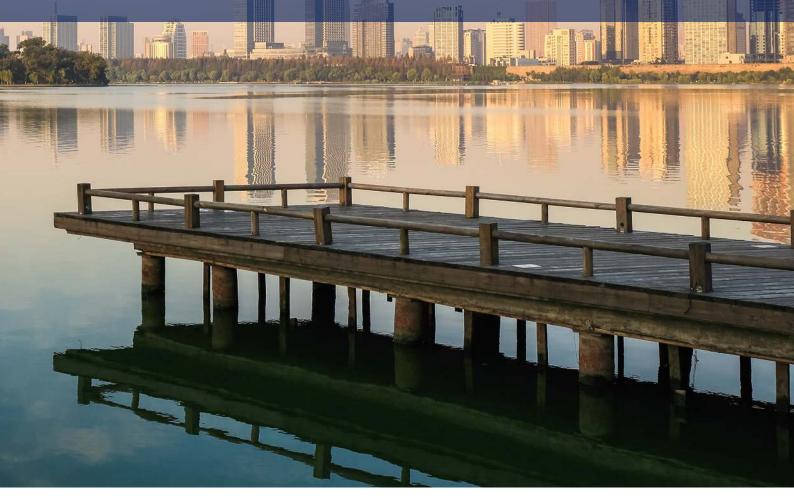
June 2019

# CHINA REPORT

# CONSTRUCTION PROCUREMENT AND COST INTELLIGENCE





# OFFICES AROUND THE WORLD

## AFRICA

**Botswana** Gaborone

#### Mauritius Saint Pierre

Mozambique Maputo

#### **South Africa**

Cape Town Durban Johannesburg Pretoria Stellenbosch

# ASIA

**North Asia** 

Beijing Chengdu Chongqing Dalian Guangzhou Guiyang Haikou Hangzhou Hong Kong Jeju Macau Nanjing Nanning Seoul Shanghai Shenyang Shenzhen Tianjin Wuhan Wuxi Xiamen Xian Zhuhai

#### South Asia

Bacolod Bohol Cagayan de Oro Cebu Davao Ho Chi Minh City Iloilo Jakarta Kuala Lumpur Laguna Metro Manila Singapore Yangon

#### AMERICAS

Caribbean

Barbados Cayman Islands St. Lucia

#### **North America**

Austin Boston Calgary Chicago Denver Hilo Honolulu Las Vegas Los Angeles Maui New York Orlando Phoenix Portland San Francisco San Jose Seattle Toronto Tucson Waikoloa Washington DC

### EUROPE

#### **United Kingdom**

Birmingham Bristol Cumbria Leeds Liverpool London Manchester Sheffield Thames Valley Warrington/Birchwood

#### RLB | Euro Alliance

Austria Belgium Bulgaria Croatia Czech Republic Denmark Finland France Germany Greece Hungary Ireland Italy Luxembourg Montenegro Netherlands Norway Poland Portugal Russia Serbia Spain Sweden Turkey

# OCEANIA

Australia Adelaide Brisbane Cairns Canberra Coffs Harbour Darwin Gold Coast Melbourne Newcastle Perth Sunshine Coast Sydney Townsville

#### New Zealand

Auckland Christchurch Hamilton Palmerston North Queenstown Tauranga Wellington

### **MIDDLE EAST**

**Oman** Muscat

**Qatar** Doha

**Saudi Arabia** Riyadh

#### **United Arab Emirates** Abu Dhabi

Dubai

# PROSPECTS FOR GUANGDONG-HONG KONG-MACAO GREATER BAY AREA

On 18th February 2019, the Central Committee of the Communist Party of China (CPC), and the State Council issued the [Outline Development Plan for the Guangdong-Hong Kong-Macau Greater Bay Area], which determined the national strategic positioning of the development of the Greater Bay Area. The goal of the Greater Bay Area is to build the world's emerging industries, advanced manufacturing and modern service bases, world-class urban agglomerations and international scientific and technological innovation centers with global influence, and become an important support for the construction of the "One Belt One Road" and a demonstration area for deep cooperation between the mainland and Hong Kong and Macao.

Guangdong-Hong Kong-Macao Greater Bay Area includes Hong Kong, Macau, Guangzhou, Shenzhen, Zhuhai, Foshan, Huizhou, Dongguan, Zhongshan, Jiangmen, Zhaoqing, a total area of 56,000 square kilometers. A total population of about 70 million people at the end of 2017, the gross domestic product of about 1.5134 trillion U.S. dollars, the airport passenger throughput of about 201.69 million passengers, port container throughput of about 68.34 million box, the tertiary industry accounts for 62% of GDP, is China's highest degree of openness, the strongest economic vitality of one of the regions, in the overall development of the country has an important strategic position. In terms of volume, Guangdong-Hong Kong-Macao Greater Bay Area has entered the global economic regional array, which can be seen as similar to the three major bay areas in the world, San Francisco Bay Area, New York Bay Area and the Tokyo Bay Area.

The Greater Bay Area has completed the Hong Kong-Shenzhen high-speed railway link section and Hong Kong-Zhuhai-Macao Bridge in 2018, and the next step will be to speed up the construction of a world-class airports, integrated transport corridors, rapid transit networks, ports, docks and urban supporting trillions of projects.

With the further development of the construction of the Greater Bay Area, the accelerated transformation of industrial structure, the rapid growth of the economy and the increase of income level, the construction industry and real estate industry will also be greatly developed.

The development of the Greater Bay Area will provide a large number of business opportunities for the engineering consulting industry.



