

# SkyAve - Creating a Life of Happiness

This is a 222-story luxury residence, set to rise within a bustling global metropolis over the next two years. A 65.6-meter-wide steel core encircles the building, spiraling up to the 126th floor high in the sky, allowing over 6,280 households to enjoy a luxury lifestyle secluded from the urban clamor, while remaining immersed in the vibrant pulse of city streets.

"SkyAve" will carve out a new realm within the concrete jungle of the modern city—one that balances soaring height with human warmth, offering residents a life most worthy of living on this planet.

## 4 Key Features of SkyAve

- Technology:** Building floors, beams and ramps adopt the Hi-tech, ultra-strong & ultra-light steel core slabs, extending the service life by over 300%, shortening the construction period by 60%-80%, and reducing the costs by 40%-60%.
- Environmental Protection:** All-steel structure, zero concrete & zero construction waste, passive house insulation, near-zero energy consumption; 100% clean fresh air supply.
- Safety:** In addition to standard fire protection measures, external fire escape routes and fire escape stairs are provided; the all-steel structure is earthquake-resistant.
- Comfort:** 4m floor height, which is 1/3 higher than that of traditional residential buildings; Spacious external spiral ramps are available for floors below the 126th floor, providing convenient spaces for residents's exercise and socializing.

## Function of Spiral Ramp

- The spiral ramps ascend from the 1st to the 126th floor at a ~10% gradient, spanning 5.1km. With widths of 6.5m, this 33,462 m<sup>2</sup> spiral ramp enhances structural stability and enriches the building's functions:
- Residents' morning jogging, strolling, dog walking, socializing, square dancing, outdoor barbecues, and large festive banquets, realising high-rises from enclosed living spaces.
  - Kids' activities like playing games, exercises and races. Children can play freely and grow up happily with a crowd of peers.
  - Emergency fire escape.
  - Hosting world-class events like marathons, cycling, karting, and EV races, plus tourist climbing and high-end product releasing events.
  - Late-night delivery of oversized renovation materials and maintenance equipment that are difficult to handle by elevators. 8t truck weight limit (24t max. occasionally).
  - Each floor features a link bridge to the spiral ramp, anchored by a 100-160m<sup>2</sup> bar and restaurant. Residents can savor over 120 unique dining experiences.

## BLDNG Specs

No.	Item	Data
1	FLRS	222F
2	Tip of BLDG	1,022m (4m higher than Jeddah Tower)
3	Top Occupied Floor	900m (4m higher than Jeddah Tower)
4	Gross Floor Area	903,731 m <sup>2</sup>
5	Net Floor Area	735,778 m <sup>2</sup> Parking: 72,240
6	EFF Ratio	81%
7	BLDNG Base Size	120 m x 120 m
8	FLR HT	4m
9	CLR HT	3.33m
10	Structure	carbon Steel Zero Concrete
11	Facade Area	296,184 m <sup>2</sup> car park excluded
12	Facade	4-panel ultra-clear TMPD GL
13	Auto. Shade	Ext. sunshade, Int. thermal shade
14	HVAC	Central AC, Fresh Air, HWH
15	Car accessible HT	504m - 126F
16	Spiral Ramp Length	5,148km
17	Spiral Ramp Area	33,462 m <sup>2</sup>
18	Spiral Ramp Width	6.5m
19	Ramp Load	Typical: 8 t, Max: 24 t
20	Elevator QTY	74 units
21	Elevator Cab	26 persons / cab (2 t / cab)
22	Factory Lead Time	12 months
23	Construction Period	6 months (finishes excluded)
24	Structure Lifespan	200 yrs
25	Design Standard	Local building codes

