## OFFICES AROUND THE WORLD

### AFRICA
- Botswana
  - Gaborone
- Mauritius
  - Quatre Bornes
- Mozambique
  - Maputo
- South Africa
  - Cape Town
  - Durban
  - Johannesburg
  - Pretoria
  - Stellenbosch

### ASIA
#### North Asia
- Beijing
- Chengdu
- Chongqing
- Guangzhou
- Guiyang
- Haikou
- Hangzhou
- Hong Kong
- Macau
- Nanjing
- Nanning
- Seoul
- Shanghai
- Shenyang
- Shenzhen
- Tianjin
- Wuhan
- Wuxi
- Xian
- Zhuhai

#### South Asia
- Bacolod
- Bohol
- Cagayan de Oro
- Cebu
- Clark
- Davao
- Ho Chi Minh City
- Iloilo
- Jakarta
- Kuala Lumpur
- Laguna
- Metro Manila
- Singapore
- Subic
- Yangon

### AMERICAS
#### Caribbean
- St. Lucia

#### North America
- Boston
- Calgary
- Chicago
- Denver
- Hilo
- Honolulu
- Kansas City
- Las Vegas
- Los Angeles
- Maui
- New York
- 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

### RLB | Euro Alliance
- Austria
- Belgium
- Bulgaria
- Croatia
- Czech Republic
- Denmark
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Luxembourg
- Montenegro
- Netherlands
- Norway
- Poland
- Portugal
- Romania
- 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
WESTERN CHINA, THE DESIRABLE FUTURE

The New Land and Marine Routes for Western Regions is being deployed at full speed, linking the new economic agglomeration model in the west.

With the announcement of the "Master Plan for New Land and Marine Routes for Western Regions" issued by the National Development and Reform Commission in August 2019, the construction of the new land and marine routes in the west will be promoted, linking the "One-Belt-One-Road" to Chongqing, Sichuan, Guizhou, Yunnan, Shaanxi and other western provinces to form new strategic infrastructure for the development of the western region.

The new government policy will highlight the geographical advantages of important hub cities, Chongqing and Chengdu. It also covers important western cities such as Guiyang and Kunming, extending to Xi'an and Lanzhou, bringing new economic growth stimulus to the west.

According to the "Statistical Communiqué of PRC on the 2019 National Economic and Social Development" released by the National Bureau of Statistics, the GDP of the western region was RMB20.5185 trillion yuan, an increase of 6.7%, accounting for about 21% of the total GDP of the country; The real estate investment was RMB3.0186 trillion yuan, an increase of 16.1% (higher than the national average growth of 9.9%), accounting for about 23% of the national real estate investment.

The entire western region has a vast territory, with a land area of 6.78 million square kilometers, accounting for 70% of the total area of the country and a population of about 380 million, accounting for 27% of the total population of the country.

From the analysis of various aspects including the land area, population density, GDP, real estate investment growth rate in the western region and the inclination of central government policy, the economy of the western region has great development potential.
COST OBSERVATION OF CURTAIN WALL CONSTRUCTION IN CHINA

With the development of China’s economy, people start to have higher expectation for quality of life and work life. There are more and more super high-rise office buildings and apartment/residential buildings in major cities. Greater emphasis is placed on the quality of facade and its performance in insulation and energy conservation for these high-rise buildings. The components of building facade has evolved from traditional system of solid wall with tiling finishes, doors and windows to curtain wall system with unitized installation.

RLB has participated in many iconic projects using curtain wall systems, such as Shanghai Tower, Shenzhen Ping An Financial Center, Guangzhou Chow Tai Fook Financial Center, Chongqing Raffles City, etc., and has accumulated experience and cost data in all aspects of the curtain wall system.

Since the curtain wall is always a cost driver in the overall project costs, special attention should be paid to the following points when preparing budget/cost estimate:

- The design and the choice of material (e.g. imported materials, extra-large size components, etc.);
- The local climatic conditions of the project (such as sunlight, maximum wind force and wind pressure, average temperature and its pattern in each season, etc.);
- The construction/installation method, such as unitized curtain wall, etc.;
- The impact of national and local regulations & practice notes on the external walls design (such as curtain wall structure safety assessment, environmental impact/light pollution assessment, green building & energy conservation, fire safety requirements, etc.);
- Client’s requirements (such as indoor railing, indoor ventilation, centralized control blinds, etc.).
COST OBSERVATION OF CURTAIN WALL CONSTRUCTION IN CHINA

As government regulations and developers continue to improve their requirements on energy-saving, sound insulation and safety of buildings, through "green building star rating", "LEED energy-saving rating" and "WELL", glass curtain walls are required to achieve better UV light blocking rate, higher permeability, better security, etc., so as to enhance sunshading, energy saving, ventilation and sound insulation performance.

