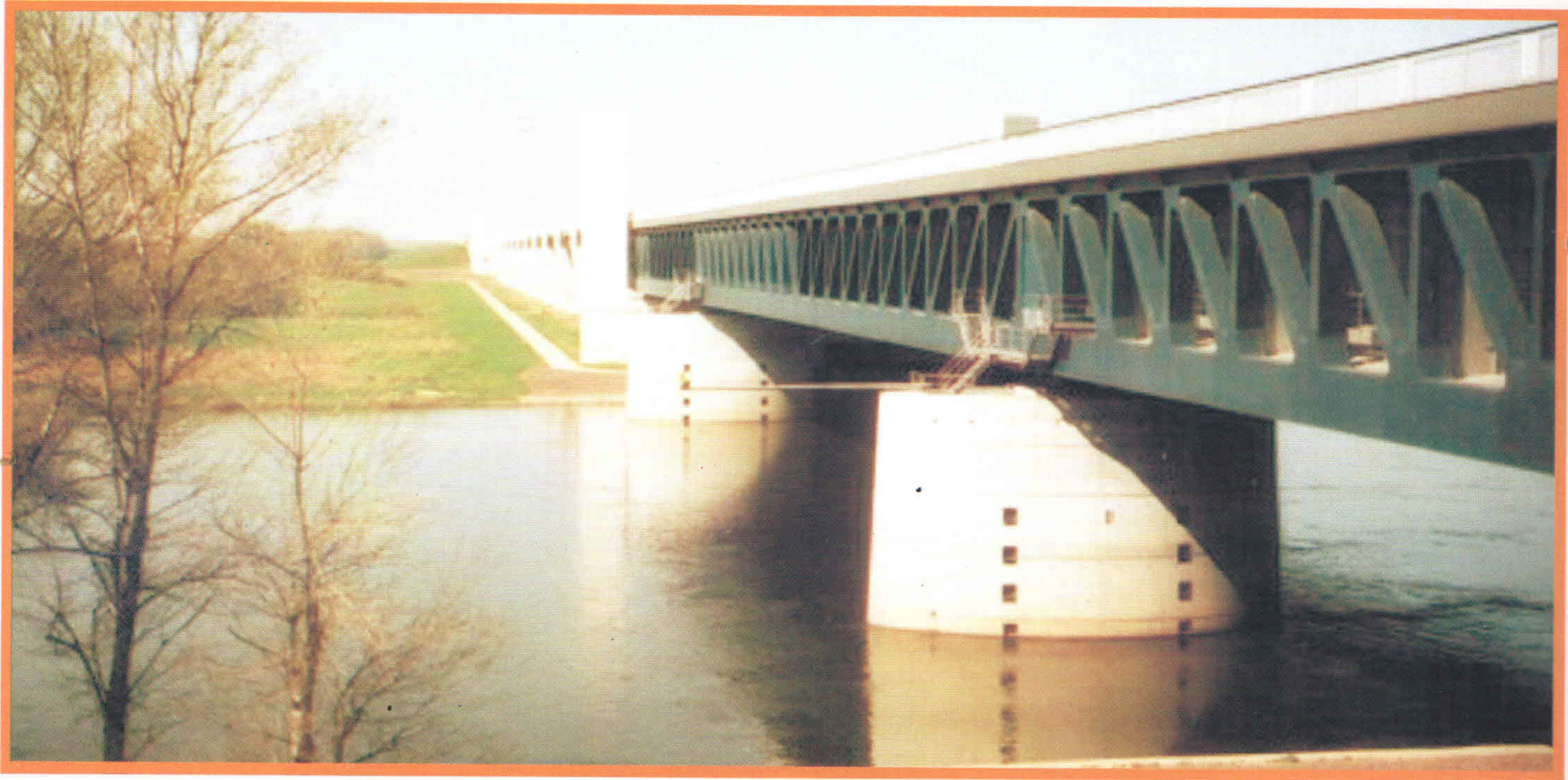
Whereas in 2002 around four million tons were moved, some are now forecasting seven million tons of goods by 2015.

Magdeburg Water Bridge is considered a technical masterpiece of the century and with its completion another tourist attraction was added to the capital city of Saxony-Anhalt.

In fact, the new attraction has been perfectly integrated into the **"Blue Ribbon of the River Elbe"** project, the major promotional campaign to entice many national and international visitors and active water fans to the region as well as to Magdeburg, the Cathedral City on the banks of the river Elbe.



It's important to us to make the waterways attractive to industry as a safe and environmentally friendly transportation way," German Transportation Minister Manfred Stolpe said at the opening ceremony, according to the Associated Press.



Courtesy : ianztrainz.com.au, en.structurae.de, wiki.worldflicks.org

Bird's Nest Engineered for Sports

Beijing Olympic Stadium 2008

One of the most exciting stadiums ever built, the Beijing National Stadium - known as the 'bird's nest' because of its beguiling latticed surface - is celebrating Olympics successfully"

It is designed by Swiss architects Herzog and De Meuron, with the Chinese artist Ai Weiwei as stylistic consultant.

Herzog and DeMeuron's Olympic Stadium, fondly referred to by some as the "Bird's Nest," is a feat of engineering, an aesthetic marvel, and a green machine to boot. What is so adorable about the stadium's design is its integration of a myriad complex systems all rolled into such an aesthetically and conceptually simple and stunning object.