# IMPORT PRICE COMPONENTS FOR CHINESE BUILDING MATERIALS/EQUIPMENT

Building materials/equipment import price refers to the price of building materials/equipment imported from one country to another country given that a normal trade is conducted, i.e. the price of the products that the importers sell to the exporters. The price is mainly composed of the following parts:

#### 1. Import price

Import price refers to sale price delivered to the shipment by the seller, so called FOB. Import price for building materials/equipment shall be calculated based on the manufacture's quotation and the purchase order.

#### 2. Import expenses

All the related expenses except the material/equipment price (FOB) during the I/E (import/export) trade for the materials/equipment transported into China by importers and exporters.

#### 2.1 International freight

The transportation cost from the port (station) of the seller to the port (station) in China. Most imported materials/equipment in our country are by shipping, some by railway and few by air. The international freight of the imported materials/equipment shall be calculated as below formula:

(1) International freight (sea, land, air) = Free on board (FOB) × Freight fee; or

(2) International freight (sea, land, air) = Freight quantity × Freight unit price,

Freight rate and freight unit price shall be calculated based on regulation from related authorities or I/E (import/export) company.

\*Free on board (FOB) + International freight = Cost and freight (CFR)

#### 2.2 Freight premium

The freight premium for I/E trade is a written agreement between the insurer (insurance company) and the insured (I/E company). The insurer shall reimburse the insured any financial loss under the liabilities which are covered in the insurance agreement. This falls under property insurance. The formula is freight premium = (Free on board (FOB) + Overseas freight) / (1 - premium rate) × premium rate. The premium rate shall refer to the premium defined by the I/E company for the imported goods.

\*Free on board (FOB) + International freight + freight premium = Cost insurance and freight (CIF)

#### 2.3 I/E expense

Including bank charges, I/E trade commission, tariff, sales tax, import VAT (value-added tax) and vehicle purchase tax for imported vehicle . It shall be calculated as below formula:

- (1) Bank charges=Free on board (FOB) × RMB exchange rate × Bank charges rate.
- (2) I/E trade commission=Cost insurance and freight (CIF)×RMB exchange rate× Foreign trade commission rate.
- (3) Tariff=Cost insurance and freight (CIF) ×RMB exchange rate× Imported tariff rate.
- (4) Payable sales tax = (Cost insurance and freight (CIF) ×RMB exchange rate + tariff) /
- (1- sales tax rate) × sales tax rate. Sale tax rate shall be calculated according to related regulation.
- (5) Import VAT = Composite value × VAT rate; Composite value = Tariff dutiable value + Tariff + Sales tax. Sales tax rate shall be calculated according to related regulation.

#### 2.4 Miscellaneous freight charges

The charges arising from purchasing, transportation, freight premium, storage, loading and unloading etc. for the imported materials/equipment transported from the port in China to the site warehouse or designated storage. It shall be calculated as below formula:

Miscellaneous freight charges = Free on board (FOB) × Freight charge rate. The freight charge rate shall be calculated according to related authorities.

#### 3. Expected profit

The profit that the importer expects to make.

Please note the list above shall not be deemed as exclusive. Please consult with local authorities and I/E company for detailed regulations. Considering the fees may vary from region to region, the cost calculation shall be determined after consultation with local authorities.

# IMPORT PRICE COMPONENTS FOR CHINESE BUILDING MATERIALS / EQUIPMENT

# Sample price breakdown (A)

This case is the imported product - a batch of FRP slides for use in water park projects.

The import price listed in the following table refers to the price of the product imported from Turkey to Shanghai, China.

(Price as at frist quarter of 2019)

		Item	Price RMB/a batch	Percentage %	Notes
1.	Import	cost	5,300,000.00	67.13%	Free on board(FOB)
	Import	expenses	1,279,420.00	16.20%	
	2.1 Inte	rnational freight	100,000.00	1.27%	Ocean freight of goods from the port (station) of the seller to the port (station) in China(varies with seasons and shipping companies)
	2.2 Fre	ight premium			Financial reimbursement for any loss under the liabilities which are covered in the insurance agreement.
		I/E expense	1,119,420.00	14.18%	
		2.3.1 Bank charges	8,100.00	0.10%	
2.	2.3	2.3.2 I/E Trade Commission	43,200.00	0.55%	
	2.5	2.3.3 Tariff	324,000.00	4.10%	
		2.3.4 Sales tax	-	-	N/A
		2.3.5 Import VAT	744,120.00	9.42%	
		cellaneous freight arges	60,000.00	0.76%	The charges arising from purchasing, transportation, freight premium, storage, loading and unloading etc. for the imported materials/equipment transported from the port in China to the site warehouse or designated storage.
3.		ed profit(20% of total of &2 above)	1,315,884.00	16.67%	
Import (from			7,895,304.00	100%	

# BEIJING LEEZA SOHO | THE EYE OF THE NIGHT SKY OF THE IMPERIAL CAPITAL

In the Lize Financial Business District in southwest Beijing, whenever night falls, there is a building that is particularly fascinating. Under the light setting, the shape of the outer wall lines is like the eye of the night sky, deep and rich in science and magic. It is the Leeza SOHO, which was named "the most anticipated building in the world in 2018" by the well-known architectural magazine "Dezeen".

The total construction area of the project is about 170,000 square meters. This commercial and office complex is jointly built by SOHO China and Zaha Hadid Architects. It is also one of the masterpieces of the famous architect Zaha Hadid.

Five years ago, this uniquely shaped and graceful building brought cost-control services to unprecedented challenges. As the design is new and original cost control is difficult, such as the world's tallest "twisting" atrium, as well as the curtain wall which are like petals, the pieces are different and the petals are connected. Although we are used accustomed to seeing various imperial capital buildings that attract the eye, our colleagues still can't resist the attraction of the eye of the night sky.