The performance of the glass material for curtain wall has improved comprehensively, evolving from the double glazed coated tempered glass to the double glazed Low-E (single silver film) coated tempered glass. The ultra-white double glazed laminated Low-E (double-silver / triple-silver film) coating is extensively used by more and more super high-rise projects.
The development of BIM (Building Information Modeling) system brings convenience to design, manufacture, processing and construction of building curtain walls, so that the design of more special-shaped, curved, and multi-angle curtain walls can be better achieved.

RLB is actively participating in the application and promotion of BIM technology. Through the research and application of new technologies, new materials, new processes and new software in the construction and curtain wall industries, RLB is constantly improving the refinement of cost management and the accuracy of cost estimation.

### COST OBSERVATION OF CURTAIN WALL CONSTRUCTION IN CHINA

The energy-saving coefficient U-value of the glass panel has also been improved from the early 2.5 ~ 2.8W / (m²·k) to the current stage of 1.3 ~ 1.4W / (m²·k), providing better solutions for green and environmental friendly buildings.

<table>
<thead>
<tr>
<th>Brief description of the glass energy-saving configuration</th>
<th>Description of the process involved</th>
<th>Unit rate of process/product RMB/m²</th>
<th>U-value (theoretical calculation) W/(m²·k)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard double glazed</td>
<td>12mm standard double glazed</td>
<td>45</td>
<td>2.5-2.6</td>
</tr>
<tr>
<td>Single silver Low-E double glazed</td>
<td>Single silver Low-E coating +12mm standard double glazed</td>
<td>75-80</td>
<td>1.8-1.85</td>
</tr>
<tr>
<td>Single silver Low-E double (warm edge technology) glazed</td>
<td>Single silver Low-E coating +12mm composite material double glazed</td>
<td>95-100</td>
<td>1.65-1.7</td>
</tr>
<tr>
<td>Double silver Low-E doubled glazed</td>
<td>Double silver Low-E coating +12mm standard double glazed</td>
<td>105-110</td>
<td>1.6-1.65</td>
</tr>
<tr>
<td>Double silver Low-E hollow (warm edge technology) glass</td>
<td>Double silver Low-E coating +12mm composite material double glazed</td>
<td>125-130</td>
<td>1.4-1.45</td>
</tr>
<tr>
<td>Triple silver Low-E double glazed</td>
<td>Triple silver Low-E coating +12mm standard double glazed</td>
<td>135-145</td>
<td>1.55-1.6 (Better sunshade efficiency than double silver)</td>
</tr>
<tr>
<td>Triple silver Low-E double (warm edge technology) glazed</td>
<td>Triple silver Low-E coating +12mm composite material double glazed</td>
<td>155-165</td>
<td>1.35-1.4 (Better sunshade efficiency than double silver)</td>
</tr>
</tbody>
</table>

Note: The above table is for extra cost of processing in China, the prices in the table above do not include the material cost for glass.
When being asked of how a building be constructed, people may have the below in their minds:

*Within enclosed construction site, the building under construction would be covered with green nets and there are many scaffolding on the external wall. Firstly, the foundations would be built, then the construction would be commenced from bottom to roof, floor by floor...*

In fact, there is another method to construct a building now—not all processes are required to be completed on site. Many building components, such as floor slabs, stairs, columns and beams, can be produced in advance in the factory, and then assembled at the site like toy blocks. Of course, constructing a building is more complex and rigorous than toy blocks. For example, concrete will be placed during assembly of components to ensure a stable and safe structure.

This construction method is called prefabricated construction. As the name implies, it is to assemble prefabricated components into a whole building. Compared with traditional methods, prefabricated buildings would improve efficiency, shorten the construction period, and are environmental friendly, etc.

Prefabricated construction is a key national strategy for the reform and improvements of construction industry. It is also driving up and refreshing the construction market.