The Swiss architects describe it best, saying, "The spatial effect of the stadium is novel and radical and yet simple and of an almost archaic immediacy. Its appearance is pure structure. Facade and structure are identical."

The structure itself is composed of a grid-like formation that serves as both structure and facade, integrating the stairs, walls, and roof into one cohesive system. Instead of form being dictated by function, Herzog and DeMeuron's design effectively removes the distinction, making function and form one in the same.

Such a large-scale and highly-trafficked building raises questions of waste, efficiency, and cost, but the " **Bird's Nest** " seems to pose innovative, green solutions to a variety of potential building issues.

Its green features include a rainwater collection system, a translucent roof that provides essential sunlight for the grass below, and a natural, passive ventilation system.



Beijing Olympic Stadium 2008

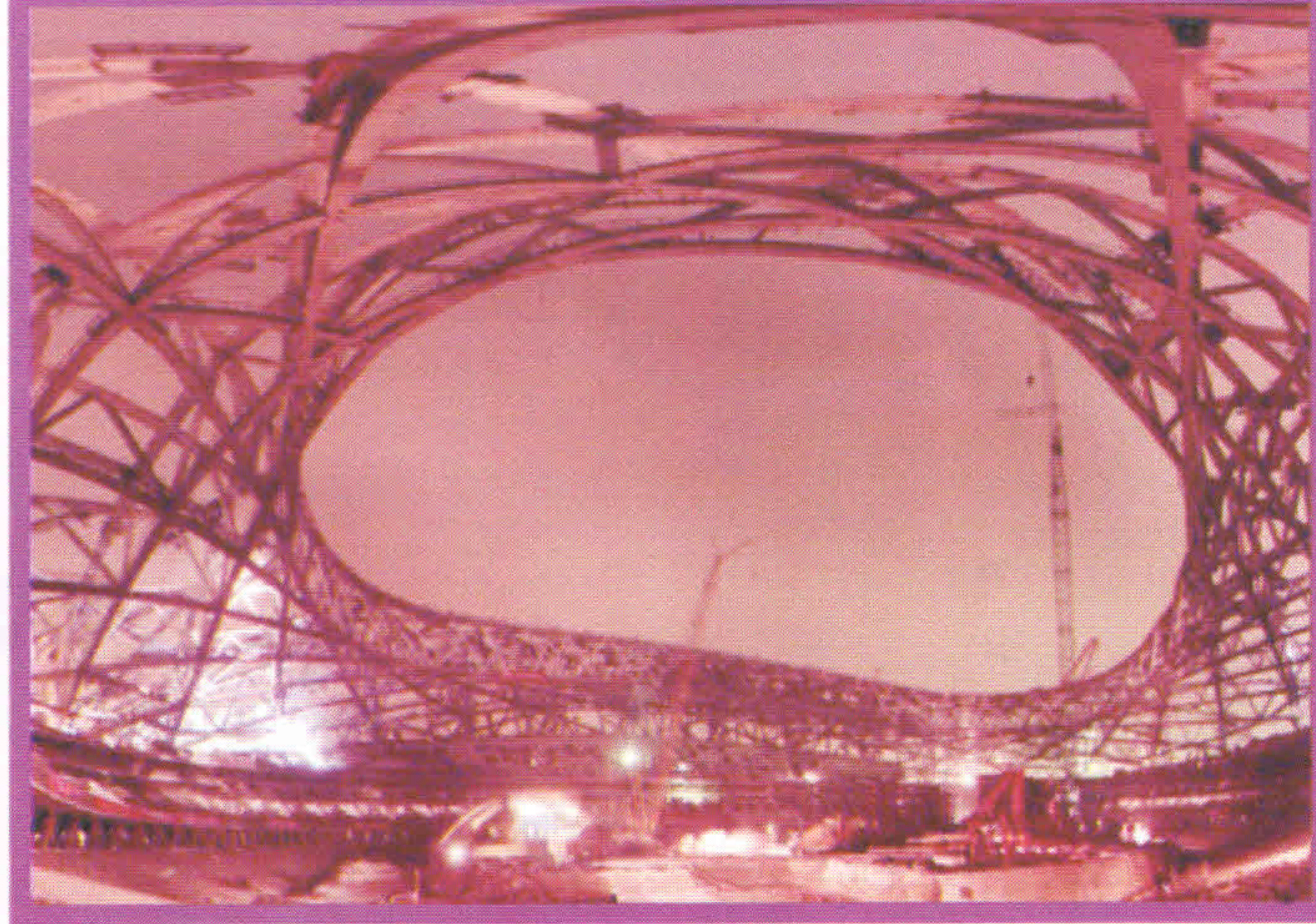
Perhaps the most unique feature of the structure is its "cushion" system which strategically fills the spaces within the building's facade to regulate wind, weather, and sunlight.

On the rooftop, the inflatable cushions fill gaps to weather- and waterproof the stadium. "Just as birds stuff the spaces between the woven twigs of their nests with a soft filler, the spaces in the structure of the stadium will be filled with inflated cushions."

Coincidentally, the cushions will be made from ETFE, the same material used to create the translucency of the "bubble building" across the Olympic park.

Sculptural rather than an architectural sensory overload like many a contemporary stadium, "it meets all the functional and technical requirements of an Olympic National Stadium, but without communicating the insistent sameness of technocratic architecture dominated by large spans and digital screens."

