



# 北京城建设计发展集团股份有限公司

BEIJING URBAN CONSTRUCTION DESIGN & DEVELOPMENT GROUP CO., LIMITED

(A joint stock company incorporated in the People's Republic of China with limited liability)

Stock Code: 1599

## 2021 ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT



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## ABOUT THIS REPORT

### Objective of the Report

As the seventh Environmental, Social and Governance (“ESG”) Report released by Beijing Urban Construction Design & Development Group Co., Limited (hereinafter referred to as “UCD”), this report is to provide UCD’s environmental and social performance during 2021, and to respond to ESG-related issues which stakeholders are concerned about. This report should be read in conjunction with the “Corporate Governance Report” section of the annual report for the year, so that all stakeholders are able to fully understand UCD’s sustainable development strategy, measures and relevant performance.

### Scope of the Report

This report covers UCD and its member companies (hereinafter collectively referred to as the “Group” or “we”): Beijing Urban Construction Design & Research Institute (北京城建設計研究總院) (hereinafter referred to as the “Institute”), Beijing Urban Construction Exploration & Surveying Design Research Institute Co., Ltd. (北京城建勘測設計研究院有限責任公司 : hereinafter referred to as the “Exploration & Surveying Institute”) and Beijing Urban Rail Transit Construction Engineering Co., Ltd. (北京城建軌道交通建設工程有限公司 : hereinafter referred to as the “Rail Company”). Specific statistical scope of some environmental data will be illustrated in the “Environmental Performance” section.

Unless otherwise indicated, the reporting period is from 1 January 2021 to 31 December 2021 (hereinafter referred to as the “Reporting Period”).

### Preparation Basis

This report is prepared by the Group in compliance with the Environmental, Social and Governance Reporting Guide 《環境、社會及管治報告指引》 (hereinafter referred to as the “Guide” 《指引》) set out in Appendix 27 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited 《香港聯合交易所有限公司證券上市規則》 published by The Stock Exchange of Hong Kong Limited (hereinafter referred to as the “Hong Kong Stock Exchange”). The compliance with the Environmental, Social and Governance Reporting Guide 《環境、社會及管治報告指引》 is summarized in the “Contents Index to the Environmental, Social and Governance Report”. This report has complied with all “comply or explain” provisions set out in the Guide 《指引》, and has been prepared in accordance with the four reporting principles: materiality, quantitative, balance and consistency.

### Report Description

This report is published in Traditional Chinese and English. In the event of any ambiguity in the content of the report, the Traditional Chinese version shall prevail. The electronic version of the report can be read and downloaded through the Group’s official website and the website of the Hong Kong Stock Exchange.

The data of this report is generated from the online platform system adopted by the Group or by manual sorting. This report adopts Renminbi as the measurement currency.

## ABOUT THIS REPORT (CONTINUED)

## Response to the Esg Reporting Principles of the Stock Exchange

### Materiality

This report identifies material ESG issues based on the procedure for assessing systemically important issues, which involves identifying major stakeholders, identifying ESG issues related to the Group, inviting major stakeholders to participate in the assessment, and determining material ESG issues.

Please refer to the section headed "Assessment of Material Issues", for details of the assessment procedure and outcome of material issues.

### Quantitative

This report discloses key performance indicators (hereinafter referred to as "KPIs") on environmental and social performance, the standards, methods, assumptions and calculation tools used to measure the KPIs, as well as the sources of transforming factors employed, so as to optimally assess our environmental and social performance during the Reporting Period.

### Balance

This report gives a fair and true picture of our ESG performance in 2021, and provides readers with a basis for accurate decision-making or judgment.

### Consistency

Unless otherwise stated, the KPIs in this report adopt statistical methods consistent with those adopted in previous reporting periods to improve the comparability of environmental and social performance results.

## STATEMENT OF THE BOARD OF DIRECTORS

The board of directors (the “Board”) of the Group is the highest responsible and decision-making body for ESG matters, and assumes the overall responsibility for the ESG strategy and reporting matters of the Group, responsible for assessing and determining ESG risks, and ensuring the stable operation of the Group’s risk control and internal control systems. The Board has set up an ESG working group, which is responsible for monitoring the commitment as to and the performance of key ESG issues, and reporting to the Board to ensure the integration of ESG concepts and development strategies.

The Group attaches great importance to the material impact that the ESG risks may have on the Company. Based on the external social and economic macro environment and the Group’s development strategy, it regularly conducts assessments on material ESG issues and reports to the Board for review. The Board discusses and determines the Group’s ESG risks and opportunities, takes the management and improvement of material issues as the focus of ESG work, incorporates them into the Group’s overall strategy for consideration, and monitors issue management and performance.

The Group will continue to strengthen the mechanism for the Board to participate in ESG work, and consider formulating ESG management objectives in respect of pollutant discharge, energy consumption management, water resource consumption management, carbon emission, occupational health and safety and product quality, so as to continuously implement the Group’s work in relation to ESG governance, and conduct regular reviews on the progress towards the goals to ensure the realization thereof.

This report discloses in detail the progress and effectiveness of UCD’s ESG work in 2021, and has been reviewed and approved by the Board. The Board and all directors of UCD guarantee that this report is free of any false records, misleading statements or major omissions, and are individually and jointly liable for the authenticity, accuracy and completeness of the content hereof.

## MESSAGE FROM THE MANAGEMENT

2021 embraced the 100th anniversary of the founding of the Communist Party of China and the beginning year of the “14th Five-Year Plan” period. We fully put into practice Xi Jinping’s Thought on Socialism with Chinese Characteristics for a New Era, adhered closely to the Group’s strategic development plan for the “14th Five-Year Plan” period, strengthened confidence and boosted morale, captured opportunities, took the initiative in advance of others, adhered to the development model featuring led by design, industry coordination and driven by innovation, and expanded in depth around the entire rail transit industry chain to drive the coordinated growth of various businesses and maintain a steady development momentum, and continued to grow bigger and stronger by focusing on the strategic goal of developing into an integrated and design-led urban construction service provider.

The year 2021 marked the seventh anniversary of UCD’s successful listing on the Main Board of the Hong Kong Stock. Facing the complex development environment, we comprehensively promoted responsible operations and took advantage of ESG construction to boost the Company’s high-quality development. Meanwhile, we actively integrated social responsibility requirements, such as serving the “carbon neutrality” and “carbon peak” goals and supporting rural revitalization, into our daily operation and management, and continuously improved the ability and level of fulfilling social responsibility to contribute to the sustainable development of the society.

Ensuring high-quality project performance through scientific management. We comprehensively carried out hierarchical management and control of safety risks and hidden dangers, strengthened the prevention and control of safety risks from hazardous sources, and have not recorded any injuries or deaths due to work for three consecutive years. We continued to improve the quality control measures in the QHSE system and continuously strengthened customer service management. In 2021, the Group recorded no quality incidents, design review rate of 100%, design consulting achievement approval rate of 100%, project quality pass rate of 100%, one-time acceptance rate of unit project of 100%, achieving the annual quality targets.

Enhancing innovation and efficiency to produce high-quality development results. We devoted ourselves to product innovation, drove product upgrade with technological innovation, and, on the basis of strengthening our own industrial structure, conducted academic activities, actively communicated with peers, and made progress together with peers, thereby contributing to the technological innovation of the entire industry. The “Phase I Project of Zhengzhou South Fourth Ring Road to Zhengzhou South Station Suburban Railway” of the Company won the 18th Tien-yow Jeme Civil Engineering Prize (中國土木工程詹天佑獎), and our “Key Technology of Urban Rail Transit Rail Structure Assembly Construction and Its Application (城市軌道交通軌道結構裝配化建造關鍵技術及應用)” and “Key Technology for Controlling the Disturbance of Soft Soil Strata Engineering Construction on Neighboring Subway Tunnels and Its Engineering Application (軟土地層工程建設對鄰近地鐵隧道擾動控制關鍵技術與工程應用)” won the first prize of “China Award for Science and Technology in Construction (華夏科學技術獎)” in 2021.

Keeping people-oriented to cultivate high-quality talents. We respect the personal interests of employees and have established a scientific employee compensation system and incentive mechanism. We strengthened the organizational construction of workers’ congresses and labor union, and improved the cultural life of employees through the “Cloud” series of activities, “Workers’ Home (職工之家)”, “Workers’ House (職工小家)” and other means. We actively carry out vocational education and training for employees to promote the improvement of employees’ vocational skills and quality. We pay attention to the physical and mental health of employees, carry out health checks for employees on an annual basis, strengthen humanistic care and psychological counseling, and promote the formation of a great workplace atmosphere.

## MESSAGE FROM THE MANAGEMENT (CONTINUED)

Striving for high-quality ecological development through green operation. In response to the carbon neutrality and carbon peak goals, we have identified and analyzed climate risks and opportunities, continuously improved the level of green construction management, promoted the implementation of environmental management measures, and improved the environmental management system. We have formulated environmental goals and are committed to promoting the gradual realization of recycling, harmlessness and reduction of waste, saving energy and reducing consumption, and minimizing the waste of resources. In 2021, the compliance rate of green construction was 100%.

Caring for the people and building a harmonious society together. In order to achieve common prosperity, we practically supported local governments to consolidate and expand the achievements of poverty alleviation to achieve rural revitalization. We exerted active efforts on flood fighting and emergency rescue, as well as community epidemic prevention and control, and participated in voluntary public welfare activities to promote the development and progress of local communities.

As a leading enterprise in urban rail transit, we always put into practice the ESG concept and promote the construction of ESG system with high standards. Meanwhile, we made active corporate social responsibility planning covering law-based corporate governance, service quality, profit creation, employee development, work safety supervision, advances in technology, environmental protection, targeted poverty alleviation, public wellbeing, win-win cooperation and overseas responsibilities, start a new journey of high-quality development in an all-round way with a higher position, a broader landscape and a wider vision, and make greater contributions to propelling social development and promoting common prosperity!

## GROUP PROFILE

Founded in 1958, UCD is a technology-based engineering company that provides professional services for urban construction, with business coverage on urban rail transit, integrated transportation hubs, underground space development, industrial and civil buildings, municipal buildings, bridges, roads, etc., and also provides customers with professional, high-quality full-services including pre-project consulting, planning, investment and financing, surveying and mapping, design, project management, project general contracting, system integration, project evaluation and economic analysis.

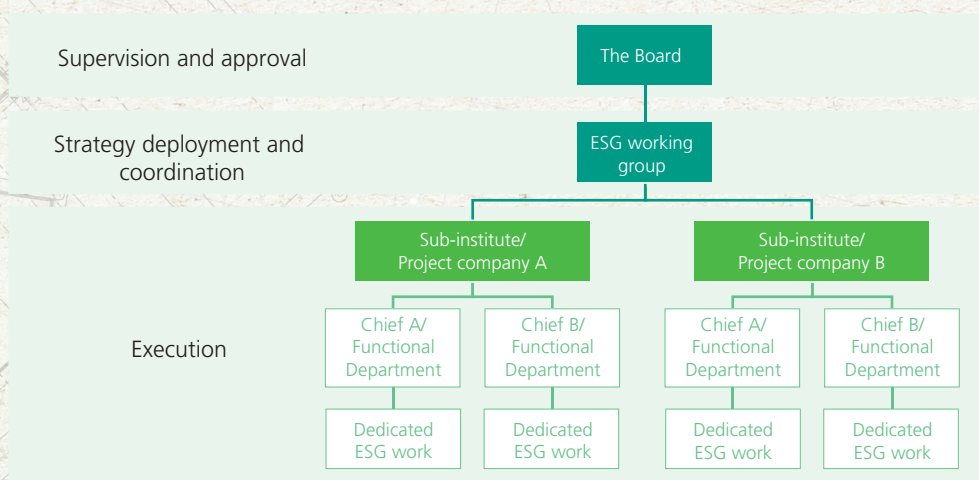
The Group has the comprehensive grade-A qualification, the highest qualification in China's design and survey industry, and is the main formulator of the national design specifications for urban rail transit industry. Besides, the Group has the first academican and expert studio for urban rail transit in China, has taken the initiative to lead the establishment of three technological innovation platforms, including the National Engineering Laboratory for Urban Rail Transit Construction Process and Technology (城市軌道交通建設工藝與技術國家工程實驗室), Beijing Rail Transit Structure Center (北京市軌道交通結構中心), and the Rail Transit Energy Conservation Center (軌道交通節能中心), and is committed to building a domestic first-class platform for the promotion of new technology innovation and application.

The Group has established business presence in more than 80 cities in China with branches in more than 50 cities, and has extended its presence to overseas markets such as Angola, Vietnam, Russia, Pakistan, Kazakhstan, Mozambique, Ethiopia and Maldives. We always adhere to the mission of "Design the City, Build the Future", and strive to become a design-led comprehensive service provider for urban construction, thereby promoting the harmonious and sustainable development of people, cities and the environment.

# SUSTAINABILITY MANAGEMENT

## ESG Management Structure

An efficient ESG management mechanism can effectively integrate ESG management into corporate operation and management, and promote the sustainable development of the Group. Based on the recommendations of the Hong Kong Stock Exchange, we have established an ESG working group that reports to the Board to continuously promote the management of the Group's sustainable development.



**Figure: ESG Management Structure of UCD Group**

UCD has established an ESG management structure with organic synergy and clear powers and responsibilities to ensure the integration of ESG into the performance of duties at all levels. At the decision-making level of ESG management structure, the Board assumes overall responsibility for the Group's ESG countermeasures and reporting, is responsible for assessing and determining ESG risks, and guides the ESG working group to arrange and coordinate related matters in ESG work to ensure the stable operation of the Group's risk control and internal control systems. At the deployment and negotiation level of ESG work, the ESG working group is responsible for reporting ESG related work to the Board, and follows up on the implementation, supervision, reporting and continuous improvement of related practices, and implements the ESG management strategy and countermeasures formulated by the Board. In addition, we will further improve the ESG management structure, strengthen the participation mechanism of the Board in ESG work, and set ESG management goals in a timely manner.

In compliance with the Board Diversity Policy 《董事會成員多元化政策》, UCD selects Board candidates based on a range of diversity criteria, taking into account the diversity, experience and skill requirements for the directors. As of 31 December 2021, the Board of the Group consisted of 2 executive directors, 8 non-executive directors and 5 independent non-executive directors, of which two non-executive directors are female, and UCD plans to further increase the proportion of female directors. In addition, the Group has established a nomination committee to assess the independence of independent non-executive directors. The nomination committee will, according to the actual needs of the Group, recommend the Board to increase the proportion of independent directors to introduce sufficient independent opinions for the Board. In 2021, the independent non-executive directors of the Group account for one third of the Board.

## SUSTAINABILITY MANAGEMENT (CONTINUED)

## Communication with Stakeholders

Stakeholders from all walks of life are the Group's companions in the journey of development. In order to communicate closely with stakeholders such as the government, investors, customers, employees, partners, community and the public, we continuously improve the communication mechanism with various stakeholders, actively understand and respond to their demands, and work together with stakeholders to achieve a sustainable future.

Stakeholders	Needs and Expectations	Communication and Response
 Government	<ul style="list-style-type: none"> <li>Compliance with laws and regulations</li> <li>Payment of taxes</li> <li>Support for economic development</li> </ul>	<ul style="list-style-type: none"> <li>Operation in compliance with relevant laws and regulations</li> <li>Payment of taxes in compliance with relevant regulations</li> </ul>
 Investors	<ul style="list-style-type: none"> <li>Return on investment</li> <li>Growth of business and earnings</li> <li>Risk management</li> <li>Information disclosure</li> </ul>	<ul style="list-style-type: none"> <li>Transparent and regular disclosure of information</li> <li>General investor meetings</li> <li>Investor summits</li> <li>Roadshows</li> </ul>
 Customers	<ul style="list-style-type: none"> <li>Provision of high-quality products and services</li> <li>Satisfaction of customers' diversified needs</li> <li>Creation of value for customers</li> </ul>	<ul style="list-style-type: none"> <li>Assurance of service quality</li> <li>Protection of customer information</li> <li>Survey of customer satisfaction</li> </ul>
 Employees	<ul style="list-style-type: none"> <li>Employee interests</li> <li>Training and development</li> <li>Occupational safety and health</li> <li>Work and life balance</li> </ul>	<ul style="list-style-type: none"> <li>Provision of competitive and good remuneration and benefits</li> <li>Provision of various career development paths</li> <li>Improvement of employee training system</li> </ul>
 Partners	<ul style="list-style-type: none"> <li>Open, fair and equitable purchases</li> <li>Compliance with contracts</li> </ul>	<ul style="list-style-type: none"> <li>Execution of contracts</li> <li>Open tendering</li> </ul>
 Community and the public	<ul style="list-style-type: none"> <li>Community development</li> <li>Public welfare undertakings</li> </ul>	<ul style="list-style-type: none"> <li>Assistance in community construction</li> <li>Participation in public welfare undertakings and charities</li> <li>Regular organization of volunteer activities</li> </ul>

## SUSTAINABILITY MANAGEMENT (CONTINUED)

### Assessment of Material Issues

We attach great importance to the identification and management of sustainable development issues, communicate with stakeholders on a regular basis, comprehensively understand and collect views and feedback from the government, shareholders, employees, customers and other parties, and continue to improve the Group's sustainable development management. The specific assessment process is as follows:

#### Step 1

#### Establish database of ESG issues

On the basis of the 2020 ESG issue database, the Group updated the ESG issues in three aspects, i.e. environment, staff and operation, by reference to the basis for compiling this report, and based on the characteristics of relevant companies. A total of 27 potential ESG issues were identified and included in the 2021 ESG issue database.