According to the requirements of the Ministry of Housing and Urban-Rural Development, the goal of the policy is to adopt prefabricated construction in more than 15% of the new buildings in the whole country by 2020. The three major urban agglomerations (the Beijing-Tianjing-Hebei region, the Yangtze River Delta and the Pearl River Delta) as the regions with developing prefabricated buildings as key tasks, target to achieve more than 20% of building areas with prefabrication; for other cities with residential population of over three million where prefabricated building development shall be actively advanced, the target is to achieve more than 15%; for the remaining cities where such development is encouraged, the target is to achieve more than 10% of building areas with prefabrication.
1. Introduction of Prefabricated Buildings

Prefabricated buildings: the main parts of structural systems, external envelope, equipment and pipelines, and interiors are constructed with prefabricated parts and components.

Prefabricated concrete structure: The structural system of the building is prefabricated with precast concrete structure or "PC" (prefabricated modules).

- Common PC component styles:

- PC shear wall panel
- PC enclosure wall panel
- PC bay window panel
- PC balcony panels
- PC air conditioner platform
Common precast door and window embedded parts:

- Embedded plates and bolt point only
- Embedded steel subframe
- Door and window frames completely embedded

Two important terms are:

- **Building prefabricated rate**: the ratio of the amount of material used in the prefabricated components of the structure and envelope to the total amount of material used of the corresponding component in the prefabricated building above ± 0.000.

- **Building assembly rate**: the ratio of the number (or area) of prefabricated components and building parts in a prefabricated building to the total number (or area) of similar components or parts.

For example, Shanghai stipulates that for newly built residential buildings with a building height more than 100 meters, the prefabricated rate shall be no less than 15% or the assembly rate shall be no less than 35%.
PREFabricated CONSTRUCTION

2. Cost analysis of prefabricated buildings

<table>
<thead>
<tr>
<th>A project in Pudong area, Shanghai</th>
<th>Unit rate reference for the costs of prefabricated components (unit: RMB/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material cost</td>
<td>3,200-3,500</td>
</tr>
<tr>
<td>Labor cost</td>
<td>300-350</td>
</tr>
<tr>
<td>Preliminaries</td>
<td>150-200</td>
</tr>
<tr>
<td>Management fees, profit</td>
<td>70-120</td>
</tr>
<tr>
<td>Regulation fee and tax</td>
<td>560-630</td>
</tr>
<tr>
<td>Total cost</td>
<td>4,280-4,800</td>
</tr>
</tbody>
</table>

3. Documentation for PC project

With different level of detail in tender drawings, there are different options of drafting the Bills of Quantities items. However, the aim is to ensure the integrity of unit rates incorporating all available information and tender drawings. The following illustrate two project case studies:

- Project A

Construction drawings are available at the time of tendering; the installation details, methods, production and inspection, requirements for transportation, stacking and assembly construction, connection requirements between components and cast-in-place structures, sleeve grouting operation requirements for steel bar connection, waterproofing design for prefabricated components, quality assurance and construction safety are all described and detailed in drawings.

- Bills Of Quantities:

1. Use provisional quantities for the Bills of Quantities and unit rates to be based on a lump sum basis;

2. The items of each prefabricated component in the Bills of Quantities shall be described in concrete cubic meters according to the different prefabricated components, and the provisional quantity for the project shall be measured based on the drawings;

3. The design, production, transportation, storage, secondary handling and installation, concrete, steel bars, accessories, grouting, conduits, waterproof silica gel, embedded parts, support, etc. of all prefabricated components are to be included in the corresponding unit price. The Tenderer’s unit price is to include all costs involved in completing works on the drawings;

4. Rate adjustment of prefabricated components: if the price increase of materials exceeds ±5%, adjustment is required;

5. The rebar is priced based on the published cost information on government website, and the difference in quantity is adjusted based on the actual construction drawings.
PREFABRICATED CONSTRUCTION

- Project B

Only schematic drawings and brief descriptions of the installation method, production, inspection, transportation requirements, and hoisting requirements of the prefabricated components are available. The connection details, rebar drawings, waterproofing details, etc. are not available.

- Schedule of Rates:

1. Use schedule of rates on a lump sum basis;
2. Select the appropriate prefabricated items from the project database as the basic items, and list the corresponding prefabricated components, design drawings, production, transportation, storage, secondary handling and installation, concrete, steel, auxiliary materials, grouting, sleeve, waterproof silicone, embedded parts, support, etc. as the basis for unit rate composition;
3. At Final Account stage, the unit rate is adjusted and compared with the details of the construction drawing;
4. The rebar adjustment is as Project A;
5. General notes for Schedule of Rates shall be provided.