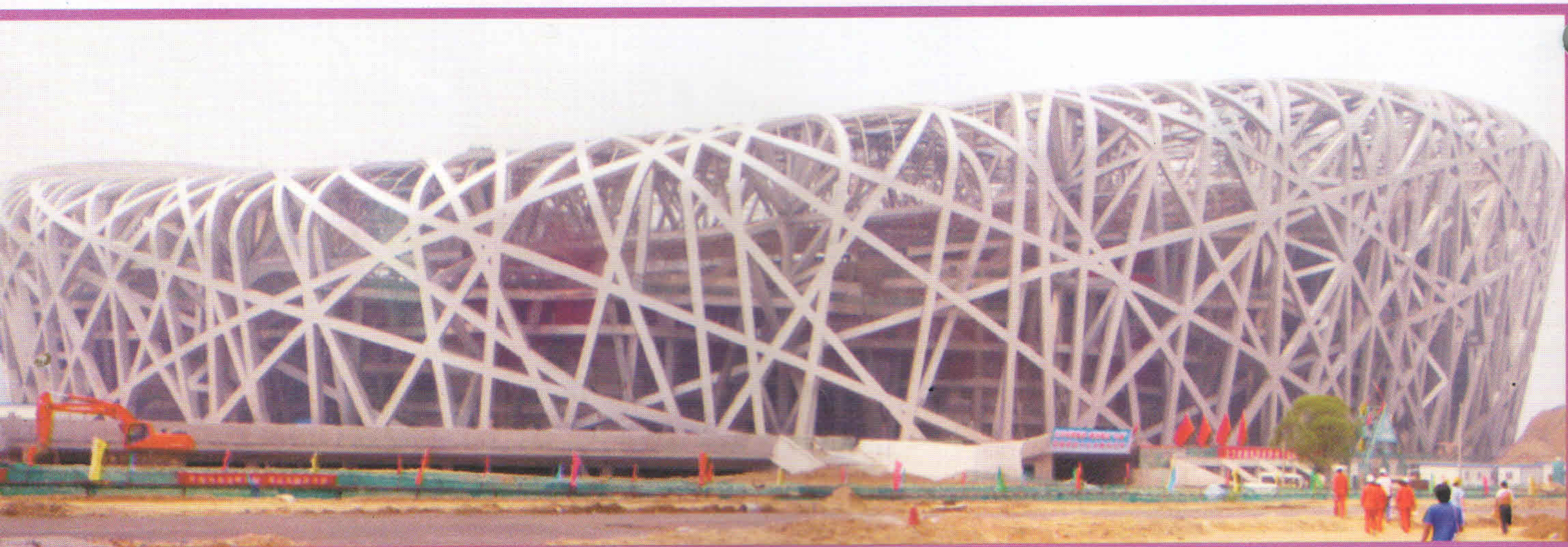
- Venue: National Stadium;
- Location: Olympic Green;
- Total land surface: 258,000 sq m;
- Permanent Seats: 80,000;
- Temporary Seats: 11,000;
- Competitions: Athletics, Football;
- Post-Games use: The Stadium is to stage sports events at national and international levels, as well as cultural and entertaining activities;
- Groundbreaking date: Dec. 2003;
- Designer: Herzog & DeMeuron (Swiss) and China Architecture Design Institute



Capacity :

The stadium can seat as many as 91,000 spectators during the Olympics. The capacity will then be reduced to 80,000 after the Games. It has replaced the original intended venue of the Guangdong Olympic Stadium.

The stadium is 330 metres long by 220 metres wide, and is 69.2 metres tall. The stadium uses 258,000 square metres of space and has a usable area of 204,000 square metres. It was built with 36 km of unwrapped steel, with a combined weight of 45,000 tonnes.