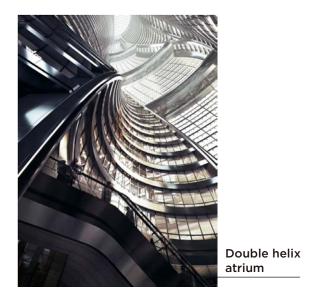
Five years later, the project is nearing completion. From the story of Beijing Leeza SOHO, we can see how the cost consultant can help the owner transform the avant-garde design concept into a landmark building.



eye of the night sky

#### How is the unique "eye of the night sky" formed?

The main structure is made up of two anti-symmetric streamlined twin towers connected by a large-span curved steel corridor. The overall shape is extremely complicated. It is a structural system consisting of two single towers and an elliptical waist truss with a cylindrical-unilateral curved frame.





Fish scale curtain wall and point curtain wall

The project "Coat" is staggered by about 4,300 seemingly identical but varied unit plates, cast into fish scales, and perfectly connected to the point-type glass curtain wall at the atrium, becoming the "Eye of the night sky of the Imperial Capital ".

#### The world's tallest "twisting" atrium

The interior wall of Leeza SOHO is the world's highest "twisting" atrium: it consists of a fire-resistant glass frame curtain wall and a curved aluminum plate ribbon. It spirals up from the first floor and combines the north and south towers of nearly 200 meters high double spiral streamlined cool space. The sun is comes down through the top of the roof, standing in the center of each floor, and the rotating atrium allows the viewer to bathe in the natural light and enjoy the scenery outside the window. Being in the atrium, whether looking up from a low place or overlooking from a height, it will be a visual feast.



#### RLB full of enthusiasm, professionalism and meticulous

As a global cost consultant, RLB has gained the trust of the owners in its many years of cooperation with SOHO China. The projects we have served include Beijing Guanghua Road SOHO2, Shanghai Fuxing Road SOHO, Hongkou SOHO and so on.

In 2014, RLB was honored to be entrusted by SOHO again to become a QS consultant for this difficult project, providing cost consulting services for the whole process, including early stage project estimation, tender bidding, construction and final account stages. Especially in the aspect of options comparison, RLB closely cooperated with the design philosophy of the master design, analyzing the technical economy of different options, conducting multiple rounds of research and detailed evaluation, and selecting the optimal cost-effective solution while maintaining the design style. Effectively carrying out cost control.

As it is a specially-shaped project, the three-dimensional graphics software "Rhino" has been used throughout the project. Through the tender bidding of the curtain wall project, colleagues have qualitative improvements in the identification of the irregular shaped project using the three-dimensional graphics software.

The magic of the 3D graphics software "Rhino" is to turn a plan into three-dimensions, so that everyone can "understand the drawing", so that the measurement and BQ preparation work becomes efficient and accurate. Especially in the measurement process, RLB colleagues mastered the operation skills of the 3D software, and co-operated with the designer to compare the area of the curtain wall calculated by the drawings and with the area extracted by the 3D software to ensure the accuracy of the quantities.

Faced with numerous and complicated detailed drawings and tight bidding time, we repeatedly carefully cleared the drawings to clarify the details of the drawings, to largely avoid any cost risks. The payout will eventually pay off, and the project team's meticulous work attitude has won the praise of the owners.

We are proud to participate in the construction of Leeza SOHO, and we are honored to be directly involved with RLB, pay tribute to the "masterpiece"! Thank you even more, RLB, with our excellent projects such as Leeza SOHO, our profession are worlds apart!

# WELL CERTIFICATION

#### **Executive Summary**

The WELL Building Standard (WELL) grew rapidly in the last two years. WELL leads the global movement to transform our buildings and communities to help deliver health and wellbeing for all.

By the end of 2018, there are 1409 WELL projects with 264 million square feet in 48 countries (142 no. WELL certified projects, and 1267 no. WELL registered projects).

We see ourselves as one of the leading Quantity Surveying (QS) firms to provide professional cost advice of WELL certification.

In order to provide the QS consultancy services of WELL, we have a WELL AP and have organized several training courses in our offices.

#### The value of WELL certification

In addition to WELL's meaningful ROI proposition, WELL certification helps increase the value of project and enhance the experience of building's occupants.

- For office building owners, WELL Certification can attract & retain high-quality tenants, maximize financial performance in terms of rental rates and resale value, minimize risk of incidents and obsolescence and improve stakeholders' relationship by increasing their GRESB scores for health and well-being. WELL also helps elevating the projects' competence in the market by promoting strategic differentiation.
- For residential project owners, WELL Certification can attract & retain residents, maximize rent potential and building resale value, differentiate their properties and promote optimal health + well-being for residents. WELL enhances living environment for residents from fundemental aspects and can help establish mutual trust between owners and residents within communities.
- For employers, WELL Certification can attract & retain high-quality employees, maximize employees' performance and productivity, reduce impacts of presenteeism and absenteeism and promote healthy working environments for employees.

All WELL projects can also benefit from publicity opportunities: IWBI (the organization leads WELL) may use project data to create case studies highlighting a project's features, reference a project on the website or to the media, or create other derivative works.

#### A special verified approach

#### **Professional standard:**

WELL has been vetted through a comprehensive, expert peer review process spanning scientific, practitioner and medical phases - and reflects up-to-date, verified knowledge in the health and wellness sector.