The unit price of assembled components is comparatively expensive and the items in the pricing documents are more comprehensive. In order to avoid claims arising due to unclear descriptions, when drafting the pricing document, the following shall be paid attention to:

1. Clarify with the Design Team the prefabrication rate, type of prefabricated component, installation method, connection detail between components, waterproofing detail, surface finishes, door and window opening details, thermal insulation installation method, etc. The description of components in the pricing document should be as close as possible to the form used in actual construction to ensure that the pricing are comprehensive and complete;
2. Clarify with the Client and Design Team about mechanical and electrical pipes and cables in prefabricated components;
3. Clarify the external insulation system with the Client and Design Team;
4. It is recommended that the Client and the Design Team should use embedded steel subframes in external wall to ensure better waterproof performance of the doors and windows.
### 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"; or market prices published by Shanghai Futures Exchange (www.shfe.com.cn), as a general reference price for all areas; *"#" means its price is based on the market prices; *"*" means local price is not available; *The price selection guideline is based on actual current market prices; *The price is at January 2020, Wuhan.

---

**AVERAGE WHOLESALE PRICES OF SELECTED BUILDING MATERIALS IN SELECTED CITIES OF CHINA (RMB)**

(All rates described are at 1st Quarter 2020 Prices)

| Building materials | Beijing | Chengdu | Chongqing | Guangzhou | Hangzhou | Nanjing | Shanghai | Shenyang | Shenzhen | Tianjin | Wuhan* | Xian |
|---------------------|----------|---------|-----------|------------|----------|---------|----------|----------|----------|---------|---------|
| 1. Reinforcement bar HRB235 (1st-class) 10mm | Y/t | 4,261 | 3,498 | HPB300 | 4,212 | 4,311 | HPB300 | 4,093 | HPB300 | 3,217 | HPB300 | 4,258 | HPB300 (1st class ) 6.5-10mm | 4,183 | 4,080 | HPB300 | 3,840 |
| 2. Reinforcement bar HRB400 (3rd class) 10mm | Y/t | 3,973 | 3,568 | HRB400Ø 8-10mm | 3,997 | 3,827 | 4,026 | 4,253 | 4,153 | 3,377 | 4,615 | 3,989 | 4,233 | 3,893 |
| 3. Reinforcement bar HRB400 (3rd class) 25mm | Y/t | 3,770 | 3,483 | HRB400Ø 14-20mm | 3,957 | 3,875 | 3,881 | 3,471 | 3,993 | 3,267 | 4,336 | 3,880 | 3,978 | 3,893 |
| 4. Reinforced concrete Grade C30 5-20mm aggregates 150mm waterproofing (without pumping fee) | Y/m³ | 508 | 553 | 5-31.5 | 500 | Average of main areas of the city, electric pump | 670 | 646 | 597 | 681 | 337 | 704 | 506 | 523 | 655 |
| 5. Timber Formwork local commonly used materials | Y/m³ | 2,000 | 3,165 | 830 x 915 x 15 | 1,226 | Average of main areas of the city, logs | 1,348 | pine broad; 14-16 x 600cm | 1,795 | 1,851 | 1,723 | 2,511 | 1,950x195x19 | 3rd Class blackboard | 2,228 | 2,203 | 2,052 |