#### Rank ESG issues according to the priority of stakeholders

The Group invited stakeholders such as employees, the Board and the management to complete online questionnaires. The stakeholders ranked the ESG issues in the three aspects from their respective perspectives.

#### Step 2

#### Step 3

#### Assess material ESG issues

Based on the results of the questionnaires, the Group developed the materiality matrix for the three aspects, namely environment, staff and operation, through analysis of the issues in terms of their "importance for the employees" and "importance for UCD". ESG issues that receive an importance score of more than 50% in both categories are identified as "material ESG issues." A total of 16 material ESG issues were established this time.

#### Confirm the outcome of the ESG issue assessment

The Group invited the Board and the management to identify the material ESG issues to ensure that the results dovetail with the direction of the Group's sustainable development strategy. The later sections of this report focus on material ESG issues acknowledged by the Board and the management, with a view to responding to the ESG issues that concern the stakeholders most.

#### Step 4

## SUSTAINABILITY MANAGEMENT (CONTINUED)

Through the assessment, we developed the materiality matrix for the three aspects, namely environment, staff and operation:

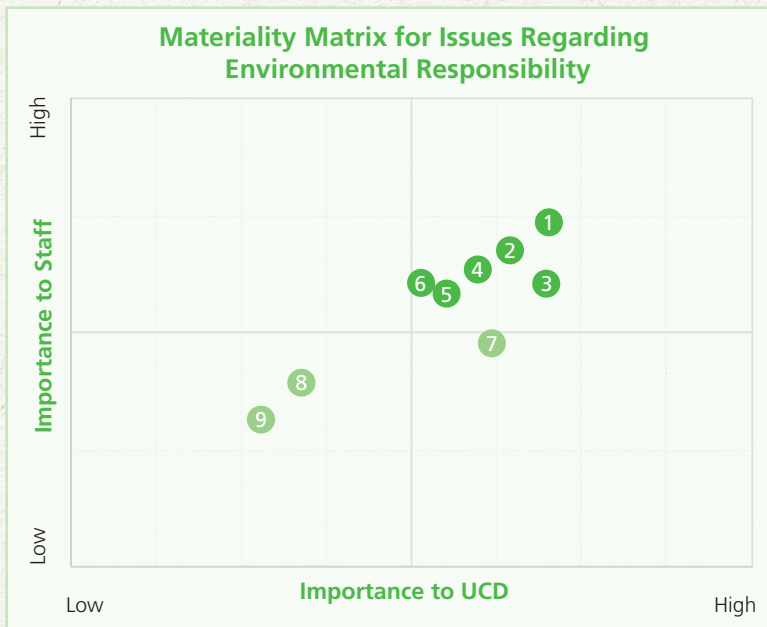


Figure: Materiality Matrix for Issues Regarding Environmental Responsibility

- ① Discharge and management of pollutants
- ② Discharge and management of waste
- ③ Management of energy utilization
- ④ Management of water resource utilization
- ⑤ Discharge and management of greenhouse gas
- ⑥ Green office policy management
- ⑦ Green construction policy management
- ⑧ Climate change response policy and measures
- ⑨ Participate in and donate to environmental protection activities

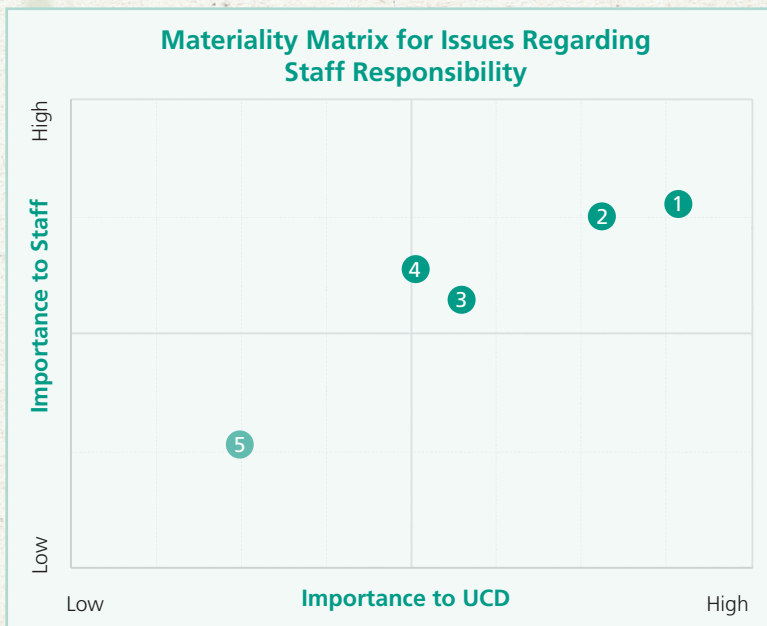
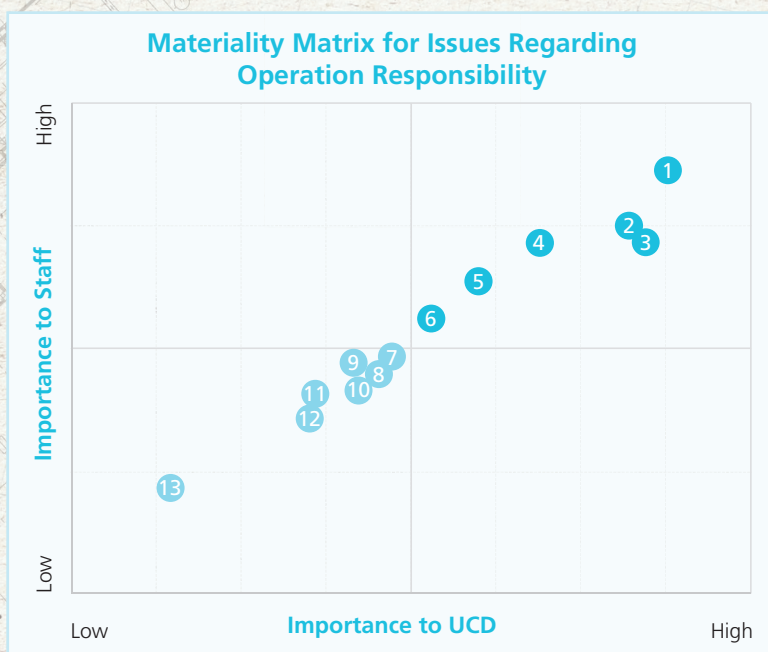


Figure: Materiality Matrix for Issues Regarding Staff Responsibility

- ① Protection of staff's interest
- ② Management of staff's health and safety
- ③ Staff training and career development
- ④ Policy of staff benefits
- ⑤ Prohibition of child labor and forced labor

## SUSTAINABILITY MANAGEMENT (CONTINUED)



- 1 Work safety
- 2 Service quality
- 3 Technological innovation
- 4 Project quality
- 5 Protection of intellectual property
- 6 Protection of customers' privacy
- 7 Selection and management of suppliers
- 8 Environmental risk management of supply chain
- 9 Standardization of tendering process
- 10 Social risk management of supply chain
- 11 Anti-corruption (anti-bribery, extortion, fraud, money laundering, etc.)
- 12 Communication with stakeholders
- 13 Community investment (e.g. education and healthcare improvement, poverty alleviation, etc.)

**Figure: Materiality Matrix for Issues Regarding Operation Responsibility**

At the same time, we identified 16 material issues through the analysis on the matrix of material issues with specific orders as follows:

Environment Responsibility	
1	Discharge and management of pollutants
2	Discharge and management of waste
3	Management of energy utilization
4	Management of water resource utilization
5	Discharge and management of greenhouse gas
6	Green office policy management
Staff Responsibility	
1	Protection of staff's interest
2	Management of staff's health and safety
3	Staff training and career development
4	Policy of staff benefits
Operation Responsibility	
1	Work safety
2	Service quality
3	Technological innovation
4	Project quality
5	Protection of intellectual property
6	Protection of customers' privacy

# 1 OPERATIONAL EXCELLENCE, AND PROFIT GENERATION

Material ESG issues addressed in this section are as follows:		
Work safety	Service quality	Technological innovation
Project quality	Protection of intellectual property	Protection of customers' privacy
Management of staff's health and safety		

The Group fully puts into practice the management philosophy of "Scientific Management, Superb Quality, Continuous Improvement, and Customer Satisfaction". We continue to optimize the work safety system, continuously improve the cost-effectiveness of engineering design, provide customers with diversified services, accelerate the innovation-driven development of the industry, strengthen supplier-related management, and carry out various work in depth for operational excellence.

## 1.1 QHSE Management Systems

The Group always emphasizes steady operation as the top priority, and focuses on the construction of quality, health, safety and environmental management responsibility in the course of operation. The Group has systematically integrated quality, health, safety and environmental management models based on its own business characteristics to establish a quality, occupational health and safety and environmental management system (hereinafter referred to as the "QHSE System") to ramp up the management of internal systems and improve the QHSE management and control-level of the Group.

The QHSE System of Group with a three-level management structure and in compliance with the Quality Management Systems – Requirements 《質量管理體系要求》(GB/T 19001-2016), Environmental Management Systems – Requirements with guidance for use 《環境管理體系要求及使用指南》(GB/T 24001-2016), Occupational Health and Safety Management Systems – Requirements with guidance for use 《職業健康安全體系要求及使用指南》(GB/T 45001-2020) and Code for Quality Management of Engineering Construction Enterprises 《工程建設施工企業質量管理規範》(GB/T 50430-2017) and other national standards, the QHSE System provides a systematic procedure guidance and policy guarantee from three aspects of quality, environment and occupational health and safety. In 2021, the Group's coverage rate of the ISO45001, ISO14001 and ISO9001 system certification was 100%.

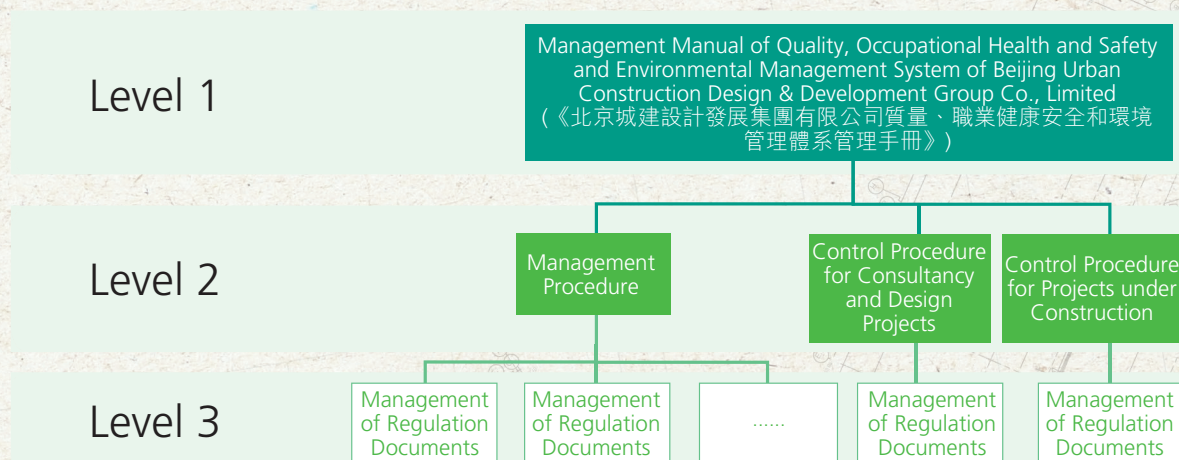


Figure: QHSE Management Structure of UCD Group

## 1 OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (CONTINUED)

### 1.2 Work Safety

The Group strictly abides by the Production Safety Law of the People's Republic of China 《中華人民共和國安全生產法》, the Law of the People's Republic of China on the Prevention and Control of Occupational Diseases 《中華人民共和國職業病防治法》, the Construction Law of the People's Republic of China 《中華人民共和國建築法》, the Labor Law of the People's Republic of China 《中華人民共和國勞動法》 and other national laws and regulations, and has formulated various regulations and rules such as the Administrative Measures for the Work Safety of Beijing Urban Construction Design & Development Group Co., Limited 《北京城建設計發展集團股份有限公司安全生產管理辦法》. The Group adheres to the work safety policy of "safety first, prevention in priority and comprehensive management (安全第一、預防為主、綜合治理)", clarifies the work safety responsibility of personnel at all levels by implementing the main responsibility of work safety as an enterprise, and further strengthens work safety measures to prevent and reduce work safety accidents, and create a safe working environment. During the Reporting Period, the Group has invested RMB49.37 million in work safety, and the Group has neither recorded any case of work-related injury or death for three consecutive years, nor had any loss of working days due to work-related injuries.

#### WORK SAFETY SYSTEM BUILDING

The Group fully implements the working mechanism of "the Party and the government sharing the same responsibility, one post with dual responsibilities, joint management and accountability for dereliction of duty (黨政同責、一崗雙責、齊抓共管、失職追責)" in respect of work safety. We strictly abide by the Safety Production Law of the People's Republic of China 《中華人民共和國安全生產法》, the Construction Safety Management Regulations 《建設工程安全管理條例》 and other laws and regulations, and internally formulate the Mandatory Safety Management Regulations of Beijing Urban Construction Design & Development Group Co., Limited 《北京城建設計發展集團股份有限公司安全管理強制性規定》 and other rules and regulations, continuously improve the safety management system to clarify the responsibilities of all departments for work safety, set up safety management agencies as required, and assign safety management personnel with corresponding qualifications and capabilities to be in charge of the Group's work safety management, so as to ensure that the realization of goals complies with relevant laws and regulations and the effective operation and continuous improvement of the safety management system. In 2021, the Group formulated the Administrative Measures for the Work Safety of Beijing Urban Construction Design & Development Group Co., Limited 《北京城建設計發展集團股份有限公司安全生產管理辦法》 to further standardize work safety management.

In order to continuously enhance and improve work safety, the Group and its members have established a work safety committee to comprehensively lead and coordinate the management and promotion of work safety. Meanwhile, we implement the work safety meeting system, and hold meetings on a quarterly and monthly basis, mainly to summarize the problems arising from the work safety process, propose solutions, and formulate relevant treatment methods and implementation plans, so as to improve the work safety system of the Group, and strive to achieve the Group's work safety goal of "zero injury, zero accident, zero fatality".

## 1 OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (CONTINUED)

### SAFETY RISKS AND RISK CONTROL

Safety culture is an important part of the Group's culture, and we also recognize that safety risk management is playing an increasingly important role in the Group's overall management activities.

In order to carry out emergency rescue work for work safety accidents in a timely and effective manner and minimize the losses caused by work safety accidents to enterprises and employees, the Group has formulated the Construction Safety Risk Grading Management and Hidden Trouble Investigation and Governance System of Beijing Urban Construction Design & Development Group Co., Limited 《北京城建設計發展集團股份有限公司施工安全風險分級管控和隱患排查治理制度》, and established a leading group for the construction safety risk grading management and hidden trouble investigation and governance to be fully responsible for the construction safety risk grading management and hidden trouble investigation and governance of the Company, thereby implementing practical and reliable identification, processing and control for four levels of risks, namely material risks, major risks, general risks and lower risks. The Exploration & Surveying Institute has formulated the Comprehensive Emergency Rescue Plan for Work Safety Accidents 《生產安全事故綜合應急救援預案》 to strengthen the capabilities of each unit in responding to and handling emergencies and prevent the occurrence of safety accidents.