#### Performance verification:

The WELL differentiator is performance verification: a data-driven, on-site, third-party assessment of the project to ensure compliance with the standard.

#### **Recertification:**

Certification is valid for three years. To maintain certification, projects must meet requirements for recertification.

#### Annual Submissions:

In order to maintain status as a WELL Certified project prior to recertification, project teams must adhere to reporting requirements.

#### Advantage of RLB

The WELL Accredited Professional (WELL AP) credential is an advanced credential intended for experienced building professionals.

The WELL AP credential holder has demonstrated advanced knowledge and proficiency in building wellness and the principles, practices and applications of the WELL Building Standard."

We have the first QS in China with the qualification of WELL, MRICS and China Certified Cost Engineers. A team is prepared to provide the professional service of the relevant cost survey.

#### We are familiar with

- WELL Building Standard version 1: air, water, nourishment, light, fitness, comfort, mind.
- WELL Building Standard version 2: air, water, nourishment, light, movement, thermal comfort, sound, materials, mind, community.

(The registration process differs for projects depending on the version(WELL v1/ WELL v2) or program under which the project registers.)

We can provide a cost estimate targeting various project types, WELL certification levels, and the design plans.

• Project types:

Commercial buildings, office buildings, residential buildings, educational facilities, retail, restaurants, commercial kitchens, communities, recreational facilities, public assembly, healthcare, etc.

 Certification Levels: Silver/ Gold/ Platinum Certification.

# WELL CERTIFICATION

#### **WELL Projects Delivery**

#### **Ocean International Center**

Sino-Ocean Group reached a strategic cooperation agreement with Delos, the American company that founded WELL standard, and promised to fully promote the application and implementation of WELL standard in its own projects and the national real estate industry. As the landmark project of Sino-Ocean Group in Hangzhou, Ocean International Center will become the best representative of WELL building standard of Sino-Ocean Group.

Ocean International Center located in the grand canal CBD of Hangzhou, was completed in 2016 with a total construction floor area of 259,228m2, including commercial and office buildings. It has achieved both LEED and WELL gold certification.

Ocean International Center has become the first WELL certification project in Hangzhou, and sets new standards in urban development.

WELL Expenses:	Items	RMB
	<ul> <li>Facility inputs:</li> <li>a. Add electrostatic dust collectors to the VAV boxes of lobby</li> <li>b. Usage of low toxic insecticides c. Add filtration system in water supply system</li> <li>d. Set up brochures encouraging healthy eating e. Provide green roof</li> <li>f. Install fitness stairs g. Set outdoor benches h. Provide bicycle repair tools</li> <li>i. Set WeChat public account j. Provide 20 no. health related e-books.</li> </ul>	0.7m
	Registeration, certification, verification fee	0.58m
	Pre-test fee	0.45m
	Performance verification fee	0.35m
	Total:	2.08m



#### WELL Projects Delivery (Cont'd)

#### **EBA Center**

The EBA Center was awarded the precertification of WELL (gold) in March 2018, and is expected to complete its certification this year. Upon certification, R&D center of Dalian road will have the first WELL Being community.

This project is located in the prime location of "double innovation base" in Yangpu district, Shanghai. The project's total construction floor area is around 159,000m<sup>2</sup>. It is a commercial community including high-quality office buildings, single-family offices, five-star hotels, boutique businesses, sports parks and historical buildings. The project is designed to bring happiness, joy and well-being to everyone in the community from the inside out, and ultimately provide the industry with a model of WELL Being community.

Based on the notion of harmonious coexistence of people and buildings, all the design of EBA Center is carried out around "people", and "human care" and "improving the comfort and health needs of users", which are integrated into every detail of the project:

WELL certifica	ati	ion inputs:
Smell	I	PM2.5 filtration system
Taste	I	Fine drinking water system
Sound	I	Perforated aluminum honeycomb ceiling sound-absorbing system
Vision	I	Anti-glare luminaire
Intelligence	I	Face recognition system, intelligent vehicle navigation system



# AVERAGE WHOLESALE PRICES OF SELECTED BUILDING MATERIALS IN SELECTED CITIES OF CHINA (RMB) (All rates described are at 1st Quarter 2019)