| 6. Portland cement Grade 42.5(bulk) | Y/t | 502 | 476 | 527 | Average of main areas of the city, bagged | 546 | 620 | 592 | 577 | 343 | 621 | 455 | 494 | 502 |
| 7. Sand Rough/mixed | Y/t | 102 | 129 | 275 | Average of main areas of the city, extra fine sand | 208 | 135 | Gross sand | 198 | 191 | 52 | 153 | 86 | 271 | 278 |
| 8. Hot rolled equal-leg angle steel 45-50×3-6mm | Y/m² | 5,283 | 3,681 | Q235 | 4-8mm | 4,217 | Q235B | 4,294 | Q235B | 4,314 | Equal-leg angle steel | 4,397 | Equal-leg angle steel 45-50 x 3-5mm | 5,253 | 4,647 | Angle steel | 4,038 | 4,279 | 4,223 |
| 10. Seamless steel pipe 108×4.5-6mm | Y/t | 4,732 | 6,100 | 4,863 | 428 x 4.5mm | 4,834 | 5,510 | 108x4.66mm | 5,159 | 5,146 | 108x 3-4.5mm | 4,173 | 681 | 5,723 | Seamless steel pipe | 4,747 | 4,539 | 4,596 | 5,497 |
| 11. Galvanized welded steel pipe 20mm | Y/t | 4,552 | 5,094 | 5.460 | Hot dip galvanized steel pipe Q235 | Q195 DIN162-20 | 5,542 | Galvanized water, gas transportation pipe | 5,674 | 5,771 | Hot dip galvanized steel pipe DN32 | 4,915 | Ø 20 | 3,583 | DN25-DN152 | 5,789 | Hot-galvanized steel pipe | 4,498 | 4,396 | 20+2.75mm | 5,220 |
| 12. Hot-rolled steel channel Grade a steel 16#-18# | Y/t | 3,488 | 2,793 | Q235 | 4-8mm | 4,215 | Q235B | 4,263 | Q235B | 4,425 | Steel channel | 4,040 | G235 # 16 | 3,327 | 5-30# | 4,671 | Steel channel | 3,996 | 4,228 | 4,207 |
| 13. Float glass 5mm | Y/m² | 23 | 24 | White float glass | 27 | White float glass | 34 | 37 | 39 | 28 | 30 | 33 | 33 | 33 | 35 |
| 14. Aluminium Y/t | 13,653 | 13,653 |
| 15. Copper Y/t | 41,950 | 41,950 |
| 16. Steel fire-rated door (Grade I) | Y/m² | 412($) | 550($) | 520 | Single-leaf | 620 | Single-leaf | 560 | 600($) | 564($) | 595($) | 637 |
| 17. Timber fire-rated door (Grade II) | Y/m² | 410($) | 380($) | 320 | Single-leaf | 420 | Single-leaf | - | 357 | 398($) | 680($) | 425($) | 504($) | 377 |
| 18. PVC pipes Ø 40-50 | Y/m | - | 165($) | - | 156 | Thickness 95mm | 142 | Thickness 95mm | 203 | 83 | Ø 400AB Thickness 95 | 101($) | 139 | Thickness 95 mm | 164 | Ø 400AB Thickness 95 | 195($) | 240 |
| 19. APP Modified Bitumen Waterproofing membrane 5mm PV | Y/m² | 35 | 38($) | 24 | APP-1-PY-PE-3mm | 27 | 36 | 4mm | 37 | 27 | APP-1-PY-PE | 23($) | 56($) | SBS 5mm | 25($) | 27 | 32 |
| 20. Cementitious Waterproofing Coatings Type I two-component | Y/kg | 11 | 18($) | 16 | JS-I latex | 12 | 8 | 11 | JS-I | 8($) | 11 | 17($) | 10 |
| 21. Interior wall Latex paint Type II | Y/kg | 16 | 15($) | 19 | paint | 11 | 17 | Latex paint | 13 | 16($) | 11 | 11($) | 12 | 10 | 13($) |
| 22. Advanced Acrylic Exterior Wall Latex paint Type II | Y/kg | 25 | 23($) | 28 | import emulsion paint (turban) | 27 | 21 | elastic emulsion paint | 16 | 24($) | 12 | 25($) | 26 | 33($) | 16($) |
# Average Daily Wages of Workers for Construction Industry in Selected Cities of China (RMB)
(All rates described are at 1st Quarter 2020 Prices)

**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. The rate is based on the weighted daily rates received from 2-4 contractors;
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.