In order to further strengthen the safety risk prevention and control of hazard sources, in 2021, we formulated corresponding hazard source management registration forms for subway projects, municipal projects, house construction projects, decoration projects, equipment installation projects and steel structure installation projects, and established a list of non-acceptable hazard sources and a management plan for occupational safety and health. The hazard source registration forms predict the possible safety accidents that may be caused by the hazard sources of different operating activities, and grade the hazardous levels of the operating conditions. The list of unacceptable hazard sources and the management plan for occupational safety and health clarified the safety management objectives of different operating activities, and put forward corresponding management measures. The Exploration & Surveying Institute supplemented and improved the safety risk control and management system. In 2021, it revised the Measures for the Monitoring of Major Hazardous Sources and the Rectification of Major Hidden Dangers 《重大危險源監控和重大隱患整改措施》 and the Management Measures for Hidden Hazard Investigation (Trial) 《隱患排查管理辦法(試行)》 to regulate and rectify related hidden dangers.

## 1 OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (CONTINUED)

### TRAINING AND EMERGENCY DRILL

The Group conducts safety training and drills for all employees to continuously improve their emergency response capabilities and strengthen their safety awareness and professional skills. We require to organize an emergency rescue drill every year, learn relevant content for the departments and personnel involved, clarify the responsibilities of each department, and make emergency preparations as required, so as to effectively improve the learning effectiveness and safety skills of the employees. During the Reporting Period, the safety training hours of the Group per capita was 13.86 hours, and 42,253 employees received safety trainings during the year.

#### Committed to ensuring project safety, Rail Company held the launching ceremony of the "Month of Fire Protection Publicity (消防宣傳月)" in 2021

On the afternoon of 9 November 2021, the second project management center of the Rail Company officially launched the "Month of Fire Protection Publicity" with the theme of "Implementing Fire Protection Responsibility and Preventing Safety Risks", and immediately carried out emergency drills. During the Month of Fire Protection Publicity, each project department adopted self-correction and self-inspection, inspection led by leaders, random inspection by management units, and comprehensive supervision and inspection to tighten fire safety production management.

This fire safety emergency drill has strengthened the work safety awareness of all personnel of the project departments, and improved the professional skills and management level of work safety.



Picture: Month of fire protection publicity and emergency drill of Rail Company

## 1 OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (CONTINUED)

### Organizing safety education to enhance safety awareness

On 10 June 2021, the Group launched a special safety training activity, and organized all employees to participate in the learning activities of the responsibilities as an enterprise for work safety, with a view to focusing on strengthening the safety awareness of the leaders of relevant units and other leading cadres, enhancing the sense of responsibility for work safety, and exerting earnest efforts on the implementation of the main responsibility as an enterprise. Meanwhile, the Group organized publicity and training of the Safety Management Regulations for Construction Engineering Projects of Beijing Urban Construction Group Co., Ltd. 《北京城建集團有限責任公司建設工程施工項目安全管理規程》 to further improve the work safety management level at the construction site.



Picture: The Group organizing all staff to participate in work safety management training

## 1 OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (CONTINUED)

### Work safety knowledge contest

On 17 June 2021, the Exploration & Surveying Institute held a work safety knowledge contest. A total of 12 teams participated in this contest, and more than 50 employees watched the contest. Through this work safety knowledge contest, contestants and spectators have benefited a lot, learned more safety knowledge, and further realized the importance of safety.



○ Pictures: Exploration & Surveying Institute organizing work safety knowledge contest

## 1 OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (CONTINUED)

### Emergency rescue drill for work safety accident

On 25 June 2021, the Exploration & Surveying Institute organized and launched the activity of "2021 Underground Pipeline Accident Emergency Rescue Drill", and a total of more than 60 employees participated in the activity.

This underground pipeline accident emergency rescue drill has improved the safety awareness and operational skills of geotechnical engineering survey operators, improved emergency rescue and disposal capabilities, and accumulated practical experience in emergency rescue, thereby laying a solid foundation for the prevention and control of work safety accident in geotechnical engineering survey operations, and the efficient and orderly emergency rescue work in the future.



Picture: Exploration & Surveying Institute organizing the activity of "2021 Underground Pipeline Accident Emergency Rescue Drill"

### OCCUPATIONAL HEALTH AND SAFETY

The Group attaches great importance to the occupational health and safety of its employees. In order to protect the occupational health of employees, we strictly abide by the Law of the People's Republic of China on the Prevention and Control of Occupational Diseases 《中华人民共和国职业病防治法》, the Management Regulations for Labor Protection Products of Employers 《用人单位劳动防护用品管理规范》 and other national and local laws and regulations on occupational health, and internally formulate the Measures of Beijing Urban Construction Design & Development Group Co., Limited on Prevention and Control of Occupational Diseases 《北京城市建设发展集团股份有限公司职业病危害防治措施》 and other rules and regulations to further clarify the occupational health management work, and improve the working environment of employees. Given the particularity of the industry where the Group operates, we have formulated relevant preventive measures against occupational diseases such as pneumoconiosis, occupational poisoning, heatstroke and noise deafness, which are also implemented within the Group.

## 1 OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (CONTINUED)

Types of potential occupational diseases	Workplace management and preventive measures	Personal equipment and precautions
Pneumoconiosis	Adopt wet operation method wherever possible, and use dust-reducing equipment when the operation conditions permit. Strengthen ventilation and dust removal measures.	Distribute dust masks to construction workers according to the operating environment and replace them regularly.
Occupational poisoning	For work sites that are prone to carbon monoxide poisoning and hydrogen sulfide poisoning (such as underground pipelines, cellars, etc.), forced ventilation is required if toxic and harmful gases exceed the standard. Operation must not be started before the toxic and harmful gas content reaches the standard. Forced ventilation must be carried out in the workplace while operating.	Strictly implement safety operation regulations and work regularly in shifts.
Heatstroke	Arrange the working time reasonably and ensure the supply of heatstroke prevention drinks.	Increase or decrease clothing according to the weather, ensure regular rest during high temperature operation, and supplement salty drinks in time.
Noise deafness	For strong noise equipment on the construction site, noise reduction measures such as full enclosure must be taken.	Wear suitable earplugs according to the noise level of the workplace.

Besides, in order to supervise and review occupational disease prevention and treatment operations on a regular basis, we have put into place an effective inspection system, requiring to review the prevention and control of occupational diseases within the Group once a quarter. For projects in which the Group acted as the general contractor, we required project managers to conduct random inspection on prevention and control of occupational diseases once a month; for projects in which the Group acted as the subcontractor, we required project managers to conduct one inspection in every ten days. In addition, we conducted spot checks on the workplace environment and the use of protective equipment by employees from time to time, and organized staff physical examinations on a quarterly basis.

## 1 OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (CONTINUED)

In order to strengthen the distribution of labor protection products at the workplace, the Group has formulated the Labor Protection Supply Management System of Beijing Urban Construction Design & Development Group Co., Limited 《北京城建設計發展集團股份有限公司勞動防護用品管理制度》, which sets out clear requirements on the procurement, acceptance, storage, distribution, use, and replacement and retirement procedures, so as to further improve the management of labor protection products of the Group.

### 1.3 Service Quality

Adhering to the quality control tenet of “Scientific Management, Superb Quality, Continuous Improvement, and Customer Satisfaction”, the Group has continuously improved its capabilities in project positioning, product research and development, quality control and service management. We strictly abide by the Construction Law of the People’s Republic of China 《中華人民共和國建築法》, the Contract Law of the People’s Republic of China 《中華人民共和國合同法》, the Advertising Law of the People’s Republic of China 《中華人民共和國廣告法》 and other laws and regulations to ensure that we provide customers with the services of the best quality.

#### DESIGN AND CONSTRUCTION QUALITY

The Group is committed to delivering superior design and construction quality. We clearly recognize that high-quality engineering design and construction services are related to the safety of users and the long-term development of the Company. Therefore, we regard optimizing the quality control procedures and quality verification procedures as our top priority.

Meanwhile, we strictly follow the quality control guidelines in the QHSE management system, and set up corresponding quality control procedures for different construction segments to ensure that the delivered products meet the standards.

Quality assurance procedure	Engineering design, engineering consulting segments	Construction segment
General control procedure	We executed process control, design drawing review, design quality release, post-design service, design change control procedures and other management procedures for design consulting services in accordance with the Design Consulting Procedure Document 《設計諮詢程序文件》.	We implemented management on construction technology, construction quality and construction production for construction contracting services in accordance with the Construction Project Control Procedure Document 《施工項目控制程序文件》, so as to ensure that all the above works have standardized quality standards, execution procedures, division of responsibilities and work records.

## 1 OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (CONTINUED)

Quality assurance procedure	Engineering design, engineering consulting segments	Construction segment
Inspection mechanism	Design quality is checked through random quality inspection of drawings of design projects and tour inspections of design projects on irregular basis, professional technical quality analysis report, external auditor's opinion and statistical analysis, and regular design quality meetings. For every issues identified in the course of quality supervision, we performed work in accordance with the Rules on Management of Punishment Regarding Technical Quality of Design 《設計技術質量處罰管理規定》.	Quality supervision of construction segment included project inspections, quality meetings and statistical analysis of information submitted. For every issues identified, we performed work in accordance with the Rules on Management of Punishment Regarding Technical Quality of Construction 《施工技術質量處罰管理辦法》.
Product protection	We provide proper product protection, including necessary packaging to prevent damage to the documents in-transit, before delivering design products to customers, and ensure that the design products delivered to customers are complete and intact. Anti-magnetic/scratch/deformation/damage, etc. measures are adopted for design documents delivered in electronic form.	Protection is provided for finished products and semi-finished products on building sites. Each project department is responsible for the handling, storage, protection, and delivery of products and building materials, with appropriate measures adopted to prevent damages to products and raw materials, degradation of product quality or performance, and ensure product quality and safety meet the prescribed requirements.

During the Reporting Period, the Group recorded no quality incidents, design review rate of 100% and design consulting achievement approval rate of 100%; project quality pass rate of 100% and one time acceptance rate of unit project of 100%, achieving the annual quality target.

Furthermore, the Group has strictly complied with the Advertising Law of the People's Republic of China 《中華人民共和國廣告法》 and other laws and regulations related to business promotion compliance. In the ordinary course of business, the Group performed marketing control procedures under the QHSE System and policies such as Marketing Management Measures 《市場營銷管理辦法》, and conducted stringent control on labeling matters related to design, consultancy and contracting businesses, so as to prevent misleading the public and clients.

## 1 OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (CONTINUED)

### CUSTOMER SERVICE

The Group incorporates the improvement of service awareness and the optimization of customer experience into the core of corporate operations, and continuously strengthens customer service management to ensure that customers' requirements and expectations are satisfied. In accordance with the Rules on Customer Satisfaction Survey and Application (《顧客滿意度調查及應用規定》) and the Rules on Project Warranty Management (《工程保修管理規定》) in the QHSE system, we made use of various channels to collect customer feedback and provide warranty services in accordance with the contract. Meanwhile, we will regularly visit the owners every year to understand the owners' satisfaction and evaluation of our work in a more direct way. During the Reporting Period, the total number of complaints from the Group's customers, the total number of service-related complaints and the total number of other complaints were 0, respectively.

In order to follow up on and handle the comments and suggestions of customers in a timely manner, we communicate with the customer in real time, including informing the customer of the progress in the processing of the complaint and the approach adopted. The Exploration & Surveying Institute has formulated the Customer Service Management Measures (《顧客服務管理辦法》) and Customer Service Assessment Rules (《顧客服務考核細則》) to collect feedback through various channels and come up with solutions in time. The Customer Service Management Measures (《顧客服務管理辦法》) stipulates, any complaint of every customers shall be recorded for analysis and screening, and the responsible department shall classify the customer complaints received as major complaints, serious complaints or general complaints according to the content and severity of the incident, and refer the complaint to the relevant departments. The leader in charge is responsible for following up, reviewing and confirming the processing results, and providing the customer with the outcome thereof within 24 hours. During the Reporting Period, the Group has not received any complaints in respect of the quality of its products.

In order to ensure the security of customer information and prevent unauthorized disclosure of customer information, we have implemented the Confidential Work Management (Interim) Regulations of Beijing Urban Construction Design & Development Group Co., Limited (《北京城建設計發展集團股份有限公司保密工作管理(暫行)規定》) to set out specific requirements for the information confidentiality scope and confidentiality matters of the Group, document management and circulation, document clearance, filing, destruction, informatization and archive management, and confidential personnel responsibilities. Some of the specific measures are shown below (including but not limited to):

- The obsolete design drawings, technical data and calculation sheets of confidential projects shall be submitted to the Archive Center for management and destruction in time. The documents and internal data to be destroyed must be destroyed by a specific manufacturer after registration;
- Employees are not allowed to bring confidential documents, information and other items when going to public places or visiting relatives and friends;
- Employees must not transmit or process confidential information on fax machines or computers without confidentiality measures;
- The headquarters and member companies shall regularly carry out confidentiality education, enhance the awareness of confidentiality, and conduct regular inspection on confidentiality.

## 1 OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (CONTINUED)

In accordance with these regulations, we require employees to strictly comply with confidentiality requirements, ensuring thorough protection of customer information. In the event that customer information is divulged by an employee, we investigate into the employee's liability according to the severity of the offense.

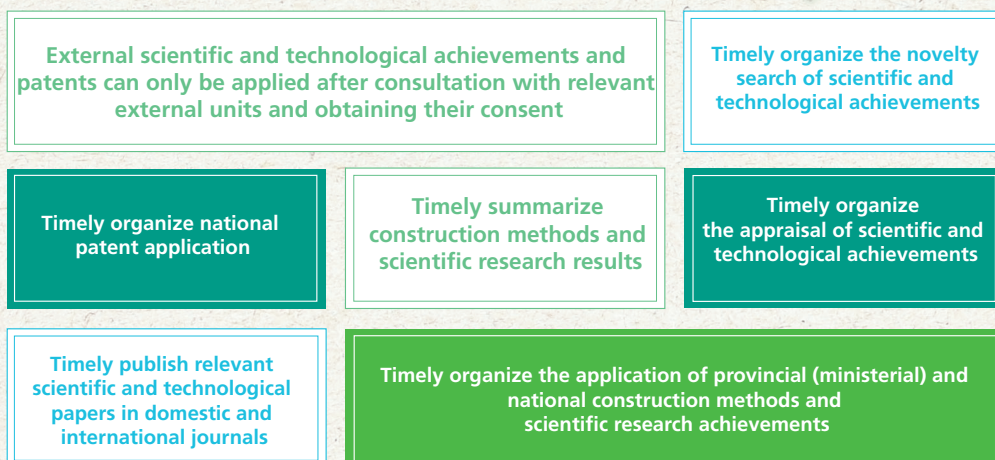
In 2021, the Exploration & Surveying Institute formulated the Administrative Measures for the Protection of Customer Privacy 《客戶隱私保護管理辦法》, which stipulated the determination/confidentiality measures for the scope and level of confidentiality, and the responsibilities and penalties for violations thereof, to strictly implement the work for the confidentiality of customer information.

### 1.4 Promote Innovation

The Group firmly believes that technological development is the fundamental driving force for the future development of the Company. Adhering to the innovative spirit of unity and cooperation, we are committed to creating a design brand of excellent quality. We devote ourselves to product innovation and promote product upgrades with technological innovation, so that the Company will have long-term competitiveness in the future development. The Group has established a technology research institute to manage and integrate our technology research and development resources. We have formulated a series of internal systems to protect the intellectual properties and scientific and technological achievements of the Group. In addition to technological study and strengthening our own industrial structure, we will organize academic activities, actively communicate with peers, and make progress together with peers, thereby contributing to the technological innovation of the entire industry.