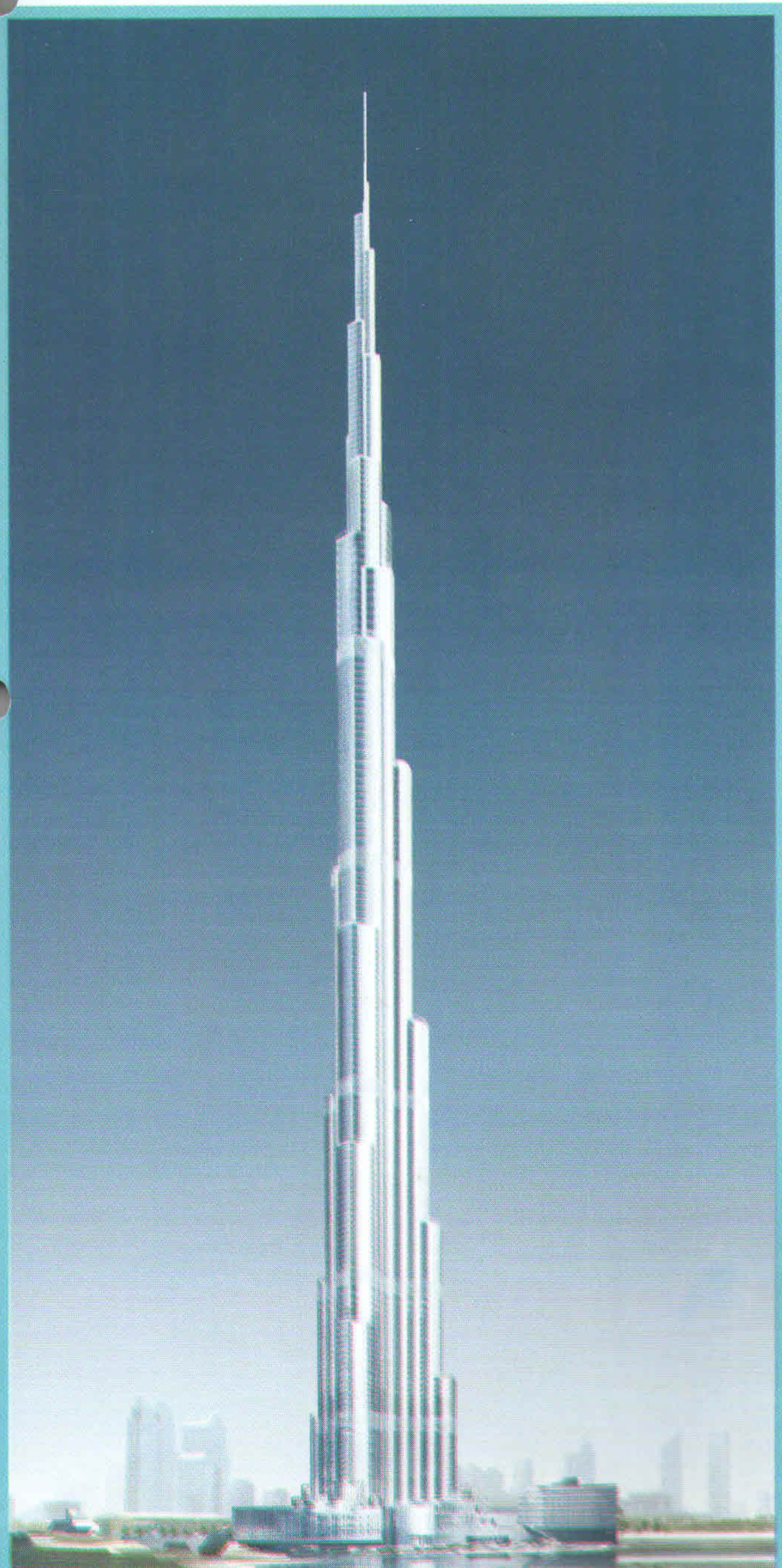


Courtesy: National stadium official website <http://en.beijing2008.cn>, faircosthousing.com, architecturelist.com & Special thanks to Wikipedia encyclopedia

How tall is too tall?

Mile High Tower

“ The Burj Dubai will soar 800m above the Arabian desert, but a new mile-high tower is set to dwarf it. After all, how tall is too tall ?



We're about to move into a new era of mega-tall buildings that will put structures like Chicago's Sears Tower, at 442 metres (1,450 feet) tall, and Taiwan's Taipei 101, at 508m, in the shade.

George Efstathiou, a managing partner at the architectural firm Skidmore, Owings & Merrill, declares that "the age of the super-skyscrapers is starting again". Considering the scale of the structures on the way, he could well be right.

The structure set to beat them all was announced at the end of March. The Mile High Tower, to be built in a "mini city" near the Red Sea port of Jeddah in Saudi Arabia, will be about 1,600 metres tall – seven times the height of the Canary Wharf tower in London Docklands, or four Empire State buildings on top of each other.

The tower is the brainchild of Prince al-Walid bin Talal, a member of the Saudi royal family and the owner of London's Savoy hotel.

According to Forbes magazine, he's worth about £11bn and is the 19th-richest person in the world. He needs to be: the estimated cost of the Mile High Tower – which, it is reported, will be built by the British engineering firm Hyder Consulting – is £5 billions.

Mile High Tower

The building will pivot on hi-tech wizardry. A giant computer-controlled damper (shock absorber) will stretch down several floors to counter the nausea-inducing sway caused by the wind. And two mini towers, attached by sky bridges, will flank the building's base, further improving its stability.