Building materials		Beijing	Chengdu	Chongqing	Guangzhou	Hangzhou	Nanjing	Shanghai	Shenyang	Shenzhen	Tianjin	Wuhan	Xian
Reinforcement bar HPB235 (1st-class) 10mm	¥/t	4,171	4,557 HPB300 8-10mm	4,093 HPB300	3,992	4,445	4,343 HPB300	4,443 HPB300	3,333 HPB300	4,465 HPB300 (1st class ) 10mm	4,373	4,182 HPB300	4,090
Reinforcement bar HRB400 (3rd class) 10mm	¥/t	3,917	4,292 HRB400E 8-10mm	4,220	4,017	4,239	4,303	4,368	3,440	4,690	4,033	4,386	4,137
Reinforcement bar HRB400 (3rd class) 25mm	¥/t	3,606	4,091	4,253	4,076	4,081	4,221	4,208	3,343	4,408	3,972	4,131	4,140
Reinforced concrete Grade C30 5-25mm aggregates P8 waterproofing (without pumping fee)	¥/m³	476	616	482 Average of main areas of the city, electric pump	630	586	529	608	354	728	518	465	650
Timber Formwork local commonly used materials	¥/m³	2,000	3,384 1830×915×15	1,252 Average of main areas of the city, logs	1,338 pine broad	1,750 pine logs Φ 14-16 x 600cm	1,762	1,851	1,660	2,499 1830x915x18 3rd Class blackboard	2,250	2,203	2,042 pine logs
Portland cement Grade 42.5(bulk)	¥/t	500	557	542 Average of main areas of the city, bagged	493	560	565	567	349	601	453	494	495
Sand Rough/mixed	¥/t	102	131	170 Average of main areas of the city, extra fine sand	196	115 Gross sand	160	165	50	151	84	209	350
Hot rolled equal-leg angle steel 45-50×3-6mm	¥/t	3,773	4,477 Q235 L50×50×5	4,543 Q235 4-8mm	4,152	4,456 3#-4#	4,513	4,530	3,443	4,884	4,264	4,517	4,733
Galvanized steel sheet 1.0mm	¥/t	4,698	7,211 0.5-1.2mm	4,833	4,163	4,912	5,083	5,070 Hot rolled steel sheet Q235δ≥1.0	3,953 Cool rolled steel sheet 0.6-1.6	5,338	4,991	4,894	4,840
Seamless steel pipe 108×3.5-4mm	¥/t	4,276	7,037	5,303 108 x 4.5mm	5,023	5,830	5,303	5,566 108×3-4.5mm #20	4,473 68~159	6,110	5,194	4,726 108 × 4.5-5mm	5,443
Galvanized welded steel pipe 20mm 26.75x2.75mm	¥/t	5,388	6,335	5,633 Hot dip galvanized steel pipe Q235 / Q195 DN15-20	5,740 Galvanized water, gas transportation pipe	4,591	5,916	5,060 Φ 20 mm	3,533 DN25-DN32	6,097	5,655	5,600	5,730
Hot-rolled steel channel Grade a steel #16-18mm	¥/t	3,645	4,482 Q235 #18mm	4,467 Channel steel Q235 16-22#	4,200	4,456 8#-10#	4,543	4,297 Q235 #16	3,533 5~30#	4,933	3,990	4,517	4,637
Float plate glass 5mm	¥/m²	23	28 White float glass	27 s White float glass	30	38	40	30	30	39	33	33	30
Aluminum A00 aluminum ingot	¥/t						13,4	52					
Copper 1# electrolytic copper	¥/t						48,1	80					
Steel fire rate door (Grade II)	$\mathrm{W}/\mathrm{m}^2$	362	572(#)	520	374 Single-leaf	520	630 Single-leaf	704(#)	535	600(#)	530(#)	400(#)	720
Timber fire rated door (Grade II )	$\mathrm{W}/\mathrm{m}^2$	462	395(#)	320	433 Single-leaf	420	-	357	453(#)	680(#)	425(#)	380(#)	680
PHC piles Φ 400A	¥/m	-	135(#)	-	144 Thickness 95mm	150 Thickness 95mm	192	145(#) Thickness 95mm	97(#)	131 Thickness 95mm	145 Thickness 95mm	195(#)	200
APP Modified Bitumen Water- proofing membrane 3 mm PY	¥/m²	34	43(#)	28 APP-I-PY-PE-3mm	27	40 4mm	38	37(#)	28(#)	35(#) SBS 3mm	30(#)	27	46 Туре I
JS Cementious Waterproofing Coatings Type I two-component	¥/kg	10	21(#)	17 latex	12	8	11	15(#)	13(#)	13	14	15(#)	21
Interview would be the constant	¥/kg	16	15(#)	9 paint	11	17 latex paint	15 Interior wall paint	16(#)	11	11(#)	13	10	15(#)
Advanced Acrylic Exterior Wall Latex paint Type II	¥/kg	25	23(#)	30 import emulsion paint (luminant)	27	21 elastic emulsion paint	17 exterior Wall paint	24(#)	12	25(#)	26	33(#)	24

#### Notes:

1. The above prices (except items 14, 15 and those marked with "#") are based on either guiding price from websites or periodicals published by local construction cost management office; or market prices published by "China construction material online";

2. Items 14 & 15 in the above table are based on final price by end of month published by Shanghai Futures Exchange (www.shfe.com.cn), as a general reference price for all areas;

3. "#" means its price is based on the market prices;

4. "-" means local price is not available;

5. The price selection guideline is based on actual current market prices.

# AVERAGE DAILY WAGES OF WORKERS FOR CONSTRUCTION INDUSTRY IN SELECTED CITIES OF CHINA

(All rates described are at 1st Quarter 2019)

The currency below is RMB

(acc	Selected ccupations cording to the general lic standards)	Beijing	Chengdu	Chongqing	Guangzhou	Hangzhou	Nanjing	Shanghai	Shenyang	Shenzhen	Tianjin	Wuhan	Xian
1	Joiner (construction)	263	253	272	219	279	297	280	247	372 Decoration Joiner	203	220	290
2	Painter	254	186	242	212	252	278	300	218	280	183	160	228
3	Formwork erector	271	253	287	226	270	302	300	247	341	188	193	290
4	Plasterer (normal)	253	217	233	212	244	283	320	255	296	183	171	290
5	Bar Bender	267	245	271	223	255	288	300	255	299	178	189	290
6	Bricklayer (masonry)	261	222	233	212	277	279	320	211	315	180	188	297
7	E&M worker	252	157	232	204	251	283	300	189	284 Average plumber/ electrician	175	177	265
8	Concretor	241	180	238	197	239	264	300	145	305	164	165	288
9	Waterproofer	264	177	227	198	257	272	300	211	274	170	165	265
10	Plaster (Surface)	327	203	258	219	260	288	350	255	349	220	193	267
11	Scaffolder	281	239	277	213	279	289	350	255	334	184	192	327
12	Welder	283	194	237	212	290	293	350	251	305	175	202	265
13	Rigger	264	167	197	204	252	277	300	145	277	173	186	303
14	Glazier	341	156	218	201	250	268	320	218	275	119	160	288
Avera (1-14)	age daily wage	273	204	244	211	261	283	314	222	308	178	183	282