#### INTELLECTUAL PROPERTY MANAGEMENT

The Group strictly abides by the Patent Law of the People's Republic of China 《中華人民共和國專利法》, Regulations on the Implementation of the Patent Law of the People's Republic of China 《中華人民共和國專利法實施條例》, Copyright Law of the People's Republic of China 《中華人民共和國著作權法》, Regulations on the Implementation of the Copyright Law of the People's Republic of China 《中華人民共和國著作權法實施條例》 and other relevant national laws and regulations, based on which, we have formulated our own Intellectual Property Management Measures 《知識產權管理辦法》, to make full use of the laws to protect intellectual properties, strengthen intellectual property management, and protect the legitimate rights and interests of the state, enterprises and individuals. We tolerate no infringement of knowledge. During the Reporting Period, the Exploration & Surveying Institute promulgated the Intellectual Property Management Measures 《知識產權管理辦法》, which not only manages intellectual properties, but also stimulates the potential of employees for invention and creation. Rail Company maintains and protects internal and external intellectual property rights through the following practices:



Picture: Practices of Rail Company to maintain and protect internal and external intellectual property rights

## 1 OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (CONTINUED)

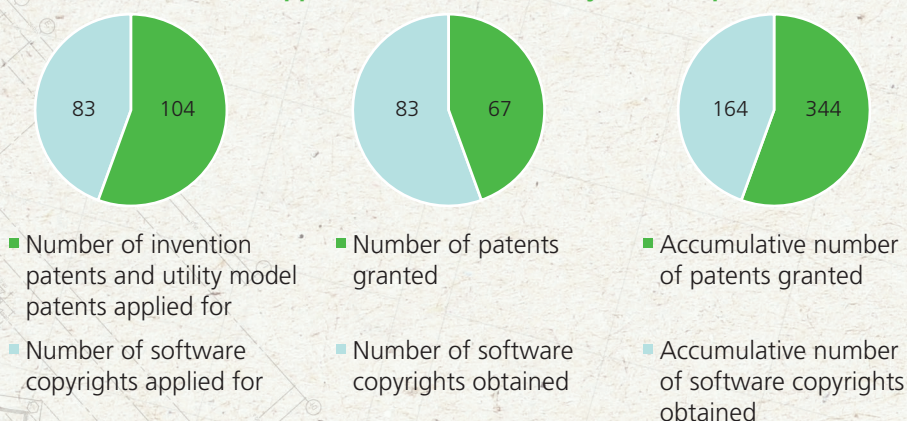
### SCIENTIFIC AND TECHNOLOGICAL INNOVATION MANAGEMENT

We have formulated the rules and systems such as the Administrative Measures for Science and Technology Innovation Projects 《科技創新項目管理辦法》, Implementation Rules for the Initiation of Science and Technology Innovation Projects 《科技創新項目立項實施細則》, Administrative Measures for the Reimbursement of Funds for Science and Technology Innovation Projects 《科技創新項目經費報銷管理辦法》 and Implementation Rules of the Company for the Offices of Well-known Experts 《公司知名專家工作室實施細則》, to achieve effective management on scientific and technological innovation. Rail Company has formulated the Regulations on the Management of Scientific and Technological Innovation 《科技創新管理規定》 to strengthen the management of scientific and technological innovation and promote scientific and technological innovation and technological progress.

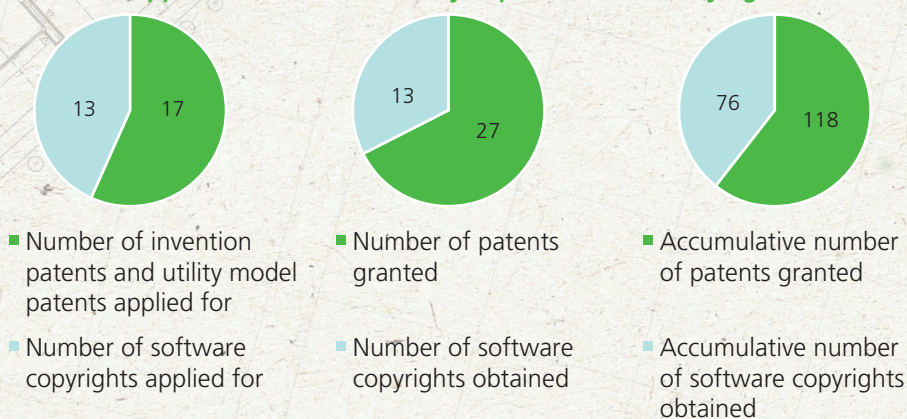
Through the unremitting efforts and work of the Group's employees, during the Reporting Period, the Group applied for 104 invention patents and utility model patents, and 83 software copyrights, and obtained 67 authorized patents and 83 software copyrights, with 344 authorized patents and 164 software copyrights in total. Exploration & Surveying Institute applied for 17 invention patents and utility model patents, and 13 software copyrights, and obtained 27 authorized patents and 13 software copyrights, with 118 authorized patents and 76 software copyrights in total. Rail Company applied for 10 invention patents and utility model patents, with 17 authorized patents in total.

## 1 OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (CONTINUED)

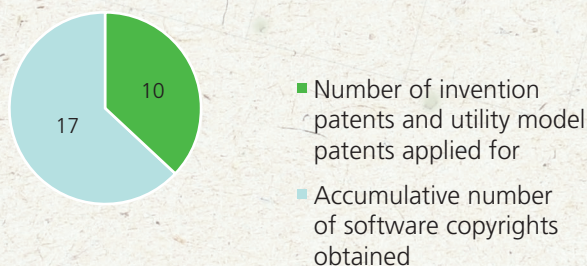
## Patents applied for and obtained by the Group



## Patents applied for and obtained by Exploration &amp; Surveying Institute



## Patents applied for and obtained by Rail Company



## Awards Granted in 2021

18th Tien-yow Jeme Civil Engineering Prize	Phase I Project of Zhengzhou South Fourth Ring Road to Zhengzhou South Station Suburban Railway
First Prize in 2021 China Award for Science and Technology in Construction	<ul style="list-style-type: none"> <li>Key Technology of Urban Rail Transit Rail Structure Assembly Construction and Its Application</li> <li>Key Technology for Controlling the Disturbance of Soft Soil Strata Engineering Construction on Neighboring Subway Tunnels and Its Engineering Application</li> </ul>

## 1 OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (CONTINUED)

### PROMOTION OF INDUSTRY EXCHANGES

In respect of its own business, the Group actively participates in major academic exchanges and undertakes technical seminars in the industry, continuously enhances its core competitiveness, and cooperates with partners to jointly promote the development of China's rail industry.

#### UCD Group organized the "2021 China Urban Rail Transit Key Technology Forum and the 30th Metro Academic Exchange Conference (2021中國城市軌道交通關鍵技術論壇暨第30屆地鐵學術交流會)"

On 27 November 2021, the "2021 China Urban Rail Transit Key Technology Forum and the 30th Metro Academic Exchange Conference" was hosted by the Rail Transit Branch of China Civil Engineering Society (中國土木工程學會軌道交通分會) and organized by Hangzhou Metro Group Co., Ltd. (杭州市地鐵集團有限責任公司) and Beijing Urban Construction Design & Development Group Co., Limited in Hangzhou.

With the theme of "Low-carbon Urban Rail, Smart Construction (低碳城軌、智慧建造)", the conference was held in an offline + online way. Nearly 50 experts, academicians and industry leaders gathered offline in Hangzhou for discussions. At the conference, a release ceremony was held for urban rail transit technology innovation and promotion projects, and 20 technical and 8 engineering projects were awarded and commended. During the conference, experts brainstormed, talked about the new direction of low-carbon development of rail transit, and demonstrated new achievements in innovative technologies and equipment. The forum received widespread attention, with tens of thousands of viewers watching the live broadcast online.



## 1 OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (CONTINUED)

### The Group participated in the 2021 Shenzhen Annual Meeting of China Urban Rail Transit Enterprise Leaders' Summit (中國城軌交通業主領導人峰會2021深圳年會)

The 2021 Shenzhen Annual Meeting of China Urban Rail Transit Enterprise Leaders' Summit was held on 14 October 2021, during which, we conducted extensive and friendly exchange with our peers on topics such as line network planning, construction planning, survey and design, digital transformation, and smart empowerment.

Centered around the theme of the annual meeting of "smart urban rail: digital transformation and high-quality development (智慧城軌：數字化轉型與高質量發展)", the main leaders from 47 urban rail transit enterprises across the country carried out in-depth interaction and exchange by actively facing up to the development trend of the industry, taking leadership of the industry, and focusing on hot-spot issues, thereby further playing the role of the China Urban Rail Transit Enterprise Leaders' Summit as an authority and a high-end interactive platform in the industry.



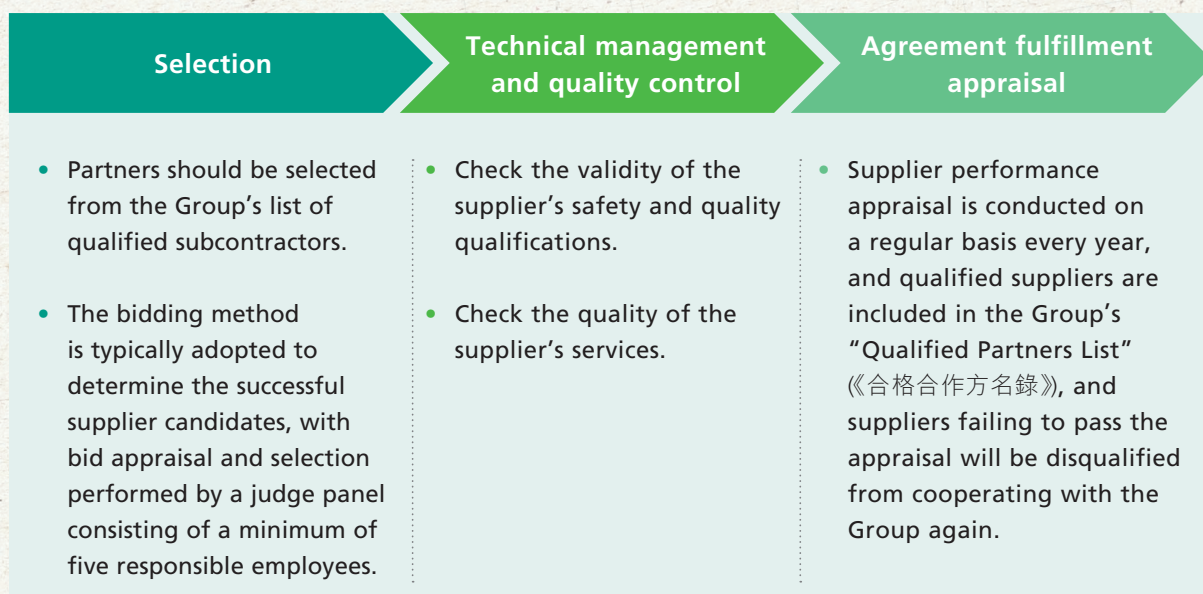
## 1.5 Supplier Management

The Group has always maintained good and close communication with suppliers to maintain the stability of the supply chain and promote sustainable development. We continuously improve the supply chain management system, divide suppliers into engineering service suppliers and design service suppliers, and formulate corresponding systems and control procedures for the two categories of suppliers, so as to further optimize the supplier structure and provide customers with products and services of better quality.

## 1 OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (CONTINUED)

### DESIGN SERVICE SUPPLIERS

In order to further standardize the process management of the projects for which the Group cooperates with external parties, we have formulated and released the External Cooperation Design Management Measures of Beijing Urban Construction Design & Development Group Co., Limited (Revised) 《北京城建設計發展集團股份有限公司外部合作設計管理辦法(修編)》, which sets out clear rules for the selection, technical management and quality control, and agreement fulfillment appraisal of cooperative design units, so as to meet the relevant requirements.



### ENGINEERING SERVICE SUPPLIERS

According to the specific situations of the engineering service suppliers, we have formulated the Rules on the Tendering Management for Construction Projects of Beijing Urban Construction Design & Development Group Co., Limited 《北京城建設計發展集團股份有限公司施工項目招標管理規定》 and the Rules on Subcontracting Management for Professional Projects of Beijing Urban Construction Design & Development Group Co., Limited 《北京城建設計發展集團股份有限公司專業工程分包管理規定》 and other rules and systems for the qualifications, environmental protection, occupational health and safety of the suppliers involved in engineering projects, such as material procurement, professional subcontracting, labor subcontracting and machinery leasing, to regulate the related work.

## 1 OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (CONTINUED)

### Before the subcontractor enters the workplace

Provide management procedures and/or related requirements for project quality, schedule, construction technology, environmental protection and occupational health and safety. Sign the Fire Protection Agreement (《消防保衛協議書》), Civilized Construction and Environmental Protection Management Agreement (《文明施工和環境保護管理協議書》) and Integrity Agreement (《廉政協議書》)

### Before the project starts

Supervise the on-the job training provided by the subcontractor to project related personnel

### In construction

Implement control procedures under the Control Procedure for Project Construction (《施工項目控制程序》), Management Procedure for Contract Review (《合同評審管理程序》), Risk Management Procedure (《風險管理程序》) and Tendering Management for Construction Projects (《施工項目招標管理規定》), and maintain job records.  
Regular evaluation of subcontractors.

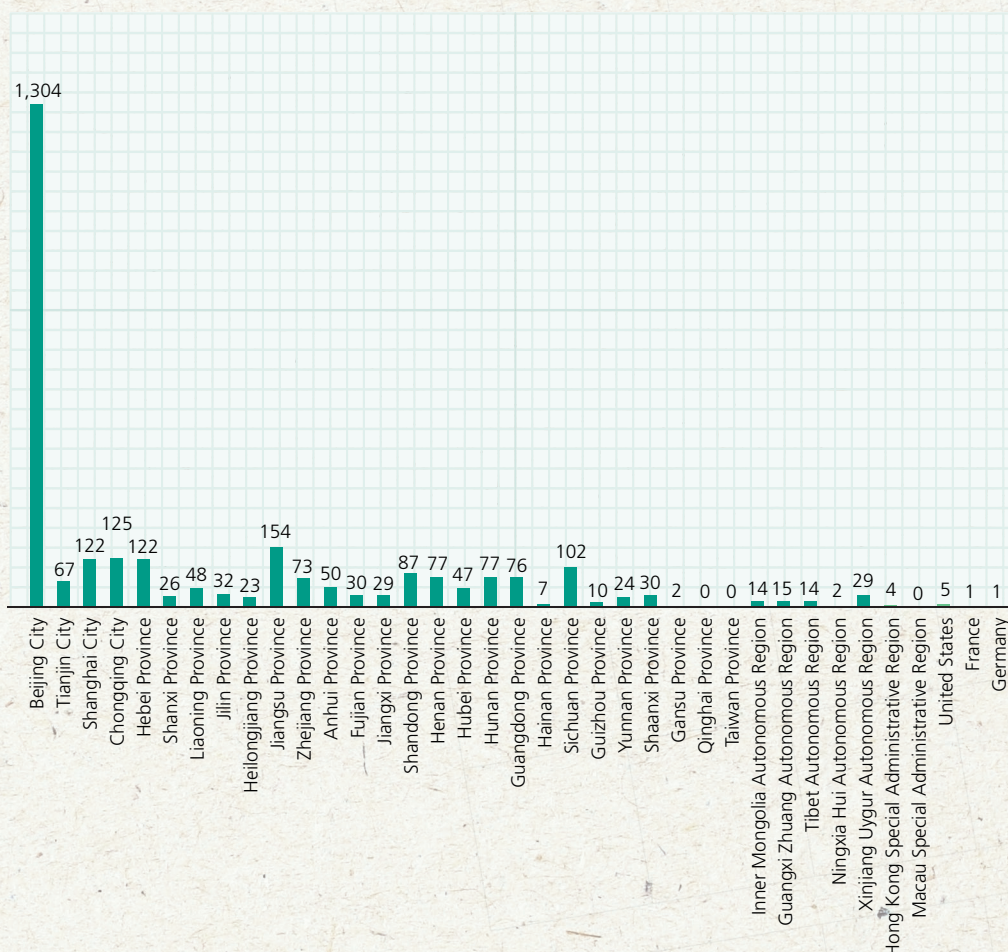
### After the project

Evaluate the performance of the subcontractor from the aspects of construction period and quality, and fill in the Comprehensive Evaluation Form of Project Subcontractor (《工程分包方綜合評價表》). The functional departments of the Group summarize the evaluation form of each subcontractor in January every year, and remove the subcontractors evaluated as unqualified from the list of qualified subcontractors.