<table>
<thead>
<tr>
<th>Selected Trades (according to the general public standards)</th>
<th>Beijing</th>
<th>Chengdu</th>
<th>Chongqing</th>
<th>Guangzhou</th>
<th>Hangzhou</th>
<th>Nanjing</th>
<th>Shanghai</th>
<th>Shenyang</th>
<th>Shenzhen</th>
<th>Tianjin</th>
<th>Wuhan</th>
<th>Xian</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Joiner (construction)</td>
<td>290</td>
<td>266</td>
<td>274</td>
<td>279</td>
<td>264</td>
<td>310</td>
<td>280</td>
<td>287</td>
<td></td>
<td>380</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Painter</td>
<td>267</td>
<td>196</td>
<td>244</td>
<td>268</td>
<td>240</td>
<td>288</td>
<td>300</td>
<td>248</td>
<td>329</td>
<td>248</td>
<td>182</td>
<td>250</td>
</tr>
<tr>
<td>3 Formwork erector</td>
<td>289</td>
<td>266</td>
<td>289</td>
<td>283</td>
<td>259</td>
<td>310</td>
<td>280</td>
<td>287</td>
<td>367</td>
<td>291</td>
<td>227</td>
<td>310</td>
</tr>
<tr>
<td>4 Plasterer (normal)</td>
<td>269</td>
<td>230</td>
<td>235</td>
<td>265</td>
<td>231</td>
<td>292</td>
<td>300</td>
<td>275</td>
<td>338</td>
<td>264</td>
<td>187</td>
<td>253</td>
</tr>
<tr>
<td>5 Bar Bender</td>
<td>269</td>
<td>258</td>
<td>273</td>
<td>279</td>
<td>244</td>
<td>295</td>
<td>280</td>
<td>239</td>
<td>353</td>
<td>293</td>
<td>191</td>
<td>350</td>
</tr>
<tr>
<td>6 Bricklayer (masonry)</td>
<td>278</td>
<td>237</td>
<td>235</td>
<td>268</td>
<td>265</td>
<td>288</td>
<td>320</td>
<td>268</td>
<td>344</td>
<td>282</td>
<td>210</td>
<td>300</td>
</tr>
<tr>
<td>7 E&amp;M worker</td>
<td>246</td>
<td>165</td>
<td>233</td>
<td>265</td>
<td>231</td>
<td>295</td>
<td>300</td>
<td>236</td>
<td></td>
<td>289</td>
<td>190</td>
<td>240</td>
</tr>
<tr>
<td>8 Concretor</td>
<td>248</td>
<td>190</td>
<td>240</td>
<td>254</td>
<td>225</td>
<td>281</td>
<td>280</td>
<td>199</td>
<td>337</td>
<td>270</td>
<td>191</td>
<td>240</td>
</tr>
<tr>
<td>9 Waterproofer</td>
<td>271</td>
<td>188</td>
<td>229</td>
<td>254</td>
<td>239</td>
<td>285</td>
<td>280</td>
<td>248</td>
<td>288</td>
<td>257</td>
<td>177</td>
<td>280</td>
</tr>
<tr>
<td>10 Plasterer (Surface)</td>
<td>346</td>
<td>214</td>
<td>260</td>
<td>283</td>
<td>246</td>
<td>304</td>
<td>340</td>
<td>283</td>
<td>369</td>
<td>342</td>
<td>201</td>
<td>310</td>
</tr>
<tr>
<td>11 Scaffolder</td>
<td>284</td>
<td>252</td>
<td>279</td>
<td>276</td>
<td>263</td>
<td>301</td>
<td>350</td>
<td>272</td>
<td>365</td>
<td>308</td>
<td>220</td>
<td>320</td>
</tr>
<tr>
<td>12 Welder</td>
<td>288</td>
<td>204</td>
<td>239</td>
<td>276</td>
<td>272</td>
<td>299</td>
<td>320</td>
<td>226</td>
<td>324</td>
<td>332</td>
<td>224</td>
<td>280</td>
</tr>
<tr>
<td>13 Rigger</td>
<td>278</td>
<td>176</td>
<td>198</td>
<td>254</td>
<td>238</td>
<td>283</td>
<td>280</td>
<td>252</td>
<td>324</td>
<td>227</td>
<td>200</td>
<td>210</td>
</tr>
<tr>
<td>14 Glazier</td>
<td>346</td>
<td>164</td>
<td>219</td>
<td>261</td>
<td>234</td>
<td>281</td>
<td>300</td>
<td>248</td>
<td>329</td>
<td>353</td>
<td>167</td>
<td>320</td>
</tr>
<tr>
<td>Average daily wage (1-14)</td>
<td>284</td>
<td>215</td>
<td>246</td>
<td>269</td>
<td>247</td>
<td>273</td>
<td>301</td>
<td>255</td>
<td></td>
<td>340</td>
<td>288</td>
<td>201</td>
</tr>
</tbody>
</table>

---

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. The rate is based on the weighted daily rates received from 2-4 contractors;
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