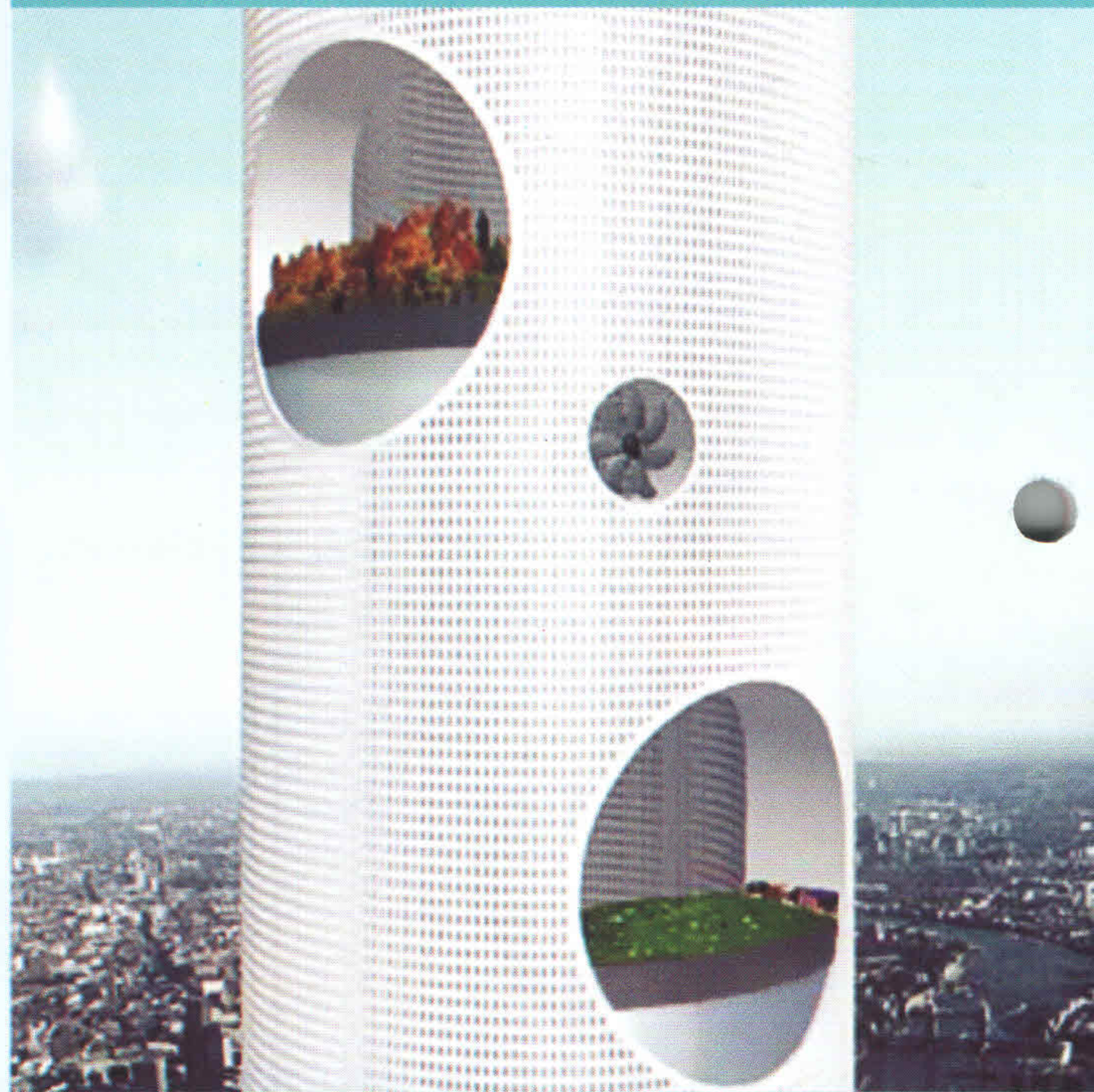
You'd imagine that the logistics and know-how needed to build this monolith would be enormous. They are, says Ron Klemencic, president of Magnusson Klemencic Associates, an engineering firm specialising in high-rise constructions. But such structures are now relatively easy to erect. "Structural engineering-wise, it's not even difficult," Klemencic says.

Stronger concrete and steel and advances in designing building frames, he says, allow for the safe development of mega-skyscrapers.

The current record-holder as tallest man-made structure is still a construction site. The Burj Dubai in the United Arab Emirates edged past Taiwan's Taipei 101, reaching 509m in July last year. Sources say the tower – being built by Skidmore, Owings & Merrill – will reach just over 800m when it is completed by the end of next year. The spire will be visible from 95km (60 miles) away – and the views will naturally be stunning.

The quantity of materials involved in the building's construction is mind-boggling. For example, the 31,000 tons of steel rods used to reinforce the structure would, if laid end to end, stretch one-quarter of the way round the world. When the tower is finished, 230,000 cubic metres of concrete will have been used. It will weigh about 500,000 tons.

When structures are so tall, it isn't just materials you have to worry about; it's the tools needed to build them. The tower cranes used to build conventional high-rise buildings, which are fixed to the ground, can carry enormous weight – but for mega-skyscrapers, helicopters are needed to lift materials to the higher levels.



Tall storeys :

The 60-storey Woolworth Building in New York, built in 1913, required 17 million bricks, 7,500 tons of terra cotta, 53,000 pounds of bronze and iron hardware and 87 miles of electric wiring.

The **Empire State Building** in New York required 60 miles of water pipe and 3,500 miles of telephone and telegraph wire. Rain and snow can sometimes be seen rising instead of falling because of the wind patterns around the building.

The **World Trade Centre** in New York (built in 1970-71), used enough concrete to lay a pavement 5ft wide from New York City to Washington, DC, a distance of 204 miles. The electrical wiring for the twin towers would have reached from New York to Mexico (about 1,500 miles). More than a million cubic yards of earth and rock were excavated to make way for the World Trade Centre. The material went into the Hudson river, creating 23.5 acres of new land.

The **Sears Tower** in Chicago contains enough concrete to build an eight-lane highway five miles long. If laid out flat on the ground, the black "skin" of the tower would cover an area of 28 acres.

Mile High Tower

“ Numerous high-profile skyscrapers are now being built around the world, including New York's Freedom Tower on the World Trade Centre site. But none will exceed 700m in height. ”

The building set to replace Southwark Towers in London – the Shard London Bridge (also known as the "shard of glass") – will be a comparatively puny 310m tall and have 72 floors. When it is completed (estimates say in 2011) it will be Britain's tallest building. The 50-storey Canary Wharf tower at One Canada Square is the current record-holder at 180m.