## STRUCT Specs

No.	Item	Data
1	STRUCT HT	m 900 (ANT 1022 m)
2	Aspect Ratio	7.5
3	Vertical Setback	4 steps, setback 11.8 m at each step
4	FLR HT	m 4m
5	Beam HT	m 0.67 (Incl. FLR slab)
6	COL spacing	m 11.8
7	Beam span	m 11.8 x 4
8	Structural material	EN S420A (Carbon Steel)
9	COL size	mm 1200x1980x400
10	Girder	mm 1178x670x100
11	Beam	mm 327x100x45
12	COL steel usage	kt 8
13	FLR Slab steel usage	kt 1.3 (incl. beams)
14	Spiral Ramp steel usage	kt 1.3
15	Total steel usage	kt 16.1
16	Steel usage per unit	kg/m <sup>2</sup> 178

## Observation Deck Data

No.	Item	Data
1	Deck Area	6,565 m <sup>2</sup>
2	Max. capacity	5,000 persons (1-h stay)
3	Elevator QTY	12 Units (10 m/s)
4	Passenger/ trip	312 persons
5	Passenger/ 12 h	56,160 persons (4min./trip)
6	Annual Visitors	10M persons (50% occupancy)
7	Est. Annual Revenue (USD)	\$1B (\$ 100/person)

## Residence Data

No.	Unit Type	LOC	No. of Unit	Area / Unit (m <sup>2</sup> )	Occupants	Total Residents	Elevator QTY	Speed (m/s)
1	SM Unit	8-69F	4392	43-73	3	13176	24	4
2	MED Unit	70-148F	1608	152-170	3.5	5628	16	6
3	LRG Unit	129-148F	240	287	4	960	6	8
4	LUX Unit	149-168F	40	623	6	240		
5	Hotel	169-219F	951	51-64	1.3	1236	Shuttle: 6 Local: 7	10 3
Total		8-219F	7231			21240	59	