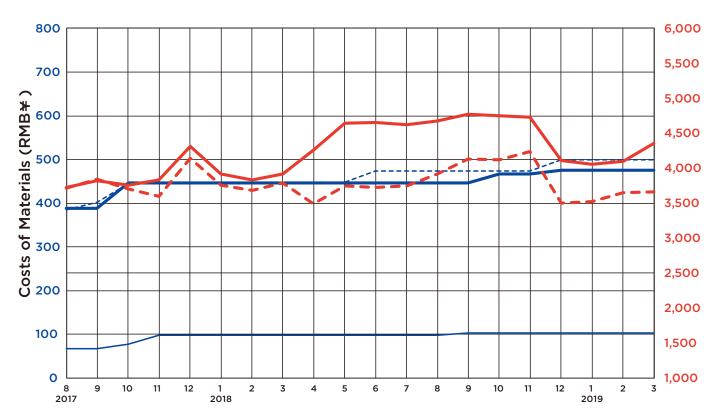
#### Notes:

1. Various types of daily wage are based on construction market price, which are updated in real time. The data covers commercial, residential and industrial development project; every rate is weighted daily rates received from 2-4 construction companies;

2. Labour costs include: basic wage, allowances, benefits, etc. i.e. all expense payable to workers;

3. Daily rate is based on 8 hours per day, excluding overtime allowance;

4. All trades are based on general labour.

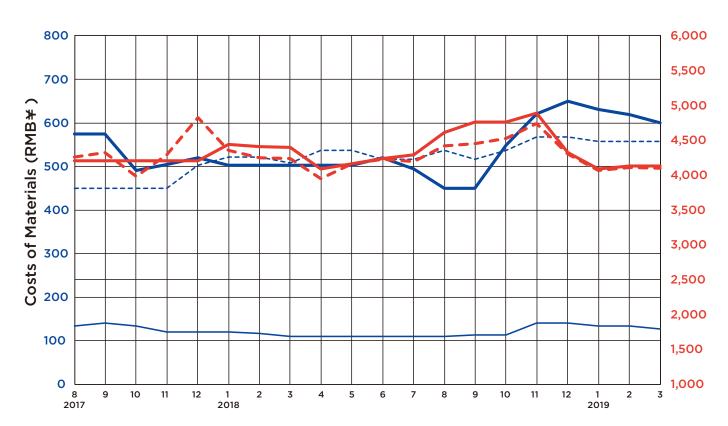


# Wholesale Prices of Selected Building Materials in Beijing

Month / Year

	Building Materials							Who	olesale	Price	s of Se	lected	l Build	ing Ma	aterial	s in Be	ijing					
Building Materi	als				2017								20	18							2019	
			Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Reinforcement bar HPB235 (I) 10mm	¥/t	—	3,726	3,821	3,761	3,829	4,316	3,915	3,829	3,915	4,256	4,638	4,655	4,621	4,672	4,767	4,750	4,728	4,108	4,056	4,099	4,358
Reinforcement bar HRB400 (III) 25mm	¥/t		3,718	3,838	3,701	3,598	4,137	3,752	3,684	3,786	3,487	3,750	3,724	3,750	3,922	4,130	4,116	4,233	3,500	3,517	3,647	3,655
Portland cement Grade 42.5 (bag)	¥/t		385	402	444	444	444	444	444	444	444	448	474	474	474	474	474	474	500	500	500	500
Reinforced concrete Grade C30 5-25 stone P8 waterproofing (without pumping fee)	¥/m³	—	388	388	447	447	447	447	447	447	447	447	447	447	447	447	466	466	476	476	476	476
Sand (rough/mixed)	¥/t	—	66	66	78	97	97	97	97	97	97	97	97	97	97	102	102	102	102	102	102	102

(Source: www.bjzj.net)

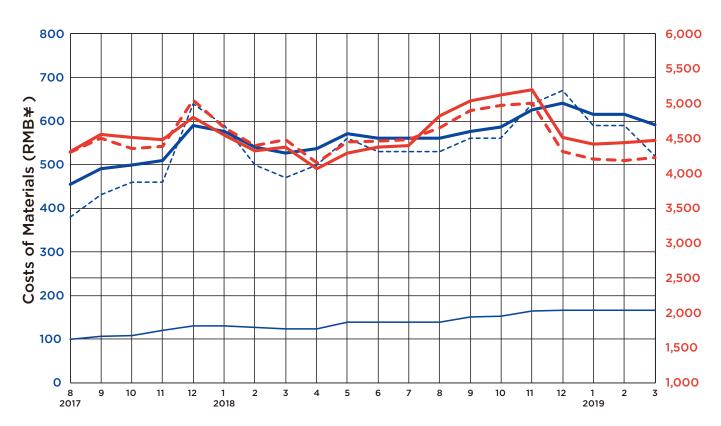


# Wholesale Prices of Selected Building Materials in Chengdu

Month / Year

	Building Materials							Wholesale Prices of Selected Building Materials in Chengdu														
Building Materi	als				2017								20	)18							2019	
			Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Reinforcement bar HPB235 (I) 10mm	¥/t	—	4,200	4,200	4,200	4,200	4,200	4,439	4,408	4,396	4,089	4,163	4,241	4,295	4,615	4,762	4,764	4,890	4,320	4,088	4,126	4,128
Reinforcement bar HRB400 (III) 25mm	¥/t		4,260	4,320	3,977	4,295	4,827	4,357	4,249	4,236	3,954	4,164	4,228	4,199	4,415	4,451	4,527	4,740	4,300	4,065	4,107	4,101
Portland cement Grade 42.5 (bag)	¥/t		450	450	450	450	502	522	522	507	537	537	517	517	537	517	537	567	567	557	557	557
Reinforced concrete Grade C30 5-25 stone P8 waterproofing (without pumping fee)	¥/m³	—	575	575	490	505	520	502	502	502	502	502	520	494	450	450	548	620	650	630	618	600
Sand (rough/mixed)	¥/t	—	133	140	133	120	120	120	117	110	110	110	110	110	110	113	113	140	140	133	133	127