## 1 OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (CONTINUED)

During the Reporting Period, the Group had 2,829 qualified suppliers in total, among whom we will select according to the procurement needs of our businesses. The regional distribution of the suppliers is as follows<sup>1</sup>:

**Number of suppliers by geographical region**



Picture: Suppliers by geographical region

Meanwhile, the Exploration & Surveying Institute and Rail Company strictly abide by the guidelines of the above internal systems, and continuously optimize the supplier environment and standardize related processes to prevent related risks. Moreover, we strictly control the qualification requirements, access standards and procurement standards of suppliers. When selecting suppliers, we give priority to suppliers who use environmental-friendly resources, advocate green and low-carbon concepts, and give full consideration to environmental protection, low-carbon recycling and resource conservation, so as to optimize the entire supplier pool of the Group and promote healthy competition among suppliers. Exploration & Surveying Institute implemented the Management Provisions on the Review and Management of Production Suppliers and the Approval Process for Subcontracting Applications of Beijing Urban Construction Exploration & Surveying Design Research Institute Co., Ltd. 《北京城建勘测设计研究院有限责任公司生产类供方评审管理及分包申请审批流程管理规定》, which further standardize the review of suppliers, the use of the List of Qualified Suppliers 《合格供方名录》, and the supervision of suppliers. Rail Company implemented the Implementation Rules for Professional Engineering Subcontracting Management 《专业工程分包管理实施细则》 to regulate recruitment, construction management and performance appraisal regarding professional engineering subcontractors based on its actual business needs, on top of subcontractor management by the Group.

<sup>1</sup> Number of suppliers by geographical regions is classified according to the locations where the headquarters of the suppliers are. Statistics includes the suppliers' data of the Institute, Exploration & Surveying Institute and Rail Company.

## 2 BUILD ON TEAM COHESION THROUGH EFFECTIVE STAFF CARE

**Material ESG issues addressed in this section are as follows:**

Policy of staff benefits	Protection of staff's interest	Staff training and career development
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We are willing to work together with an extremely talented workforce to realize the Group's corporate mission of "Design the City, Build the Future". To this end, we strive to provide staff care to gather outstanding talents with great gifts. We also have an efficient talent management system and a comprehensive training mechanism in place to provide employees with an equal and open development platform where they can fulfill their value.

### 2.1 Talent Management

**During the Reporting Period, the Group has strictly complied with the following laws and regulations related to remuneration and dismissal, recruitment and promotion, working hours, holidays, equal opportunities, diversity, anti-discrimination, and other benefits:**

Labor Law of the People's Republic of China (《中華人民共和國勞動法》)

Labor Contract Law of the People's Republic of China (《中華人民共和國勞動合同法》)

Regulation on the Implementation of the Employment Contract Law of the People's Republic of China (《中華人民共和國勞動合同法實施條例》)

Prohibition of Child Labor Provisions (《禁止使用童工規定》) and other national laws and regulations

#### EMPLOYMENT AND DISMISSAL

To ensure that the recruitment and dismissal work complies with the relevant provisions of the Labor Law of the People's Republic of China (《中華人民共和國勞動法》), we strictly follow the procedures for recruitment, induction, employment and resignation.

We conduct recruitment information release, resume screening, recruitment testing and other work strictly in accordance with the Group's recruitment measures to ensure that the personnel recruited meet the requirements for the relevant positions. We strictly implement the Administrative Measures for the Employment (《員工入職管理辦法》) to carry out the information review process, require each candidate to provide a valid ID card to verify their identity and age, and prevent child labor.

## 2 BUILD ON TEAM COHESION THROUGH EFFECTIVE STAFF CARE (CONTINUED)

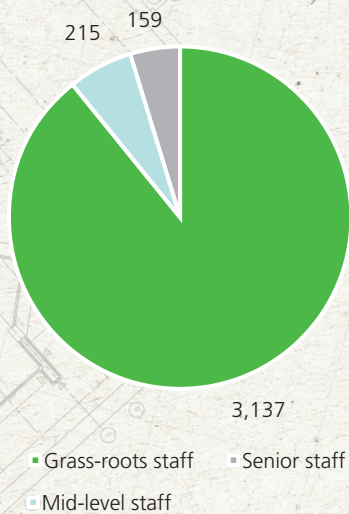
Following the principles of free will, equality and consensus, we enter into an employment contract with every new employee, and resolutely avoid any forms of forced labor. In the event that an instance of forced labor or child labor occurs, the Group investigates into the case following relevant procedures. Once an illegal offense is constituted, as a zero-tolerance policy, the case will be transferred to the judicial authorities for further investigation. Where the Group or an employee proposes to rescind, or not to renew, the employment contract, we exercise the standard departure process, work handover process and severance arrangements prescribed in the administrative measures for resignation to protect the rights and interests of both parties.

Recruitment and Dismissal Measures of UCD	
General principles	Labor Law of the People's Republic of China 《中華人民共和國勞動法》
Recruitment	Rules of Beijing Urban Construction Design & Development Group Co., Limited on Recruitment Management 《北京城建設計發展集團股份有限公司招聘管理辦法》
Induction	Administrative Measures for the Employment of Employees of Beijing Urban Construction Design & Development Group Co., Limited (Interim) 《北京城建設計發展集團股份有限公司員工入職管理辦法(暫行)》
Employment	Labor Contract Management Measures of Beijing Urban Construction Design & Development Group Co., Limited 《北京城建設計發展集團股份有限公司勞動合同管理辦法》
Resignation	Administrative Measures for the Resignation of Employees of Beijing Urban Construction Design & Development Group Co., Limited (Interim) 《北京城建設計發展集團股份有限公司員工離職管理辦法(暫行)》

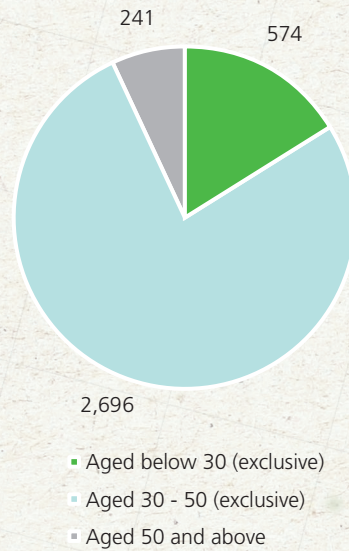
## 2 BUILD ON TEAM COHESION THROUGH EFFECTIVE STAFF CARE (CONTINUED)

As of the end of the Reporting Period, UCD, Exploration & Surveying Institute and Rail Company had a total of 3,511 employees (all full-time employees). The breakdown of total employees by employee type, age, gender and region<sup>2</sup> is listed below:

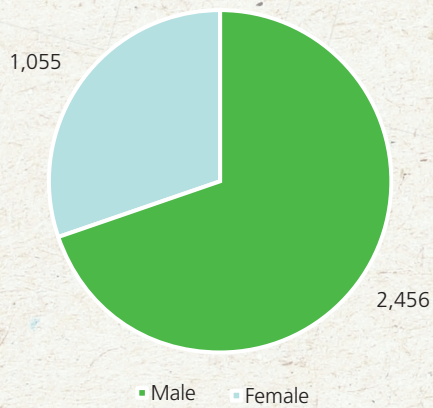
Employee counts by employee type



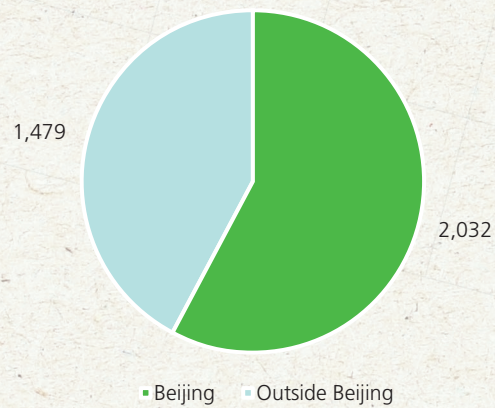
Employee counts by age group



Employee counts by gender



Employee counts by region



<sup>2</sup> Employee counts by region is categorized by the location of the companies where the labor contracts were signed.

## 2 BUILD ON TEAM COHESION THROUGH EFFECTIVE STAFF CARE (CONTINUED)

Turnover rate<sup>3</sup> of the Group's employees by employee type, age, gender and region are shown as follows:

Employee type		Turnover rate
By employee type	Grass-roots staff	5%
	Mid-level staff	2%
	Senior staff	2%
By age	Aged below 30 (exclusive)	6%
	Aged 30 – 50 (exclusive)	5%
	Aged 50 and above	4%
By gender	Male	5%
	Female	4%
By region	Beijing	5%
	Outside Beijing	5%

### REMUNERATION AND PROMOTION

We implement an efficient talent management system to provide employees with compensation and promotion incentives. We strictly follow the management and accounting of employee remunerations and benefits to make clear specifications, and provide remunerations and benefits including wages, bonuses, allowances and subsidies, welfare fees, social insurance, housing provident fund, trade union funds, and education funds.

We have established clear systems for post establishment, post evaluation, post adjustment, talent management and incentives, clarify the rank system, and strengthen talent training. We strictly follow the standards and procedures for employee promotion, provide post promotions that meet employees' wishes and can demonstrate their working ability, motivate employees to play their value, and bring together excellent talent teams.

Exploration & Surveying Institute and Rail Company follow the remuneration management and promotion systems in line with their actual needs, determine employees' salaries and offer promotion opportunities according to their performance and rank to provide employees with a development platform where they can fulfill their value, and further enhance employee motivation.

<sup>3</sup> The employee turnover rate is calculated by dividing the number of employees belonging to a certain category during the Reporting Period by the total number of employees in the category at the end of the Reporting Period.

## 2 BUILD ON TEAM COHESION THROUGH EFFECTIVE STAFF CARE (CONTINUED)

Systems Relating to Remuneration Management	
The Institute	Measures for Employee Remuneration Management and Calculation of Beijing Urban Construction Design & Research Institute 《北京城建設計研究總院職工薪酬管理與核算辦法》
	Administrative Measures for Positions and Ranks of Beijing Urban Construction Design & Research Institute 《北京城建設計研究總院崗位及職級管理辦法》
Rail Company	Remuneration Management System (Trial) of Beijing Urban Rail Transit Construction Engineering Co., Ltd. 《北京城建軌道交通建設工程有限公司薪酬管理制度（試行）》
	Measures of Beijing Urban Rail Transit Construction Engineering Co., Ltd. for the Management of Staff Benefit Bonuses (Trial) 《北京城建軌道交通建設工程有限公司員工效益獎金管理辦法（試行）》
Exploration & Surveying Institute	Remuneration Management System of Beijing Urban Construction Exploration & Surveying Design Research Institute Co., Ltd. 《北京城建勘測設計研究院有限責任公司薪酬管理制度》
	Rules for the Implementation of Remuneration Management of Beijing Urban Construction Exploration & Surveying Design Research Institute Co., Ltd. 《北京城建勘測設計研究院有限責任公司薪酬管理實施細則》

### WORKING HOURS AND HOLIDAYS

We abide by the Labor Law of the People's Republic of China 《中華人民共和國勞動法》 and strictly implement the Group's management measures for employee attendance and leave to standardize the management of working hours, attendance, leave and holidays and protect the basic interest of employees.

For positions with different needs, we implement standard working hours and flexible working hour system. We regularly submit an application for flexible working hour system to relevant authorities each year, and implement the same after approval and publicity by the regulatory department. The working hours of employees under standard working hours and flexible working hour system are both 8 hours. When the employees under the standard working hours system have overtime requirements, they can fill in the Overtime Approval Form 《加班審批表》, and the Group will pay overtime wages to employees as required to ensure reasonability of working hours and remunerations.

On the basis of public and statutory holidays stipulated by the government, we provide employees with sick leave, casual leave, marriage leave, home leave, funeral leave, maternity leave, work-related injury leave, public holiday and annual leave. In particular, we also provide twenty to thirty days of family leave for employees in response to their needs to reunite with their families.

## 2 BUILD ON TEAM COHESION THROUGH EFFECTIVE STAFF CARE (CONTINUED)

Systems Relating to Employee Attendance, Leave and Holidays	
General principles	Labor Law of the People's Republic of China 《中華人民共和國勞動法》
Work attendance, leave and holidays	Rules on Management of Work Attendance, Leave and Holidays of Beijing Urban Construction Design & Research Institute Co., Ltd. 《北京城建設計研究總院有限公司員工考勤與休假管理辦法》

### EQUAL OPPORTUNITY, DIVERSITY AND ANTI-DISCRIMINATION

We strictly abided by the Labor Law of the People's Republic of China 《中華人民共和國勞動法》 and the Labor Contract Law of the People's Republic of China 《中華人民共和國勞動合同法》 to provide employees with equal recruitment and promotion opportunities, and treat employees equally regardless of their gender, ethnicity, religious belief, disability, nationality, etc. We value the candidate's professional skills, qualifications and whether they are fit for the Group's values during recruitment, and adopt the remuneration allocation method of "equal pay for equal work" based on employees' position, ability, work intensity and contribution level, and we implement the system of equal pay for equal work, in order to protect the interests of our employees.

### STAFF BENEFITS

We exert solid efforts in promoting the protection of the legitimate rights and interests of employees, and adhere to the democratic management system and the factory affairs disclosure system in the basic form of employees' congress. We pay attention to the needs of employees, create employee benefits, and enhance employees' sense of belonging; serve employees wholeheartedly, improve their cultural life, and unite the strength of the Group.

## 2 BUILD ON TEAM COHESION THROUGH EFFECTIVE STAFF CARE (CONTINUED)

### The Group exerted the functions of the labor union to innovate in the model of employee care

In 2021, the labor union of the Group innovated in the model of employee care, served employees wholeheartedly to improve their cultural life and promote production, and carried out a series of activities:

- Continuing to implement the Group's "2+N" home building model to build a "Worker's Home" and a "Worker's House".
- Continuing the series of activities of "sending blessings, sending health, sending warmth, sending coolness and sending culture" for a long time, with an annual investment of nearly RMB10 million.
- Paying attention to employees' life in multiple dimensions and continuing to send out annual park tickets, birthday cakes, movie tickets, etc. to all employees. Distributing New Year's Day, Spring Festival, Labor day and National Day gifts under a warm-hearted service mode to employees' homes and hands, thereby providing "one-stop" and "zero distance" services for the staff. Sending blessings to employees who give birth or get married, and distribute souvenirs to retired employees. We insist that sick employees must be visited, and seriously ill employees should be paid special attention to and cared. The Group had sent letters of condolence and condolence money to 50 employees on the occasions of New Year's Day and Spring Festival. We completed the applications of 3 employees to the labor union for the relief and condolence fund for the in-service employees in difficulty, and also completed the declaration of 1 employee as an in-service employee in difficulty to the labor union of the UCD Group, which reflected the Group's concern for the employees in difficulty.
- The labor union of the Group visited more than 20 project groups, including key projects and project groups in Beijing (onsite) and branches and key project groups outside Beijing (online), with an investment of more than RMB300,000. Rail Company invested RMB200,000 to carry out the activity of "cooling off" for more than 4,300 builders of 18 projects under construction, so as to help prevent heatstroke and reduce temperature and achieve full production.
- Integrating the "Cloud" series of activities with brand events. The Group held the 8th "Health Cup" table tennis and badminton brand competitions, and organized "Cloud" walking, "Cloud" reading, "Cloud" rope skipping, "Cloud" painting and calligraphy activities, thereby greatly enriching the cultural and sports life of employees.
- Actively safeguarding the rights and interests of female employees, and completing the March 8th Festival series of activities themed "Spring Flowers Blooming Happily Together". Over the years, we have been distributing radiation protection suits to female employees during pregnancy, and together with the administration units, we have provided the "March 8th" holiday expenses for all female employees to care for female employees.



Picture: March 8th Festival  
– Walking and Exchange  
Activity in Gubei Water Town



Picture: Cloud Walking Activity  
– Recapturing the journey of  
the first national congress of  
the CPC by walking along the  
Nanhu Road and singing CPC  
songs



Picture: Cloud Reading Activity  
– Absorbing the strength to  
advance forward by reading  
CPC classics

## 2 BUILD ON TEAM COHESION THROUGH EFFECTIVE STAFF CARE (CONTINUED)

### 2.2 Craftsmanship

#### TRAINING POLICY

We actively organize employee training to promote the coordinated development between employees and the Group. In order to enhance the working skills of employees, we have standardized the employee training management process from investigation of training needs, formulation of training plans, management of training files, training assessment and evaluation to training summary and improvement.

We clearly understand the training needs of employees, and formulate the Annual Training Plan of the Company 《公司年度培訓計劃方案》 according to the development needs of employees and the Group. We collect training feedback from employees in a timely manner every year and make a summary and analysis on that basis, as a reference for improving the training plan for the next year, and continuing to optimize our training content.