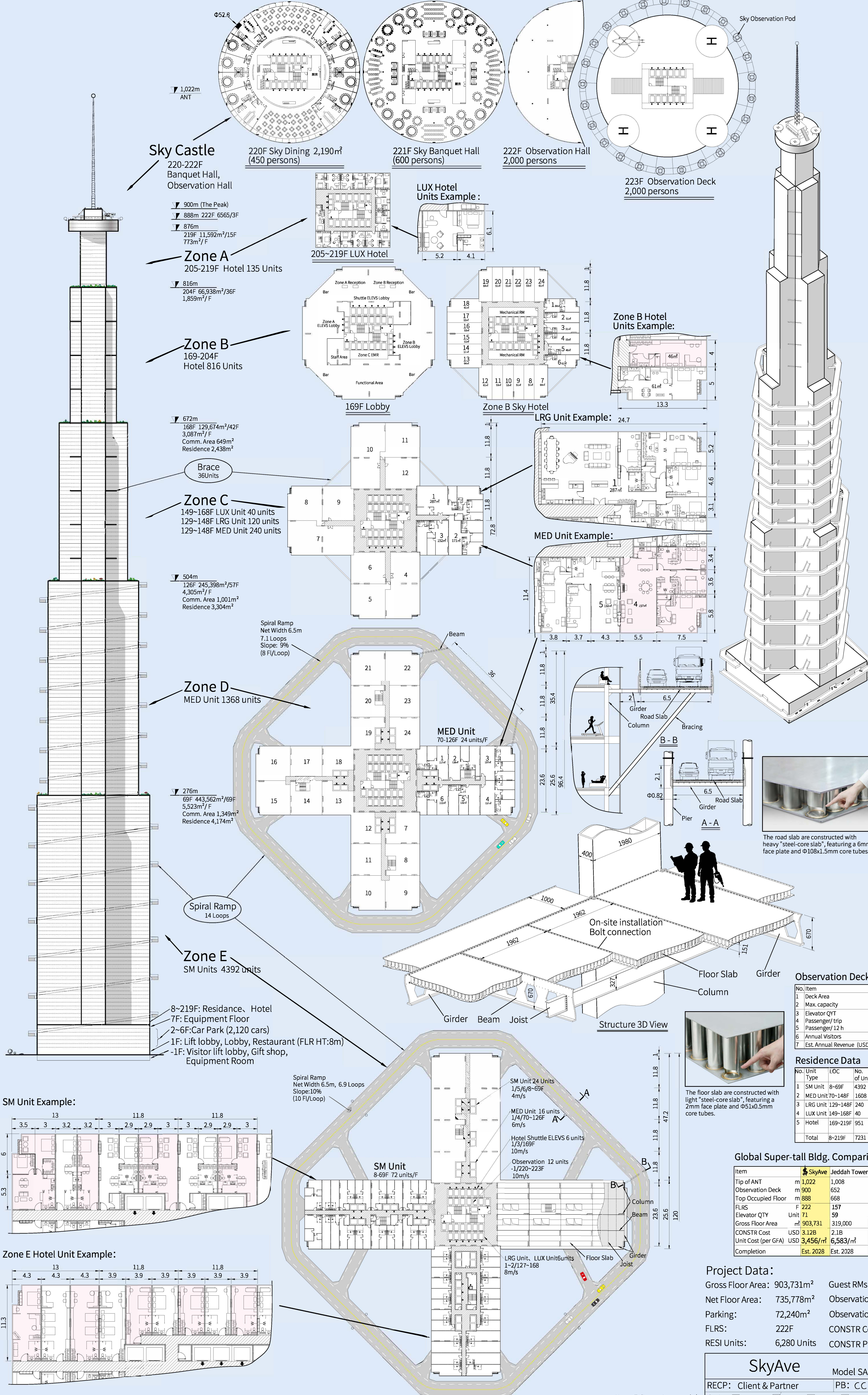
## Global Super-tall Bldg. Comparison

Item	SkyAve	Jeddah Tower	Burj Khalifa	SH Tower	One WTC	Taipei 101
Tip of ANT	m 1,022	1,008	828	632	546.2	509.2
Observation Deck	m 900	652	564.9	546	382.2	391.8
Top Occupied Floor	m 888	668	611.3	561.3	386.5	439.2
FLRS	F 222	157	163	128	94	101
Elevator QTY	Unit 71	59	58	111	73	61
Gross Floor Area	m <sup>2</sup> 903,731	319,000	309,473	380,000	325,279	294,258
CONSTR Cost	USD 3.12B	2.1B	1.5B	2.4B	3.9B	1.93B
Unit Cost (per GFA)	USD 3,456/m <sup>2</sup>	6,583/m <sup>2</sup>	4,847/m <sup>2</sup>	6,316/m <sup>2</sup>	11,990/m <sup>2</sup>	6,572/m <sup>2</sup>
Completion	Est. 2028	Est. 2028	2009	2015	2014	2004

## Project Data:

Gross Floor Area:	903,731m <sup>2</sup>	Guest RMs:	951 Units
Net Floor Area:	735,778m <sup>2</sup>	Observation Deck HT:	900m
Parking:	72,240m <sup>2</sup>	Observation Ticket Revenue:	\$1 B/year
FLRS:	222F	CONSTR Cost:	\$3.12 B
RESI Units:	6,280 Units	CONSTR Period:	2 years

<b>SkyAve</b>		DWG NO: T-TJ-260428
RECP: Client & Partner	Model SA222	DSGN PH: Plan C
CLS: <input type="checkbox"/> PUB <input type="checkbox"/> INT <input type="checkbox"/> SEC <input type="checkbox"/> CONF	PB: CC	CHK: L B APP:
		DATE: 26.04.28