(Source: www.sceci.net)

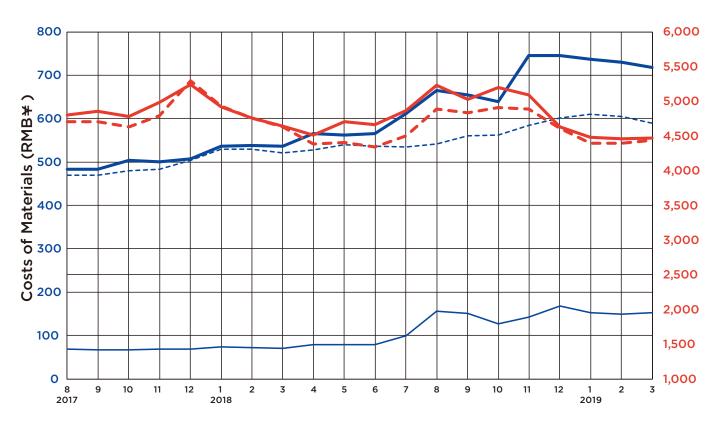


# Wholesale Prices of Selected Building Materials in Shanghai

Month / Year

	Building Materials							Wholesale Prices of Selected Building Materials in Shanghai														
Building Materi	als				2017								20	18							2019	
			Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Reinforcement bar HPB235 (I) 10mm	¥/t	—	4,310	4,560	4,510	4,480	4,800	4,550	4,320	4,380	4,070	4,290	4,380	4,400	4,820	5,040	5,120	5,200	4,520	4,420	4,435	4,475
Reinforcement bar HRB400 (III) 25mm	¥/t		4,300	4,500	4,350	4,390	5,050	4,650	4,400	4,480	4,150	4,450	4,460	4,480	4,650	4,900	4,970	5,010	4,310	4,210	4,185	4,230
Portland cement Grade 42.5 (bag)	¥/t		380	430	460	460	640	590	500	470	500	560	530	530	530	560	560	640	670	590	590	520
Reinforced concrete Grade C30 5-25 stone P8 waterproofing (without pumping fee)	¥/m³	—	455	490	500	510	590	576	541	526	536	571	561	561	561	576	586	626	641	616	616	591
Sand (rough/mixed)	¥/t	—	99	106	108	120	130	130	126	123	123	139	139	139	139	150	152	164	165	165	165	165

(Source: www.shjjw.gov.cn)



# Wholesale Prices of Selected Building Materials in Shenzhen

Month / Year

	Building Materials							Whol	esale F	Prices (	of Sele	ected I	Buildin	ig Mat	erials i	n Shei	nzhen					
Building Materi	als				2017								20	18							2019	
			Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Reinforcement bar HPB235 (I) 10mm	¥/t	—	4,800	4,850	4,780	4,983	5,241	4,915	4,754	4,638	4,517	4,703	4,663	4,861	5,226	5,021	5,202	5,091	4,630	4,475	4,456	4,465
Reinforcement bar HRB400 (III) 25mm	¥/t		4,700	4,700	4,630	4,793	5,292	4,932	4,756	4,628	4,379	4,402	4,342	4,502	4,890	4,828	4,913	4,886	4,607	4,395	4,391	4,439
Portland cement Grade 42.5 (bag)	¥/t		470	470	480	483	503	530	530	521	528	539	537	534	541	561	562	585	602	609	605	589
Reinforced concrete Grade C30 5-25 stone P8 waterproofing (without pumping fee)	¥/m³	—	483	483	504	500	507	536	537	536	565	562	565	612	665	654	639	745	745	737	729	718
Sand (rough/mixed)	¥/t	—	68	66	67	69	68	73	72	71	79	79	79	99	156	151	128	143	168	153	149	152

(Source: www.szcost.cn)

# OFFICES IN HONG KONG, MACAU, MAINLAND CHINA AND KOREA

## HONG KONG

15<sup>th</sup> Floor Goldin Financial Global Centre, 17 Kai Cheung Road, Kowloon Bay, Hong Kong Telephone: 852 2823 1823 Facsimile: 852 2861 1283 E-mail: hongkong@hk.rlb.com

#### MACAU

Alameda Dr. Carlos D' Assumpção No. 398 Edificio CNAC 9º Andar I-J Macau SAR Telephone: 853 2875 3088 Facsimile: 853 2875 3308 E-mail: macau@mo.rlb.com

#### BEIJING

Room 1803-1809, 18<sup>th</sup> Floor East Ocean Centre 24A Jian Guo Men Wai Avenue Chaoyang District Beijing 100004 China Telephone: 86 10 6515 5818 Facsimile: 86 10 6515 5819 E-mail: beijing@cn.rlb.com