#### Training-related Systems

##### General principles

Administrative Measure for Training of Beijing Urban Construction Design & Development Group Co., Limited 《北京城建設計發展集團股份有限公司培訓管理辦法》

Administrative Measure of Beijing Urban Construction Design & Development Group Co., Limited for Internal Lecturers 《北京城建設計發展集團股份有限公司內部講師管理辦法》

Our trainings are divided into company-level trainings and specialized trainings with full consideration of different training needs, training content, and training objects to ensure that the trainings cover different employees. We encourage all directors to participate in trainings such as "Training on Information Disclosure", "Training on Hong Kong Listing Rules", "Training on ESG Corporate Governance Regulations" and "Training on Connected Transactions", and regularly provide directors with a brief introduction about the latest changes and development of the Group's business, operations, relevant legislative and regulatory environment. In 2021, the training rate of the Board members was 100% with 18 training hours per capita.

## 2 BUILD ON TEAM COHESION THROUGH EFFECTIVE STAFF CARE (CONTINUED)



Picture: Board training

### TRAINING ACTIVITIES

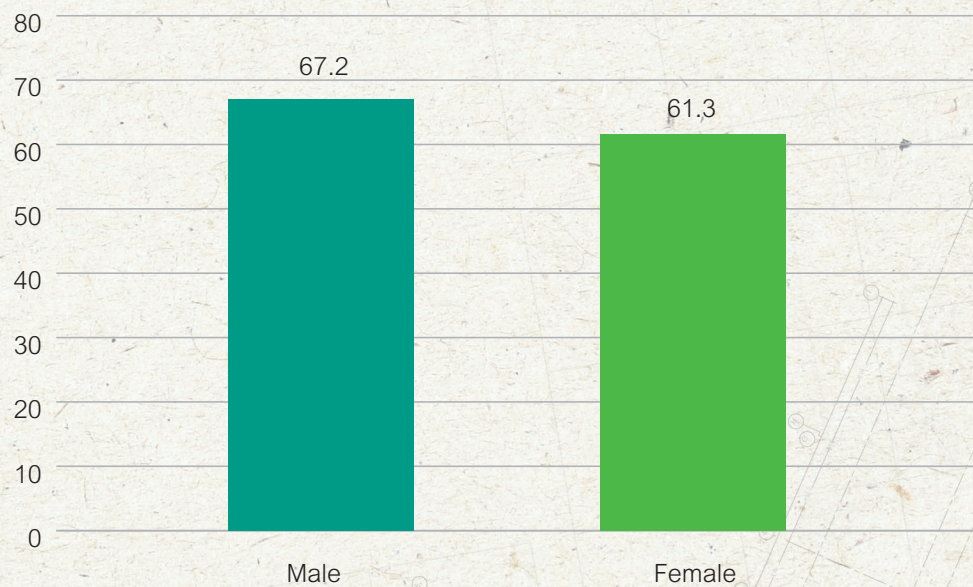
In order to strictly standardize the Group's operation process and give play to the Group's role in social governance, we carried out a wealth of training activities to improve employees' work performance and comprehensive qualities, strengthen employees' sense of identity, improve employees' loyalty, and cultivate employees' adaptability and flexibility, thereby enabling employees and the organizations to grow in tandem. In 2021, the total training hours of the Group's staff was 236,109 hours and the training rate of the staff was 100%.

## 2 BUILD ON TEAM COHESION THROUGH EFFECTIVE STAFF CARE (CONTINUED)

Training hours of staff by employee type



Average training hours of staff by gender



## 2 BUILD ON TEAM COHESION THROUGH EFFECTIVE STAFF CARE (CONTINUED)

### The Company participated in a training activity provided by expert

On 7 December, Beijing Urban Construction Group invited Chen Xiangsheng, academician of the Department of Civil, Water Conservancy and Construction Engineering, Chinese Academy of Engineering, to provide an expert lecture training activity on "The Lowest Carbon Strategy for Underground Space Construction 《基础设施(轨道交通)建造低碳化战略与实践》" at the Company. As a required course for professional and technical personnel of rail transit, nearly 700 people from various units of the Company participated in the training simultaneously either on-site or through video. During the training, Academician Chen Xiangsheng focused on expounding the low-carbon infrastructure construction and the relevant operation and maintenance strategies, shared green and low-carbon technologies and applications of urban rail transit, and answered the questions raised by and exchanged with on-site trainees. Through this training, the designers have had a deeper and more systematic understanding of urban rail transit construction under the background of carbon neutrality and carbon peak, and highly praised this lecture.



Picture: The Company participating in an academic lecture by expert

## 2 BUILD ON TEAM COHESION THROUGH EFFECTIVE STAFF CARE (CONTINUED)

### Exploration & Surveying Institute organized series of trainings to expedite the growth of new employees

In order to facilitate new employees to understand the Company's culture and profile, glorious history and outstanding performance, expedite the rapid growth of new employees, and help new employees complete the role transition from students to employees as soon as possible, in July 2021, Exploration & Surveying Institute organized a number of training activities, such as the face-to-face meeting between new employees and the leaders, outdoor development training for new employees, the first lesson for new employees, and the dean symposium for new employees, help new employees improve their job competencies and lay a foundation for teamwork for the upcoming project training.



Picture: Centralized induction training



Picture: Training of new employees



Picture: Outdoor training

## 2 BUILD ON TEAM COHESION THROUGH EFFECTIVE STAFF CARE (CONTINUED)

### 2.3 Anti-corruption

**During the Reporting Period, the Group has strictly complied with the following laws and regulations related to preventing bribery, extortion, fraud and money laundering:**

Criminal Law of the People's Republic of China 《中華人民共和國刑法》

Anti-unfair Competition Law of the People's Republic of China 《中華人民共和國反不正當競爭法》

Company Law of the People's Republic of China 《中華人民共和國公司法》

and other national laws and regulations

We strictly abide by the Punishment Regulations for Managements Violations and Non-compliance of Beijing Urban Construction Design & Development Group Co., Limited 《北京城建設計發展集團股份有限公司管理人員違紀違規行為處分規定》, the Anti-fraud Management System of Beijing Urban Construction Design & Development Group Co., Limited 《北京城建設計發展集團股份有限公司反舞弊制度》 and the Management Regulations on the Internal Audit of Beijing Urban Construction Design & Development Group Co., Limited 《北京城建設計發展集團股份有限公司內部審計管理規定》, requiring employees to strictly abide by business ethics and conduct and keep integrity, so as to promote the sustainable development of the Company. We will strictly punish the employees involved in corruption, extortion, fraud, money laundering and other violations of integrity, including taking advantage of power or position to seek benefits from others, illegally accepting or giving gifts, money and consumption, etc.

During the Reporting Period, we actively promoted our member companies to put into practice the anti-corruption work. In order to oppose unfair competition, maintain economic order, protect the legitimate rights and interests of both parties, and promote common development, we organized employees to sign a letter of commitment to integrity, in attempt to jointly create a fair, just, open and orderly business environment. Exploration & Surveying Institute formulated the Opinions on the Division of Work Tasks for Integrity Construction and Anti-corruption in 2021 《2021年黨風廉政建設和反腐工作任務分工意見》, Exploration & Surveying Institute's Work Plan for Carrying out Special Remediation for Violating the Spirit of the Eight Central Regulations and "Relying on and Seeking Benefits from Enterprises" (靠企吃企) 《勘測院關於開展違反中央八項規定精神和“靠企吃企”問題專項整治的工作方案》, Work Plan for Carrying out Supervision and Inspection for the Four Problems of Formalism, Bureaucracy, Hedonism and Extravagance during 2022 New Year and Spring Festival 《2022年元旦、春節期間開展“四風”監督檢查的工作方案》, Key Points for 2021 Disciplinary Inspection of Exploration & Surveying Institute 《勘測院2021年紀檢工作要點》, and Rail Company formulated the Opinions on the Division of Major Work Tasks for Integrity Construction and Anti-Corruption in 2021 《2021年黨風廉政建設和反腐敗工作主要任務分工意見》, the Implementation Measures for the Management of Remunerations and Business Expenditures of Leaders 《領導人員履職待遇、業務支出管理實施辦法》 and other anti-corruption systems. In 2021, the total training hours of the Group on anti-corruption policies and procedures was 120 hours, and 6 directors, 23 management members and 6,380 employees participated in the trainings.

We strictly abide by the Management Measures for Clues of Discipline Inspection and Supervision of Beijing Urban Construction Group Co., Ltd. 《北京城建集團有限責任公司紀檢監察問題線索管理辦法》, and have set up a violation report mailbox, email and telephone, and obtain information on violations of regulations through supervision, disciplinary supervision, audit and tour inspection. According to the requirements, we manage clue materials in a centralized and unified manner, establish management models such as registration, establishment of account books, and personnel accountable, so as to ensure that all the regulatory and

## 2 BUILD ON TEAM COHESION THROUGH EFFECTIVE STAFF CARE (CONTINUED)

disciplinary violations reported are properly handled. For the confidentiality of information regarding the clues, we strictly prohibit unauthorized publication of relevant information or content, to protect the rights and interests of the people involved. During the Reporting Period, the Group did not receive any reported cases of corruption, extortion, fraud and money laundering.

### Exploration & Surveying Institute held a meeting to promote comprehensive and strict governance of the party

In order to exert solid efforts on integrity construction and anti-corruption, in May, Exploration & Surveying Institute held the 2021 Work Conference on Comprehensive and Strict Party Governance (Party Building), at which the Implementation Plan for the Rectification of Problems Reflected by the Task Force of the Group's Disciplinary Committee 《關於集團紀委專案組反饋問題整改的實施方案》 was read out. The activity further improved the political position of problem rectification, requiring to achieve "allocating responsibility to specific person" during the rectification, and continuously improving the quality and level of comprehensive and strict party governance.



Pictures: Work Conference of Exploration & Surveying Institute on Comprehensive and Strict Party Governance (Party Building)

## 2 BUILD ON TEAM COHESION THROUGH EFFECTIVE STAFF CARE (CONTINUED)

### Rail Company organized warning education and training to learn from and promote reform based on cases

In November, Rail Company carried out the warning education and training activity of "Taking Cases as a Mirror and Promoting Reform Based on Cases (以案为鉴以案促改)", where the participants watched the warning education films of "The 'Flood' of Greed 《贪欲的洪水》", "Self-Destruction of the 'Golden Mountain' 《自毁'金山'》" and "Sober Up Time 《酒醒时分》", conveying the spirit of the "Taking Cases as a Mirror and Promoting Reform Based on Cases" warning education meeting of the State-owned Assets Supervision and Administration Commission of Beijing City and the UCD Group, so as to urge the party members and cadres to take the cases as a mirror, to promote reforms based on the cases, and to consistently promote the comprehensive and strict party governance in depth, thereby providing a strong political guarantee for the high-quality development of the Group.



Picture: Rail Company Organizing a Warning Education Training of "Taking Cases as a Mirror and Promoting Reform Based on Cases"

### 3 ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION

#### Material ESG issues addressed in this section are as follows:

Discharge and management of pollutants	Discharge and management of waste	Management of energy utilization
Management of water resource utilization	Discharge and management of greenhouse gas	Green office policy management

With the national goals of “carbon neutrality” and “carbon peak” put forward, circular, green and low-carbon development will become the development focus of the entire society. UCD actively responds to the national call for green environmental protection, and fully puts into practice the requirements of national and local policies for ecological and environmental protection. To this end, we continue to improve the environmental management system, maintain green office, advocate food conservation, promote green construction, protect biodiversity, continuously improve the level of environmental management and ecological environmental protection, practice the development concept of “clear waters and green mountains are as valuable as mountains of gold and silver (绿水青山就是金山银山)” with practical actions, and strive to build a modernization where man and nature coexist in harmony.

#### 3.1 Environmental Protection Goals

The Group attaches great importance to the impact on the natural environment during business operations, and strives to promote feasible environmental protection measures, formulate environmental protection goals, reduce the impact of business operations on the natural environment, and promote the sustainable development of the Group. At this stage, the places where the Group's business may have environmental impacts are existing office spaces and construction sites. In order to further reduce our impact on the natural environment, we have established the following environmental goals:



Implementing garbage classification and recycling at office spaces with legal disposal rate of hazardous waste reaching 100%;



Ensuring that the sewage, dust and solid waste discharged meet the standards, preventing major environmental pollution accidents at construction sites, and handling the waste according to the principles of recycling, harmlessness and reduction to avoid waste of resources;



Achieving zero major environmental incident, with waste water, exhaust gas, air pollutant emission and noise control meeting local requirements.

### 3 ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION

#### 3.2 Climate Change

Climate change is a major global challenge facing mankind today. UCD attaches great importance to the issue of climate change, make response to climate change with reference to the information disclosure framework of the Task Force on Climate-related Financial Disclosure (TCFD), regularly identifies and analyzes climate risks and opportunities in the course of operation, and formulates plans and actions in response to climate risks to minimize the negative impacts of climate change.

UCD's Identification of and Response to the Risks of Climate Change			
Risks of climate change		Potential impact	Countermeasures
Physical risks	Acute risks	Under the macro background of climate change, the probability and frequency of extreme weather encountered in the Group's construction and survey activities have increased, and extreme weather events such as extreme rainfall, typhoons, and floods may submerge rail construction projects, resulting in irreversible consequences. In addition, extreme weather will also have an impact on the construction progress of the projects, which may result in an increase in construction costs.	<ul style="list-style-type: none"> <li>Emphasizing safety management and risk prevention during the construction process, purchasing insurance for relevant personnel, equipping with safety equipment, and paying attention to the health impact caused by physical climate risks.</li> <li>Formulating detailed emergency response plans for extreme weather, and conducting regular maintenance of construction equipment.</li> </ul>
	Chronic risks	Chronic risks can manifest as gradual changes in temperature and rainfall. With the increase in the number of days with heavy rainfall, maximum rainfall, extremely cold and extremely hot days during the year, the Group's construction and the normal operation of the Group's office spaces will be affected.	<ul style="list-style-type: none"> <li>The Group fully considers the physical risks of climate change in project management, engineering construction and daily office operation, and strictly follows the requirements of the Group's emergency management measures. On the one hand, the Group tests the equipment in advance according to the weather forecast, and on the other hand, under extreme weather conditions such as extreme rainfall, floods and typhoons, the Group immediately organizes waterlogging prevention work and emergency drainage work to reduce the impact of extreme weather on construction.</li> </ul>

### 3 ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION

UCD's Identification of and Response to the Risks of Climate Change			
Risks of climate change		Potential impact	Countermeasures
Transmission risks	Policy risks	<p>The government will issue more and more documents related to climate change and refine the management requirements for the industry. In 2021, the Ministry of Ecology and Environment, the State Council and other departments issued a series of policies such as the Guiding Opinions on Coordinating and Strengthening the Work Related to Addressing Climate Change and Ecological Environmental Protection (《關於統籌和加強應對氣候變化與生態環境保護相關工作的指導意見》), the Action Plan for Carbon Peaking Before 2030 (《2030年前碳達峰行動方案》), the Guiding Opinion on Accelerating the Establishment and Improvement of Green, Low-Carbon and Circular Economic Development System (《關於加快建立健全綠色低碳循環發展經濟體系的指導意見》) and the Administrative Measures for the Trading of Carbon Emission Right (Trial) (《碳排放權交易管理辦法(試行)》). With the successive implementation of these systems and management requirements, the Group will face higher policy compliance risks.</p>	<ul style="list-style-type: none"> <li>Considering climate change factors in the stages of project investment, material procurement, and construction;</li> <li>Increasing the investment in green construction and safety assurance for rail construction and expansion projects, and continuously enhancing safety assurance capabilities to withstand long-term climate change and climate disasters.</li> <li>Setting short-, medium- and long-term carbon peaking and carbon neutrality goals and strategies, regularly disclosing the progress of GHG emission reduction goals, and continuously optimizing the methods for GHG emission reduction.</li> </ul>
Opportunities	Opportunities arising from climate change	<p>Climate change will promote the sustainable transformation of transportation. As one of the green travel methods, subways will be developed by more and more cities, which will bring business opportunities to the Group.</p>	<ul style="list-style-type: none"> <li>Comprehensively enhancing the technical and management capabilities of the Group to capture development opportunities.</li> </ul>

### 3 ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION

#### 3.3 Green Office

Fully adhering to the concept of “green office, energy conservation”, UCD actively promotes green office, and leads a green and low-carbon life. Through a series of environmental management policies and measures, we actively reduce the environmental impact of emission pollution and resource consumption from the workplace. In 2021, we established the environmental protection rules of “green office” in terms of reducing the energy consumption of electrical equipment, saving water, reducing waste, recycling resources and improving the indoor environment, and issued a green office proposal, calling on employees to strive to be pioneers and practitioners of “green office, low-carbon life”.