Several other high-rises are proposed for the capital. But the Mayor of London, Boris Johnson, is critical of tall buildings and has vowed to strengthen regulations protecting views of historic buildings such as St Paul's Cathedral and the Palace of Westminster.

But how high can skyscrapers be? Is the sky a limit? David Scott, chairman of the Council on Tall Buildings and Urban Habitats (CTBUH) and principal at the New York-based engineering firm Arup, doesn't believe there is an absolute limit. "Mount Everest is essentially a pile of stone," he says. "You don't need a lot of technology to create it. Just a lot of money."



David Scott of the CTBUH agrees. "If you look at the holistic impact of tall buildings on urban living, they offer many benefits," he says. "Not only do they reduce things like car ownership, but they can use waste heat in winter to warm them, and they have the potential to generate more open spaces at ground level, as well as reducing suburban sprawl. In the case of London, it can either expand outwards or upwards."

But George Efstathiou, the architect, perhaps has the real reason for our love of skyscrapers:

" Tall buildings are a matter of ego. Tall buildings are a sign of success. "

Engineers and architects have always speculated about how tall skyscrapers could be. Frank Lloyd Wright designed a mile-high tower, the Illinois, to be built in Chicago. It was proposed in 1956. Most experts agree that the technology was there to build it at the time, but not the investment.

But money isn't the only limiting factor. Elevator technology lags behind building technology, and one obvious issue is lift cables; if they had to raise a lift one mile, they would be far too heavy. In Burj Dubai, no elevator goes all the way from the ground to the top.



Mile High Tower

There's also we frail humans to consider. If an express elevator – at speeds up to 25mph – went from the ground floor to the top, we could pass out due to changes in the air pressure.

Then there's the problem of building movement. Most skyscrapers can sway a few metres in the wind without tumbling down, but the people inside might feel uncomfortable, if not downright nauseous, especially on higher floors. So the tallest structures need sturdy central cores to anchor them. The Empire State Building in New York, and other skyscrapers of that time, had steel beams wrapped around their elevator shafts.

The Burj Dubai has a "buttressed core", or concrete hub, with three wings spreading out to form a kind of tripod. When the wind blows against two of the wings, the third supports them. Taipei 101 has a 730-ton pendulum in the top of the building; the giant ball swings against the movement to keep the upper floors steady.

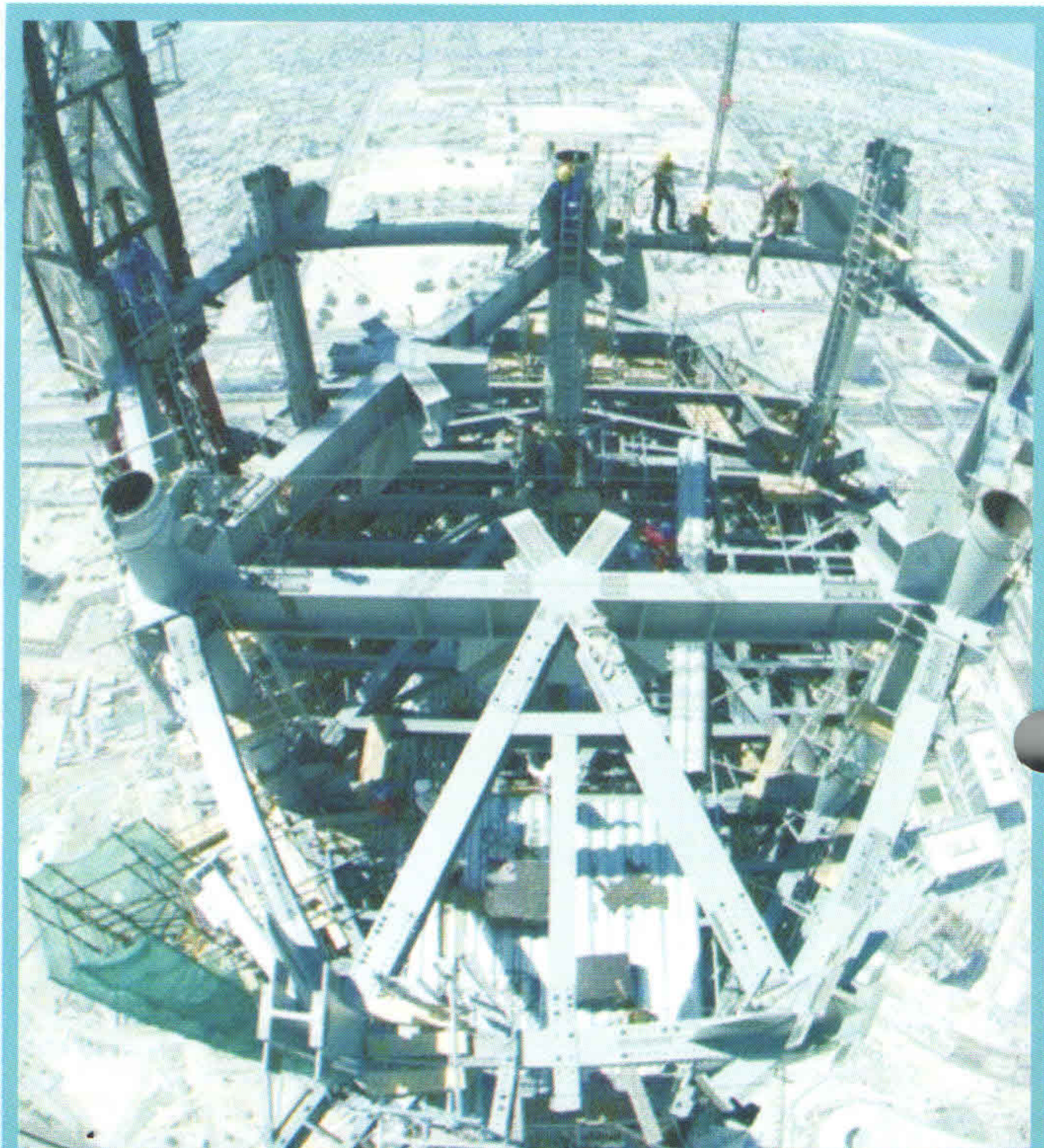
More difficult are natural disasters, particularly earthquakes that could topple a skyscraper. In areas of high seismic activity, such as California, strict building-codes are in place to protect against earth tremors. The most common defence is to use mass dampers – essentially seismic shock absorbers – made of giant springs or hydraulic systems that move in the opposite direction to the earthquake's oscillations.