### CHENGDU

Room 2901-2904, 29<sup>th</sup> Floor Square One 18 Dongyu Street Jinjiang District Chengdu 610016 Sichuan Province China Telephone: 86 28 8670 3382 Facsimile: 86 28 8613 6160 E-mail: chengdu@cn.rlb.com

#### CHONGQING

Room 1-3 & 17-18, 39/F, IFS Tower T1, No. 1 Qingyun Road, Jiangbei District, Chongqing 400024, China Telephone: 86 23 6380 6628 Facsimile: 86 23 6380 6618 E-mail: chongqing@cn.rlb.com

# DALIAN

Room 1103 Xiwang Tower 136 Zhongshan Road Zhongshan District Dalian 116001 Liaoning Province China Telephone: 86 411 3973 7778 Facsimile: 86 411 3973 7779 E-mail: dalian@cn.rlb.com

# **GUANGZHOU**

Room 1302-1308 Central Tower 5 Xiancun Road Guangzhou 510623 **Guangdong Province** China Telephone: 86 20 8732 1801 Facsimile: 86 20 8732 1803

### **GUIYANG**

Room E. 12<sup>th</sup> Floor Fuzhong International Plaza 126 Xin Hua Road Guiyang 550002 Guizhou Province China Telephone: 86 851 553 3818 Facsimile: 86 851 553 3618 E-mail: guiyang@cn.rlb.com

#### HAIKOU

Room 1708, 17<sup>th</sup> Floor Fortune Centre 38 Da Tong Road Haikou 570102 Hainan Province China Telephone: 86 898 6672 6638 Facsimile: 86 898 6672 1618 E-mail: haikou@cn.rlb.com

### HANGZHOU

Room 1603, 16<sup>th</sup> Floor North Tower, Modern City Centre, No. 161 Shao Xin Road, Xia Cheng District Hangzhou 310014 Zhejiang Province China Telephone: 86 571 8539 3028 Facsimile: 86 571 8539 3708 E-mail: hangzhou@cn.rlb.com

#### NANJING

Room 1201, South Tower Jinmao Plaza 201 Zhong Yang Road Nanjing 210009 Jiangsu Province China Telephone: 86 25 8678 0300 Facsimile: 86 25 8678 0500 E-mail: nanjing@cn.rlb.com

#### NANNING

Room 2203. Block B. Resources Building, No. 136 Minzu Road Nanning 530000 Guangxi Province China Telephone: 86 771 589 6101 E-mail: nanning@cn.rlb.com

### **SHANGHAI**

22<sup>td</sup> Floor Greantech tower 436 Hengfeng Road Jingan District, Shanghai 200070 China Telephone: 86 21 6330 1999 Facsimile: 86 21 6330 2012 E-mail : guangzhou@cn.rlb.com E-mail: shanghai@cn.rlb.com

# SHENYANG

25<sup>th</sup> Floor Tower A, President Building No. 69 Heping North Avenue Heping District Shenyang 110003 Liaoning Province China Telephone: 86 24 2396 5516 Facsimile: 86 24 2396 5515 E-mail: shenyang@cn.rlb.com

## **SHENZHEN**

Room 4510-4513, Shun Hing Square Diwang Comm. Centre 5002 Shennan Road East Shenzhen 518001 **Guangdong Province** China Telephone: 86 755 8246 0959 Facsimile: 86 755 8246 0638 E-mail: shenzhen@cn.rlb.com

### TIANJIN

Room 502, 5<sup>th</sup> Floor Tianjin International Building 75 Nanjing Road Heping District Tianjin 300050 China Telephone: 86 22 2339 6632 Facsimile: 86 22 2339 6639 E-mail: tianjin@cn.rlb.com

# WUHAN

Room 2301 New World International Trade Centre No. 568 Jianshe Avenue Wuhan 430022 Hubei Province China Telephone: 86 27 6885 0986 Facsimile: 86 27 6885 0987 E-mail: wuhan@cn.rlb.com

# WUXI

Room 1410-1412, 14<sup>th</sup> Floor Juna Plaza 6 Yonghe Road Nangchang District Wuxi 214000 Jiangsu Province China Telephone: 86 510 8274 0266 Eacsimile: 86 510 8274 0603 E-mail: wuxi@cn.rlb.com

#### XIAMEN (Project Office)

Room 2216, 22<sup>th</sup> Floor The Bank Centre 189 Xiahe Road Xiamen 361000 Fujian Province China Telephone: 86 592 2205 201 Facsimile: 86 592 2915 365 E-mail: xiamen@cn.rlb.com

#### XIAN

Room 1506, 15<sup>th</sup> Floor, Tower F Chang'an Metropolis Center 88 Nanguan Zheng Street, Beilin District, Xian 710068, Shanxi Province China Telephone: 86 29 8833 7433 Facsimile: 86 29 8833 7438 E-mail: xian@cn.rlb.com

#### ZHUHAI

Room 1401-1402, 14<sup>th</sup> Floor Taifook International Finance Building No. 1199 Jiu Zhuo Road East, Jida Zhuhai 519015, **Guangdong Province** China Telephone: 86 756 388 9010 Facsimile: 86 756 388 9169 E-mail: zhuhai@cn.rlb.com

### SEOUL

Yeoksam-dong, Yeji Building 3<sup>rd</sup> Floor, 513, Non hyeon-Ro Gangnam-Gu Seoul 135-880 Korea Telephone: 82 2 582 2834 Facsimile: 82 2 563 5752 E-mail: seoul@kr.rlb.com

#### JEJU (Project Office)

1084, Seogwang-ri, Andeok-myeon, Seogwipo-si Jeju-do, Korea Telephone: 82 64 792 8991 Facsimile: 82 64 792 8995