##### The Group's Green Office Policies

Beijing Urban Construction Design & Research Institute	Environmental Management Plan 《環境管理方案》
	Measures for Management of Energy and Resource Conservation of the Headquarters 《公司能源資源節約管理辦法》
	Measures for Management of Energy and Resource Conservation of Branches 《分院能源資源節約管理辦法》
Exploration & Surveying Institute	Green Office Management System of Beijing Urban Construction Exploration & Surveying Design Research Institute Co., Ltd. 《北京城建勘測設計研究院綠色辦公室管理制度》
	“Green Office” Proposal of Exploration & Surveying Institute 《勘測院“綠色辦公”倡議書》
Rail Company	Measures for Energy Conservation and Emission Reduction in Offices of Beijing Urban Rail Transit Construction Engineering Co., Ltd. 《北京城建軌道交通建設工程有限公司機關辦公區節能減排措施》

### 3 ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION

#### Highlights of Green Office Initiatives

Save electricity	<ul style="list-style-type: none"> <li>• Save electricity consumed in lighting: use natural lighting in priority in corridors in office buildings to reduce the electricity consumption of lamps; carry out energy-saving propaganda, post energy-saving signs, and guide employees to turn off the lights when leaving; switch off lighting and equipment during non-working hours</li> <li>• Actively promote energy-saving lighting technologies such as solar lamps</li> <li>• Purchase office equipment with energy efficiency labels in priority, and turn off unused office equipment in real time after getting off work</li> <li>• Save electricity consumed by air conditioners, and make full use of natural ventilation to reduce electricity consumed by air conditioners; strictly implement the setting standards for indoor air-conditioning temperature to be higher than 26℃, and turn off the air-conditioning equipment in time after getting off work</li> </ul>
Improve water efficiency	<ul style="list-style-type: none"> <li>• Strengthen the inspection, maintenance and rectification of the water pipe network and water supply equipment, regularly inspect, examine and replace the aging water supply pipelines and equipment, and strictly prohibit the phenomenon of evaporating, emitting, dripping or leaking water and long-running water</li> <li>• Reduce the water output of the faucets, advocate energy saving and water saving, and put up water saving publicity signs around the water switches</li> <li>• Install sensor faucets in bathrooms to reduce water waste</li> <li>• Encourage the use of phosphorus-free detergents and degradable cleaning products as much as possible to protect water resources and reduce water pollution.</li> </ul>
Reduce waste	<ul style="list-style-type: none"> <li>• Store, recycle and label waste by type, and sign transportation agreements with professional third parties</li> <li>• Carry out the activity of "garbage classification, a duty in front of garbage cans (垃圾分类·桶前值守)" for the removal and handling of kitchen waste</li> <li>• Recycle hazardous waste (such as batteries, toner cartridges, ink cartridges, etc.) on a centralized basis</li> </ul>

### 3 ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION

#### Highlights of Green Office Initiatives

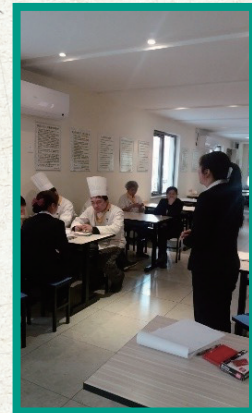
Optimize resource utilization	<ul style="list-style-type: none"> <li>• Advocate paperless office, make full use of online office platform to publish information and transmit data, or reduce the consumption of copy paper by circulating documents</li> <li>• Promoting paperless field measurement</li> <li>• Try front-back printing as much as possible, and advocate the recycling of paper used single-side when printing and copying; set up a waste paper recycling box next to the printer to encourage employees to recycle office paper</li> <li>• Promote the use of recycled paper, pens with replaceable cores, toner cartridges, rechargeable batteries and other recyclable items</li> </ul>
Green travel	<ul style="list-style-type: none"> <li>• Continuously improve the driving skills of drivers, strengthen vehicle maintenance, and reduce abnormal wear and tear of vehicle parts</li> <li>• Advocate for walking or biking and buy vehicles with low gas consumption</li> <li>• Make use of electronic means, such as Internet, telephone, video conference, etc., to reduce unnecessary travel</li> <li>• Arrange suitable vehicles for group business activities to reduce air pollution</li> </ul>

In the course of operation, UCD firmly resists wasteful extravagance, advocates civilized and rational catering consumption methods for employees, continuously cultivates employees to practice frugal living habits, and establishes a good corporate atmosphere of diligence and thrift. To this end, the Organization Department of the Party Committee and the Administration and Security Department of the Group jointly launched the activity of "Stop Food Waste, Clear Your Plate", thoroughly implemented the relevant provisions of the Anti-Food Waste Law of the People's Republic of China 《中華人民共和國反食品浪費法》, and promoted the philosophy of "saving food and preventing waste" to reduce food waste.

### 3 ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION

#### Exploration & Surveying Institute actively carried out the "Clear Your Plate" campaign

In 2021, Exploration & Surveying Institute actively responded to the work arrangement of superior authorities and formulated a series of action plans for the canteens to eliminate waste and encourage savings. In terms of food procurement, Exploration & Surveying Institute comprehensively improved the level of refined management of canteens to ensure precision at the source, rationally determined the purchase amount, and calculated and quantitatively purchased ingredients according to the number of diners, so as not to waste or hoard ingredients; reduced the purchase and use of one-time kitchen utensils, and called on employees to provide all kinds of sterilized tableware in a timely manner when dining in the canteens to reduce the use of packages and disposable tableware; strengthened chef training to improve chefs' skills to rationally deploy and arrange meals, and scientifically arranged the number of meals, made the best use of the raw materials used as much as possible to avoid leftover food. In addition, Exploration & Surveying Institute also organized training for canteen staff, strictly implemented waste classification, reduced kitchen waste throughout the process, and posted publicity signs in conspicuous places in the canteens to encourage and remind diners to take meals according to their needs and eat in a civilized manner, and guide employees to consciously save food with practical actions.



Picture Training of Exploration & Surveying Institute on chefs' skills

### 3 ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION

#### 3.4 Green Construction

The Group strictly abides by the relevant laws and regulations such as the Environmental Protection Law of the People's Republic of China 《中華人民共和國環境保護法》, Atmospheric Pollution Prevention and Control Law of the People's Republic of China 《中華人民共和國大氣污染防治法》, Energy Conservation Law of the People's Republic of China 《中華人民共和國節約能源法》, Environmental Impact Assessment Law of the People's Republic of China 《中華人民共和國環境影響評價法》, and Regulations on Environmental Protection Management of Construction Project 《建設項目環境保護管理條例》 and other relevant laws and regulations, and has internally formulated a series of green construction policies and methods to strictly manage the waste water, waste gas and solid waste generated during the construction process. Before the construction of a project, we carry out environmental impact assessment and biodiversity assessment to minimize the potential impact on the ecological environment due to construction. In addition, the Company actively carries out ISO14001 certification of environmental management system, and encourages subsidiaries and projects to carry out environmental system construction according to this standard and their own production and operation characteristics. During the Reporting Period, the Group and its subsidiaries did not have any major environmental pollution incident or violation.

##### The Group's Policies for Green Construction

Beijing Urban Construction Design & Research Institute	Environmental Protection Inspection System 《環境保護檢查制度》
Exploration & Surveying Institute	On-site Green Construction Management Procedures 《現場綠色施工管理程式》
	Measures for Safety Production and Green Civilized Construction 《安全生產和綠色文明施工獎懲辦法》
Rail Company	Green Construction Management Plan of Beijing Urban Rail Transit Construction Engineering Co., Ltd. 《北京城建軌道交通建設工程有限公司綠色施工管理方案》
	Building Site Environmental Protection Plan of Beijing Urban Rail Transit Construction Engineering Co., Ltd. 《北京城建軌道交通建設工程有限公司施工現場環境保護管理方案》

At this stage, the impact of the Group's construction activities on the environment is mainly from the discharge of waste water, dust, waste gas and noise. We strictly supervise various green construction management policies, conduct regular monitoring of major pollutants, waste water, waste gas and noise, and continuously improve the emergency response mechanism for environmental emergencies to reduce the impact of construction activities on the environment. In 2021, the Group's green construction management level continued to improve, ensuring that on-site green construction was under control. UCD organizes environmental protection inspections of construction projects at least once a month, and sets up a resident visiting reception room to solve the environmental protection problems of visiting residents in a timely manner. In addition, Exploration & Surveying Institute and Rail Company take the initiative to report to the regulatory authorities before a project starts, monitor the environmental performance, environmental objectives and key indicators during the construction process, and accept the supervision of relevant authorities in a timely manner. During the year, the Group did not have any incident of notification or punishment caused by green construction management issues, and the green construction rate was 100%.

### 3 ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION

Management Measures for Construction Environment	
Air pollution and dust control	<ul style="list-style-type: none"> <li>Strengthen construction management, equip the construction site with corresponding sprinkler facilities, and take spraying and sprinkling measures during the construction process to keep the soil surface moist and prevent dust generation</li> <li>Store powdery materials in closed containers and covered piled materials that are prone to dust</li> <li>Require to use clean fuels such as liquefied petroleum gas for the boilers and stoves on construction sites</li> <li>Optimize the project progress and the deployment of vehicles, and conduct annual inspection on construction machinery and vehicles to ensure that their exhaust emissions meet environmental protection requirements</li> <li>Promote the application of air energy, use thermal energy in the air as an energy source to reduce emissions.</li> <li>Fuel burning installations are equipped with exhaust gas purification devices to reduce the amount of air pollutants produced</li> </ul>
Water pollution control	<ul style="list-style-type: none"> <li>Set up corresponding treatment facilities for different types of sewage to ensure that the sewage must be treated and comply with relevant regulations before it can be discharged into designated sewage pipelines.</li> <li>Monitor the water quality of sewage to ensure that the sewage discharged meets the standards.</li> <li>When groundwater is recharged, water extracted from the ground and treated water that conform to the water quality requirements is used wherever possible.</li> <li>The floors of the paint and fuel storage rooms at construction sites are covered with a waterproof layer, and oil leakage is effectively managed to prevent water pollution caused by oil leakage.</li> </ul>

### 3 ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION

Management Measures for Construction Environment	
Hazardous construction waste control	<ul style="list-style-type: none"> <li>Hazardous wastes generated on construction sites, including batteries, ink cartridges, paints and coatings, are properly collected and then handed over to qualified units for disposal, so as to avoid the impact on the environment caused by improper disposal of hazardous wastes.</li> <li>Strengthen and improve the management system for hazardous waste, and formulate emergency plans.</li> </ul>
waste control	<ul style="list-style-type: none"> <li>Classify non-hazardous wastes such as construction waste and domestic waste generated on the construction site to ensure timely cleaning and disposal of relevant waste</li> <li>Formulate a plan to reduce construction wastes</li> <li>Reuse rubbles and waste earth and stones through landfilling and paving</li> <li>Waste concrete with support removed is used as concrete aggregate for backfill, with the reinforced steel pipes recycled</li> </ul>
Noise control	<ul style="list-style-type: none"> <li>Regularly measure noise on site every month, and complete the Original Record of Noise Measurement at Construction Site Boundary (《施工場界雜訊測定原始記錄》) and the Report on the Noise Measurement at Construction Site (《施工現場雜訊測定報告》)</li> <li>Use low-noise and low-vibration devices and take sound and vibration isolation measures (e.g. soundproof enclosure) to avoid or mitigate construction noise and vibration.</li> <li>Tighten up the monitoring and management of construction site noises, improve excessive construction site noises in a timely manner, and avoid noise pollution caused to local residents.</li> <li>Forbid honking of vehicles transporting materials and solid waste on construction sites.</li> </ul>

### 3 ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION

#### Rail Company introduced a slurry separator

From May to December 2021, in order to reduce environmental pollution, promote resource recycling and ensure construction quality, Rail Company introduced a slurry separator during the construction of the underground diaphragm wall of Beijing Metro Line 22 Bid 12. During the construction of the underground diaphragm wall of the subway project, the slurry separator can separate the slag contained in the sludge, the slurry recovery rate can reach 80%~90%, and the bentonite saving rate can reach 40%~50%, thereby effectively reducing the slag content and realizing slurry recycling. In addition, the slag separated by the slurry separator had low moisture content and could be directly transported out of the field without drying, which greatly improved the green construction level of the site.



Picture: Process of slurry separator separating the slurry

### 3 ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION

#### 3.5 Environmental Education

Environmental publicity and education is an important part of the construction of socialist spiritual civilization. The Group deeply recognizes the leading role of employees' environmental awareness in environmental protection. We learn and publicize the knowledge on energy conservation and environmental protection laws and policies through multiple channels, enhance employees' awareness of saving energy resources and protecting the ecological environment, establish sound ecological values, and jointly assume the main responsibility for building a beautiful China. In terms of daily office work, the Group formulated the Measures for Management of Energy and Resource Conservation of the Headquarters《總部能源資源節約管理辦法》to promote environmental protection and energy conservation education for employees, encouraged employees to implement green office measures pragmatically and realistically, and carried out a series of environmental education and training; in terms of construction, the Group organized green construction training for on-site employees on time, conducted green construction knowledge assessment to ensure that employees fully understand the measures of green construction, put into practice the concept of green energy conservation in the construction process, and made scientific and rational use of green energy conservation and environmental protection technologies to reduce waste of resources, and prevent the pollution to the ecological environment.

#### UCD carried out the activities of "A duty in front of garbage cans (桶前值守)" and garbage classification knowledge test

In 2021, in order to be selected as a demonstration unit for domestic waste classification, UCD carried out the activity of "A duty in front of garbage cans", and required all employees in Beijing to sign a letter of commitment for waste classification, and party members and league members took the lead in practicing waste classification as volunteers. Through the on-site learning of the process of garbage classification, the employees of the Group continuously improved their awareness of garbage classification. A total of 2,580 employees participated in the activity, covering the Group's headquarters and 11 subsidiaries. In addition, in order to further publicize the knowledge related to garbage classification, we also organized a garbage classification knowledge test, and a total of 731 employees participated, with a pass rate of 100%.

### 3 ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION

## 3.6 Environmental Performance

In 2021, we collected environmental data of the headquarters of UCD and its 41 branches, the headquarters of Rail Company and its 9 projects, and the headquarters of Exploration & Surveying Institute and its 16 branches during the Reporting Period. Since the statistical scope of environmental data in 2021 is different from that in 2020, and the number, type, construction period and construction stage of construction projects will lead to differences in data calibers, some environmental data are significantly different as compared to 2020. The Group will continue to push forward and improve the recording and management of environmental data in the future.

Indicator	Unit	2021	2020	2019
<b>Total Air Pollutant Emission<sup>4</sup></b>				
NO <sub>x</sub>	kg	16,999.75	15,000.36	7,808.14
SO <sub>x</sub>	kg	33.05	96.09	146.54
CO	kg	9,046.10	22,084.46	16,395.8
PM <sub>10</sub>	kg	537.52	1,186.7	349.37
<b>Resource Consumption and Intensity</b>				
Total Energy Consumption <sup>5</sup>	MWh	24,343.91	17,981.55	25,172.96
Total Energy Consumption Intensity	MWh/person	6.93	4.84	6.76
Total Electricity Consumption	10,000 kWh	1,969.57	2,008.60	1,124.08
Intensity	kWh/person	5,609.71	5,409.64	3,017.66
Total Natural Gas Consumption	10,000 m <sup>3</sup>	16.86	10.81	18.49
Intensity	m <sup>3</sup> /person	48.02	29.12	49.64

<sup>4</sup> Air pollutant emissions are mainly from exhaust emissions of owned and leased vehicles and leased engineering machinery owned and controlled by the Group and the emissions of natural gas and liquefied petroleum gas used. The specific emission data is calculated by referring to the Technical Guide for Air Pollutant Emission Inventory for Road Vehicles (Trial) 《道路機動車大氣污染物排放清單編制技術指南(試行)》, the Technical Guide for Air Pollutant Emission Inventory for Non-road Mobile Sources (Trial) 《非道路移動源大氣污染物排放清單編制技術指南(試行)》 issued by the Ministry of Ecology and Environment of the People's Republic of China and the First National Survey of Pollution Sources on Urban Waste Source Discharge Coefficients Handbook 《第一次全國污染源普查城鎮生活源產排污係數手冊》.