Dampers – essentially seismic shock absorbers – made of giant springs or hydraulic systems that move in the opposite direction to the earthquake's oscillations.

And today, there's the threat of terrorism. Tall buildings are a target because they are iconic, and because they contain so many people. Lessons have been learnt from the attacks on the World Trade Centre, which led to the collapse of the towers. More internal supports make collapse far less likely. Stairwells are made wider to aid emergency evacuation, and ventilation systems force smoke out rather than letting it spread upwards, as if in a chimney.

But the fact is that there are hazards everywhere in life. And most experts agree that the benefits of skyscrapers outweigh the downsides. Bill Baker, chief structural engineer at Skidmore, Owings & Merrill, believes that building high is not only safe, but necessary to stop cities devouring green-belt land. "Urban density is good," he says.

" Everyone uses public transportation, people walk to lunch. Look at the Sears Tower in Chicago. It has 4.4 million square feet that's 100 acres on one city block. "



Construction View of Burj Dubai from Top

Courtesy : Barry Wigmore & Mail Online

Step inside the newly rebuilt

Turtle Creek Casino



WILLIAMSBURG, Michigan (AP) Step inside the newly rebuilt Turtle Creek Casino & Hotel and you'll find the typical blackjack tables, slot machines and loosen your belt buffet. But your eyes and nose may detect unusual features.

During daytime, half the casino's lighting comes from skylights. Drinks are served only in glasses: no cans or bottles. Some gamblers are smoking, but the air isn't thick with smoke. And, outside, the roof of Bourbons 72 restaurant sports day lilies, ferns and leafy hostas.

Turtle Creek, near Traverse City, bills itself a "green" casino, designed to make the lightest possible footprint on the landscape without sacrificing profitability.

Its owners, the Grand Traverse Band of Ottawa and Chippewa Indians, are among a growing number of casino builders and operators interested in environmental stewardship.

In April, the Palazzo Las Vegas resort became the world's largest building project to receive a Leadership in Energy and Environmental Design, or LEED, certificate from the U.S. Green Building Council. CityCenter, a resort complex under construction in Las Vegas, is among at least 10 casino-related projects nationwide seeking certification.

The council has an extensive rating system for building design, construction and operation. No casinos have been certified thus far; the Palazzo's LEED certificate was just for its hotel.

Tax incentives and the prospect of lower electric bills were big motives, said Gordon Absher, spokesman for MGM Mirage, which is developing and co-owns CityCenter. "And from a social perspective, it's the right thing to do."

The 360,000-square-foot, \$116 million Turtle Creek replaces a smaller casino that will be torn down and mostly recycled.

"As native people, we feel an obligation to protect Mother Earth in everything that we do," said Robert Kewaygoshkum, chairman of the nearly 4,000-member Grand Traverse Band.

Going green boosted the price of developing Turtle Creek about 10 percent, but tribal leaders expect to save money in the long run.

"The sustainability mind-set is affecting all kinds of choices, including what places you want to visit for entertainment," said designer Knowles.

For instance, in nearby Petoskey, when the Little Traverse Bay Bands of Odawa Indians opened a casino resort a year ago in previously open farmland, it planted prairie grass and native tree species and preserved wildlife habitat on the property, tribal chairman Frank Ettawageshik said. The long-range plan is to power the resort at least partly with wind or solar energy.

The Turtle Creek Casino & Hotel has skylights, a wastewater-treatment system and other green features.

WORLD'S FIRST NOMINATED GREEN CASINO

Turtle Creek

Casinos typically face a big obstacle to LEED certification: the need to satisfy customers who smoke. LEED requires separate smoking areas and systems to contain and remove smoke and monitor air quality, said Ashley Katz, spokeswoman for the green building council.

Absher said those requirements make the casino the only section of the 76-acre, mixed-use CityCenter project that MGM doesn't expect will qualify for LEED certification, despite the casino's other sustainable features.

"We will meet all the other standards," he said. "But we cannot overcome this. Smoking is something that is very important to our customer base at this point."

It's especially hard to limit tobacco use in a tribal casino, given its iconic status in American Indian culture. But Turtle Creek developers tried to do the next best thing by installing a purifying system.