<table>
<thead>
<tr>
<th>Building Materials</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Aug</td>
<td>Sep</td>
<td>Oct</td>
</tr>
<tr>
<td>Portland cement Grade 42.5 (bag)</td>
<td>474</td>
<td>474</td>
<td>474</td>
</tr>
<tr>
<td>Reinforced concrete Grade C30 5-25 stone P8 waterproofing (without pumping fee)</td>
<td>447</td>
<td>447</td>
<td>466</td>
</tr>
<tr>
<td>Sand (rough/mixed)</td>
<td>97</td>
<td>102</td>
<td>102</td>
</tr>
</tbody>
</table>

(Source: www.bjzj.net)
## Wholesale Prices of Selected Building Materials in Chengdu

![Wholesale Prices of Selected Building Materials in Chengdu](image-url)

### Building Materials

<table>
<thead>
<tr>
<th>Building Materials</th>
<th>Wholesale Prices of Selected Building Materials in Chengdu</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2018</td>
</tr>
<tr>
<td></td>
<td>Aug</td>
</tr>
<tr>
<td>Reinforcement bar HPB235 (I) 10mm</td>
<td>¥/t</td>
</tr>
<tr>
<td>Reinforcement bar HRB400 (III) 25mm</td>
<td>¥/t</td>
</tr>
<tr>
<td>Portland cement Grade 42.5 (bag)</td>
<td>¥/t</td>
</tr>
<tr>
<td>Reinforced concrete Grade C30 5-25 stone P8 waterproofing (without pumping fee)</td>
<td>¥/m³</td>
</tr>
<tr>
<td>Sand (rough/mixed)</td>
<td>¥/t</td>
</tr>
</tbody>
</table>

(Source: www.sceci.net)
Wholesale Prices of Selected Building Materials in Shanghai

<table>
<thead>
<tr>
<th>Building Materials</th>
<th>Wholesale Prices of Selected Building Materials in Shanghai</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2018</td>
</tr>
<tr>
<td></td>
<td>Aug</td>
</tr>
<tr>
<td>Reinforcement bar HPB235 (I) 10mm</td>
<td>4,820</td>
</tr>
<tr>
<td>Reinforcement bar HRB400 (III) 25mm</td>
<td>4,650</td>
</tr>
<tr>
<td>Portland cement Grade 42.5 (bag)</td>
<td>530</td>
</tr>
<tr>
<td>Reinforced concrete Grade C30 5-25 stone P8 waterproofing (without pumping fee)</td>
<td>561</td>
</tr>
<tr>
<td>Sand (rough/mixed)</td>
<td>139</td>
</tr>
</tbody>
</table>

(Source: www.shjjw.gov.cn)
Wholesale Prices of Selected Building Materials in Shenzhen

<table>
<thead>
<tr>
<th>Building Materials</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reinforcement bar HPB235 (I) 10mm</td>
<td>¥/t 5,226 5,021 5,202 4,630 4,475</td>
<td>¥/t 4,890 4,828 4,913 4,886 4,693</td>
</tr>
<tr>
<td>Reinforcement bar HRB400 (III) 25mm</td>
<td>¥/t 4,890 4,913 4,886 4,693 4,391</td>
<td>¥/t 4,459 4,391 4,439 4,506 4,446</td>
</tr>
<tr>
<td>Portland cement Grade 42.5 (bag)</td>
<td>¥/t 541 561 562 585 602 609 589 575 556 549 527 518 522 551 589 632</td>
<td>¥/t 527 518 522 551 589 632 632 627 605</td>
</tr>
<tr>
<td>Reinforced concrete Grade C30 5-25 stone</td>
<td>¥/m³ 665 654 639 745 745 737 729 718 691 660 669 662 662 663 674 724</td>
<td>¥/m³ 724 737 737 718 716 716 681</td>
</tr>
<tr>
<td>P8 waterproofing (without pumping fee)</td>
<td>¥/m³ 665 654 639 745 745 737 729 718 691 660 669 662 662 663 674 724</td>
<td>¥/m³ 724 737 737 718 716 716 681</td>
</tr>
<tr>
<td>Sand (rough/mixed)</td>
<td>¥/t 156 151 128 143 168 153 149 152 154 144 150 150 150 150 150 182</td>
<td>¥/t 182 182 182 165 162 133</td>
</tr>
</tbody>
</table>

(Source: www.szcost.cn)