<sup>5</sup> The following direct energy was calculated by converting the raw data into MWh, and its calculation and relevant conversion factors were referred to the Accounting Methods and Reporting Guidelines for Greenhouse Gas Emissions of Other Industrial Enterprises (Trial) 《工業其他行業企業溫室氣體排放核算方法與報告指南(試行)》 issued by the National Development and Reform Commission of China and Gasoline for Motor Vehicles GB 17930-2016 《GB 17930-2016車用汽油》 and Diesel Oil for Motor Vehicles GB 19147-2016 《GB 19147-2016車用柴油》 issued by General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China and Standardization Administration of China.

### 3 ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION

Indicator	Unit	2021	2020	2019
<b>Resource Consumption and Intensity</b>				
Total Liquefied Petroleum Gas Consumption	10,000m <sup>3</sup> – gas	3.65	3.51	4.84
Intensity	m <sup>3</sup> – gas/person	10.39	9.46	13.00
Diesel Consumption	liter	379,878.90	1,011,051.52	222,323.17
Intensity	liter/person	108.20	272.30	59.68
Gasoline Consumption	liter	1,094,342.04	737,702.62	2,301,708.66
Intensity	liter/person	311.69	198.68	617.91
Office Paper Consumption	tonne	100.93	110.26	146.39
Office Paper Consumption Intensity	kg/person	28.75	29.70	39.30
Total Water Consumption	10,000 tonne	42.53	38.74	70.56
Total Water Consumption Intensity	tonne/person	121.13	104.32	189.42
<b>Greenhouse Gas Emissions and Intensity<sup>6</sup></b>				
GHG Emissions of Scope 1	tonnes of CO <sub>2</sub> equivalents	4,072.64	5,167.62	5,583.39
GHG Emissions of Scope 2	tonnes of CO <sub>2</sub> equivalents	14,053.84	18,176.92	8,418.13
Total Greenhouse Gas Emissions	tonnes of CO <sub>2</sub> equivalents	18,126.49	23,344.54	14,001.52
Total Greenhouse Gas Emissions Intensity	tonnes of CO <sub>2</sub> equivalents/ person	5.16	6.29	3.76

<sup>6</sup> GHG emissions of Scope 1 are derived from the exhaust emissions of self-owned and leased vehicles and leased construction machinery owned and controlled by the Group, the GHG emissions from the consumed refrigerants, and the GHG emissions from the natural gas and liquefied petroleum gas used by the Group. The specific emission data has been calculated with reference to the Fifth Assessment Report issued by IPCC, the Guidelines for Accounting and Reporting of Greenhouse Gas Emissions of Land Transportation Enterprises (Trial) 《陸上交通運輸企業溫室氣體排放核算方法與報告指南(試行)》 issued by the Ministry of Ecology and Environment of the People's Republic of China, and the Guidelines for Accounting and Reporting of Greenhouse Gas Emissions of Enterprises in Other Industrial Sectors (Trial) 《工業其他行業企業溫室氣體排放核算方法與報告指南(試行)》 issued by the National Development and Reform Commission of the People's Republic of China.

### 3 ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION

Indicator	Unit	2021	2020	2019
<b>Total Hazardous Waste Produced and Intensity</b>				
Total Waste Batteries Produced	kg	242.88	39.74	24.07
Intensity	kg/person	0.07	0.01	0.01
Waste Fluorescent Lights	piece	1,161.00	1,040.31	866.00
Intensity	piece/person	0.33	0.28	0.23
Total Waste Printer Cartridges Produced	piece	2,128.00	3,106.00	2,990.00
Intensity	piece/person	0.61	0.84	0.80
Total Waste Chemicals Produced	kg	12.10	21.09	1,800.00
Intensity	kg/person	0.003	0.01	0.48
<b>Total Non-hazardous Waste Produced and Intensity</b>				
Office Garbage Produced	tonne	700.74	241.35	607.59
Office Garbage Recycled	tonne	620.61	109.96	127.49
Household Garbage Produced	tonne	595.56	308.85	201.68
Household Garbage Recycled	tonne	319.38	141.40	184.26
Construction Waste Produced	tonne	2,678.62	700.15	330.13
Construction Waste Recycled	tonne	871.23	506.31	80.58
Experiment Waste Residue Produced	tonne	71.90	80.03	48.54
Experiment Waste Residue Recycled	tonne	70.40	17.41	4.05
Total Non-hazardous Waste Produced	tonne	4,046.82	1,330.37	1,187.95
Intensity	tonne/person	1.15	0.36	0.32

With the support of the energy-saving and emission-reduction management system, the Group has not recorded a significant increase in water, electricity and natural gas consumption for three consecutive years despite the gradual expansion of personnel and corporate scale. In 2021, through resource management policies and energy conservation measures, the Group reduced the greenhouse gas emissions caused by the purchased energy used in the production process, making contributions to the mitigation of climate change.

## 4 GIVING BACK TO THE COMMUNITY THROUGH CHARITABLE UNDERTAKINGS

We actively practice our social responsibilities, provide support for rural revitalization, and organized a variety of voluntary service activities to demonstrate the undertaking of our responsibility, repay the society with practical actions, and promote the common prosperity and coordinated development of the community.

### 4.1 Rural Revitalization

The Group earnestly put into practice the decisions and deployments of the CPC Central Committee and the State Council to provide support for rural revitalization, made charity consumption of RMB857,000 throughout the year and purchased public welfare posts worth RMB100,800, which effectively increased the income of registered poor locals. We signed a financial assistance agreement with Chenggezhuang Village, Dachengzi Town, Miyun District, Beijing to purchase agricultural products worth RMB110,000, and dispatched the first secretary to the village to help enrich the village and the people there, which fully reflected the undertaking of our responsibility as a state-owned enterprise for urban construction in helping to comprehensively promote rural revitalization.

#### Exploration & Surveying Institute worked together with Rail Company to support rural revitalization

In 2021, Exploration & Surveying Institute and Rail Company jointly carried out collaborative work with the Inner Mongolia Pavilion of Beijing Consumer Poverty Alleviation Innovation and Entrepreneurship Center (北京消費扶貧雙創中心內蒙古館). Rail Company went to the Innovation and Entrepreneurship Center to participate in rural revitalization activities, with a total consumption of RMB201,700. Focusing on the regions corresponding to the poverty alleviation support of Beijing, Exploration & Surveying Institute carried out consumption-based poverty alleviation through various channels such as the procurement by labor union, centralized procurement by canteen, party building activities, and poverty alleviation by employee consumption, helping the supported areas to win the battle against poverty and actively fulfilling its social responsibilities.



Pictures: Exploration & Surveying Institute engaging in rural revitalization activities

## 4 GIVING BACK TO THE COMMUNITY THROUGH CHARITABLE UNDERTAKINGS

### 4.2 Volunteering for Public Welfare

We carry forward the voluntary service spirit of dedication, love, mutual assistance and progress, and actively carry out a series of voluntary public welfare activities for flood fighting and emergency rescue, assisting community with epidemic prevention and control, and youth education. For the year ended 2021, the Group invested a total of 1,897 hours in volunteer activities.

**Total Number of Hours Invested  
in Volunteer Activities**

**1,897 hours**

#### 4 GIVING BACK TO THE COMMUNITY THROUGH CHARITABLE UNDERTAKINGS

Party members of Exploration & Surveying Institute participated in the activity of "A duty in front of garbage cans" to put garbage classification into practice

On 10 June 2021, in response to the call of the Party Committee of Anhui Dongli No. 2 Community of "Double Registrations of Party Members (黨員雙報到)", the Party Committee of Exploration & Surveying Institute actively organized and carried out the domestic waste classification activities of "A duty in front of garbage cans" and community sanitation and environmental cleaning. Party members and cadres took the lead in participating in the publicity of garbage classification, performed the duty of garbage classification, and carried out cleaning and publicity around the garbage cans to guide community residents to correctly dispose of garbage, effectively improve the environmental protection awareness of community residents, with more and more residents realizing the importance and necessity of garbage classification, and gradually developing the good habit of garbage classification.



Pictures: Party members of Exploration & Surveying Institute participating in the community garbage classification activity of "A duty in front garbage cans"

## 4 GIVING BACK TO THE COMMUNITY THROUGH CHARITABLE UNDERTAKINGS

### Exploration & Surveying Institute took actions to help Henan

In July 2021, Henan Province was suddenly hit by extremely heavy rainfall, which was rarely seen in history, and severe waterlogging and major flood disasters occurred in many parts of the province. Exploration & Surveying Institute Zhengzhou Branch vigorously supported Henan for emergency rescue and disaster relief, dispatched capable forces and professional equipment to help Zhengzhou, organized disaster relief and rescue teams, and exerted all efforts on disaster relief. After 5 days of uninterrupted operation, the survey team completed a 322-kilometer road survey, provided timely information on road voids around the subways, and provided a strong guarantee for timely elimination of hidden dangers.

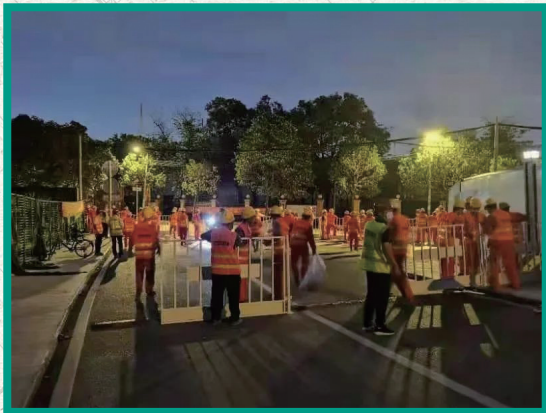


Pictures: Exploration & Surveying Institute sending help to Henan

## 4 GIVING BACK TO THE COMMUNITY THROUGH CHARITABLE UNDERTAKINGS

### The Group helped Guangzhou with epidemic prevention and control

In May 2021, the COVID-19 epidemic struck Guangzhou. Under the unified leadership of the Group and Guangzhou Metro, we actively organized human and material resources to support epidemic prevention and control in local streets and communities. After 9 hours of hard work overnight at the construction sites, the support team completed the construction of all isolation facilities as required by the Epidemic Prevention Office of Liwan District, during which, the first construction site of Guangzhou Metro Line 10 was on standby 24 hours a day to provide technical support for epidemic prevention and control.



Pictures: Construction work carried out in order

## 4 GIVING BACK TO THE COMMUNITY THROUGH CHARITABLE UNDERTAKINGS

### Launched the themed co-construction activity of "Small Classrooms Lighting Up Big Dreams (微課堂點亮大夢想)" to contribute to public welfare undertakings

In 2021, Guangzhou Metro builders within the Group visited the Xilang Primary School of Xilang Joint Villages in Liwan District and worked with the community and the school to organize a co-construction activity with the theme of "Small Classrooms Lighting Up Big Dreams". The metro builders turned into "lecturers" and talked with the students about the knowledge on metro construction, and also prepared and gave popular science books and learning tools to the school to encourage students to study hard. Parties involved in the metro construction also actively visited the communities and schools to listen to opinions and suggestions many times, and carried out various co-construction activities such as community epidemic prevention, holiday greeting activities, and the renovation and upgrading of industrial treatment stations, further narrowing the distance between metro construction and community residents.



Pictures: Activity of Small Classrooms Lighting Up Big Dreams

## ANNEX: THE ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORTING GUIDE

### Table: Index to the ESG Indicators of the Stock Exchange

ESG Aspects and General Disclosure and Key Performance Indicators (KPIs)			Where the disclosure can be found
<b>Environment</b>			
A1: Emissions	General Disclosure	<p>Information on:</p> <p>(a) the policies; and</p> <p>(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.</p> <p>Note: Air emissions include NOx, SOx, and other pollutants regulated under national laws and regulations.</p> <p>Greenhouse gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride.</p> <p>Hazardous wastes are those defined by national regulations.</p>	3 Energy Conservation and Environmental Protection
	A1.1	The types of emissions and respective emissions data.	3.6 Environmental Performance
	A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	3.6 Environmental Performance
	A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	3.6 Environmental Performance
	A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	3.6 Environmental Performance
	A1.5	Description of emissions target(s) set and steps taken to achieve them.	3.1 Environmental Protection Goals
	A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	3.3 Green Office 3.4 Green Construction

## ANNEX: THE ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORTING GUIDE

ESG Aspects and General Disclosure and Key Performance Indicators (KPIs)			Where the disclosure can be found
A2: Use of Resources	General Disclosure	<p>Policies on the efficient use of resources, including energy, water and other raw materials.</p> <p>Note: Resources may be used in production, in storage, transportation, in buildings, electronic equipment, etc.</p>	3 Energy Conservation and Environmental Protection
	A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	3.6 Environmental Performance
	A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	3.6 Environmental Performance
	A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	3.3 Green Office 3.4 Green Construction
	A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	3.3 Green Office 3.4 Green Construction
	A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	N/A (the Group's businesses do not involve the production of any products).
A3: The Environment and Natural Resources	General Disclosure	Policies on minimising the issuer's significant impacts on the environment and natural resources.	3 Energy Conservation and Environmental Protection
	A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	3 Energy Conservation and Environmental Protection
A4: Climate Change	General Disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	3.2 Climate Change
	A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	3.2 Climate Change

## ANNEX: THE ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORTING GUIDE

ESG Aspects and General Disclosure and Key Performance Indicators (KPIs)			Where the disclosure can be found
<b>Social</b>			
B1: Employment	General Disclosure	Information on:  (a) the policies; and  (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	2 Build on Team Cohesion through Effective Staff Care
	B1.1	Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.	2.1 Talent Management
	B1.2	Employee turnover rate by gender, age group and geographical region.	2.1 Talent Management
B2: Health and Safety	General Disclosure	Information on:  (a) the policies; and  (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to providing a safe working environment and protecting employees from occupational hazards.	1.2 Work Safety
	B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	1.2 Work Safety
	B2.2	Lost days due to work injury.	1.2 Work Safety
	B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	1.2 Work Safety
B3: Development and Training	General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.  Note: Training refers to vocational training. It may include internal and external courses paid by the employer.	2.2 Craftsmanship
	B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	2.2 Craftsmanship
	B3.2	The average training hours completed per employee by gender and employee category.	2.2 Craftsmanship

## ANNEX: THE ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORTING GUIDE

ESG Aspects and General Disclosure and Key Performance Indicators (KPIs)			Where the disclosure can be found
B4: Labour Standards	General Disclosure	Information on:  (a) the policies; and  (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to preventing child and forced labour.	2.1 Talent Management
	B4.1	Description of measures to review employment practices to avoid child and forced labour.	2.1 Talent Management
	B4.2	Description of steps taken to eliminate such practices when discovered.	2.1 Talent Management
B5: Supply Chain Management	General Disclosure	Policies on managing environmental and social risks of the supply chain.	1.5 Supplier Management
	B5.1	Number of suppliers by geographical region.	1.5 Supplier Management
	B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	1.5 Supplier Management
	B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	1.5 Supplier Management
	B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	1.5 Supplier Management

## ANNEX: THE ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORTING GUIDE

ESG Aspects and General Disclosure and Key Performance Indicators (KPIs)			Where the disclosure can be found
B6: Product Responsibility	General Disclosure	Information on:  (a) the policies; and  (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	1 Operational Excellence, and Profit Generation
	B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	1.3 Service Quality
	B6.2	Number of products and service related complaints received and how they are dealt with.	1.3 Service Quality
	B6.3	Description of practices relating to observing and protecting intellectual property rights.	1.4 Encourage Innovation
	B6.4	Description of quality assurance process and recall procedures.	1.3 Service Quality
	B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	1.3 Service Quality
B7: Anti-corruption	General Disclosure	Information on:  (a) the policies; and  (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to bribery, extortion, fraud and money laundering.	2.3 Anti-corruption
	B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	2.3 Anti-corruption
	B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	2.3 Anti-corruption
	B7.3	Description of anti-corruption training provided to directors and staff.	2.3 Anti-corruption

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ESG Aspects and General Disclosure and Key Performance Indicators (KPIs)			Where the disclosure can be found
B8: Community Investment	General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	4 Giving Back to the Community through Charitable Undertakings
	B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	4 Giving Back to the Community through Charitable Undertakings
	B8.2	Resources contributed (e.g. money or time) to the focus area.	4 Giving Back to the Community through Charitable Undertakings



**北京城建设计发展集团股份有限公司**

BEIJING URBAN CONSTRUCTION DESIGN & DEVELOPMENT GROUP CO., LIMITED