Outdoor air is pumped continuously into the gambling area through vents in the raised floor. Smoky air rises to the ceiling and is piped through filters, cleansed and sent back outside.

"When you're standing next to someone who is smoking, you'll smell it a bit," said Steven Feringa, tribal architect. "But the majority of the smoke is going to shoot up and away from you."

Casino

Whether Turtle Creek qualifies for LEED or not, the tribe used the green building council's checklist for guidance.

Senior construction manager Andrew La Pointe noted slot machines that use half the electricity of conventional models, roads and parking lots made from recycled materials, and low-energy, long-lasting light bulbs.

"With a little luck, I'll be close to retired before we need to change them," said LaPointe, 47.

The resort has its own well and a sewage treatment system that purifies 90,000 gallons daily before returning the water to the ground almost as clean as before.

It also uses nature's cleanup crew: trees and other plants. The 2,400-square-foot "green roof" over one section of the building will filter storm water contaminants and provide insulation.

In slight depressions on the grounds will be about 100 black willows.

They'll be clones of an ancient giant black willow in Traverse City. The species absorbs toxins from runoff before it reaches the groundwater, says David Milarch, founder of the Champion Tree Project.

If the trend catches on, green casinos could be ideal showplaces for environmental stewardship, said Anne Woiwode, director of the Sierra Club's Michigan chapter.

"One of the challenges with energy efficiency and green technology is showing people how doable and beneficial it is."

"You'll likely be getting that message through to a heck of a lot more people in an entertainment setting than you will in a green office building."

Courtesy : economictimes.indiatimes.com

WORLD'S FIRST NOMINATED GREEN CASINO

Turtle Creek

Casinos typically face a big obstacle to LEED certification: the need to satisfy customers who smoke. LEED requires separate smoking areas and systems to contain and remove smoke and monitor air quality, said Ashley Katz, spokeswoman for the green building council.

Absher said those requirements make the casino the only section of the 76-acre, mixed-use CityCenter project that MGM doesn't expect will qualify for LEED certification, despite the casino's other sustainable features.

"We will meet all the other standards," he said. "But we cannot overcome this. Smoking is something that is very important to our customer base at this point."

It's especially hard to limit tobacco use in a tribal casino, given its iconic status in American Indian culture. But Turtle Creek developers tried to do the next best thing by installing a purifying system.

Outdoor air is pumped continuously into the gambling area through vents in the raised floor. Smoky air rises to the ceiling and is piped through filters, cleansed and sent back outside.

"When you're standing next to someone who is smoking, you'll smell it a bit," said Steven Feringa, tribal architect. "But the majority of the smoke is going to shoot up and away from you."

Casino

Whether Turtle Creek qualifies for LEED or not, the tribe used the green building council's checklist for guidance.

Senior construction manager Andrew La Pointe noted slot machines that use half the electricity of conventional models, roads and parking lots made from recycled materials, and low-energy, long-lasting light bulbs.

"With a little luck, I'll be close to retired before we need to change them," said LaPointe, 47.

The resort has its own well and a sewage treatment system that purifies 90,000 gallons daily before returning the water to the ground almost as clean as before.

It also uses nature's cleanup crew: trees and other plants. The 2,400-square-foot "green roof" over one section of the building will filter storm water contaminants and provide insulation.

In slight depressions on the grounds will be about 100 black willows.

They'll be clones of an ancient giant black willow in Traverse City. The species absorbs toxins from runoff before it reaches the groundwater, says David Milarch, founder of the Champion Tree Project.

If the trend catches on, green casinos could be ideal showplaces for environmental stewardship, said Anne Woiwode, director of the Sierra Club's Michigan chapter.

"One of the challenges with energy efficiency and green technology is showing people how doable and beneficial it is."

"You'll likely be getting that message through to a heck of a lot more people in an entertainment setting than you will in a green office building."

Courtesy : economictimes.indiatimes.com

CAD Training

Why TRAINING is important?



With entry of global design and construction firm in to India's booming building industry, the consultants will have no option but to turn to advanced CAD management while many of the firms are collaborating with local firms on projects, they are also often competing with other Indian companies, particularly for large and prestigious projects. This completion is only going to grow in the future, and Indian consultant will find that they will have to double up and jump on to the technological bandwagon to stay in the race.

In India use of CAD may have mushroomed but the full potential is yet to be realized as the implications sink in, even more people is will turn to information technology. In turn, the software makers will work at creating programs that will help consultant manage their business profitably.

I've observed successful architects, engineers & consultants. I've discussed the issue with concerned experts and the only common answer that I have got was...

" We need to train ourselves and our team with changing time and technology if we really want to compete and survive in global market ... "

Benefits of Training :

- Training helps in MAXIMIZING THE UTILIZATION of human resource that helps the employee, achieve the organizational goals.
- Training helps in INCREASING THE SKILLS of employees at each level. It helps to expand the horizons of human intellect and an overall personality of the employees, resulting into better image of the company.
- Training helps in INCREASING THE PRODUCTIVITY of the employees that result into more saving of time money & energy.
- Training helps in bringing the sense of TEAM WORK, team spirit, and inter-team collaborations that result into better retention of staff and a healthy work culture.
- Training helps IMPROVE PROFITABILITY and more positive attitudes towards profit orientation.

The right employee training, development and education, at the right time, provides big payoffs for the employer in increased productivity, knowledge, loyalty, and contribution.