**Sky Castle**  
220-222F  
Banquet Hall,  
Observation Hall

**Zone A**  
205-219F Hotel 135 Units

**Zone B**  
169-204F  
Hotel 816 Units

**Zone C**  
149-168F LUX Unit 40 units  
129-148F LRG Unit 120 units  
129-148F MED Unit 240 units

**Zone D**  
MED Unit 1368 units

**Zone E**  
SM Units 4392 units

**Spiral Ramp**  
14 Loops

**Brace**  
36 Units

**SM Unit Example:**

**Zone E Hotel Unit Example:**

**SM Unit**  
8-69F 72 units/F

**MED Unit**  
70-126F 24 units/F

**MED Unit Example:**

**LRG Unit Example:**

**Zone B Sky Hotel**

**Zone B Hotel Units Example:**

**LRG Unit Example:**

**MED Unit Example:**

**Zone A Reception**

**Zone B Reception**

**Zone C Reception**

**Zone D Reception**

**Zone E Reception**

**Zone F Reception**

**Zone G Reception**

**Zone H Reception**

**Zone I Reception**

**Zone J Reception**

**Zone K Reception**

**Zone L Reception**

**Zone M Reception**

**Zone N Reception**

**Zone O Reception**

**Zone P Reception**

**Zone Q Reception**

**Zone R Reception**

**Zone S Reception**

**Zone T Reception**

**Zone U Reception**

**Zone V Reception**

**Zone W Reception**

**Zone X Reception**

**Zone Y Reception**

**Zone Z Reception**

**Zone AA Reception**

**Zone AB Reception**

**Zone AC Reception**

**Zone AD Reception**

**Zone AE Reception**

**Zone AF Reception**

**Zone AG Reception**

**Zone AH Reception**

**Zone AI Reception**

**Zone AJ Reception**

**Zone AK Reception**

**Zone AL Reception**

**Zone AM Reception**

**Zone AN Reception**

**Zone AO Reception**

**Zone AP Reception**

**Zone AQ Reception**

**Zone AR Reception**

**Zone AS Reception**

**Zone AT Reception**

**Zone AU Reception**

**Zone AV Reception**

**Zone AW Reception**

**Zone AX Reception**

**Zone AY Reception**

**Zone AZ Reception**

**Zone BA Reception**

**Zone BB Reception**

**Zone BC Reception**

**Zone BD Reception**

**Zone BE Reception**

**Zone BF Reception**

**Zone BG Reception**

**Zone BH Reception**

**Zone BI Reception**

**Zone BJ Reception**

**Zone BK Reception**

**Zone BL Reception**

**Zone BM Reception**

**Zone BN Reception**

**Zone BO Reception**

**Zone BP Reception**

**Zone BQ Reception**

**Zone BR Reception**

**Zone BS Reception**

**Zone BT Reception**

**Zone BU Reception**

**Zone BV Reception**

**Zone BW Reception**

**Zone BX Reception**

**Zone BY Reception**

**Zone BZ Reception**

**Zone CA Reception**

**Zone CB Reception**

**Zone CC Reception**

**Zone CD Reception**

**Zone CE Reception**

**Zone CF Reception**

**Zone CG Reception**

**Zone CH Reception**

**Zone CI Reception**

**Zone CJ Reception**

**Zone CK Reception**

**Zone CL Reception**

**Zone CM Reception**

**Zone CN Reception**

**Zone CO Reception**

**Zone CP Reception**

**Zone CQ Reception**

**Zone CR Reception**

**Zone CS Reception**

**Zone CT Reception**

**Zone CU Reception**

**Zone CV Reception**

**Zone CW Reception**

**Zone CX Reception**

**Zone CY Reception**

**Zone CZ Reception**

**Zone DA Reception**

**Zone DB Reception**

**Zone DC Reception**

**Zone DD Reception**

**Zone DE Reception**

**Zone DF Reception**

**Zone DG Reception**

**Zone DH Reception**

**Zone DI Reception**

**Zone DJ Reception**

**Zone DK Reception**

**Zone DL Reception**

**Zone DM Reception**

**Zone DN Reception**

**Zone DO Reception**

**Zone DP Reception**

**Zone DQ Reception**

**Zone DR Reception**

**Zone DS Reception**

**Zone DT Reception**

**Zone DU Reception**

**Zone DV Reception**

**Zone DW Reception**

**Zone DX Reception**

**Zone DY Reception**

**Zone DZ Reception**

**Zone EA Reception**

**Zone EB Reception**

**Zone EC Reception**

**Zone ED Reception**

**Zone EE Reception**

**Zone EF Reception**

**Zone EG Reception**

**Zone EH Reception**

**Zone EI Reception**