



# 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

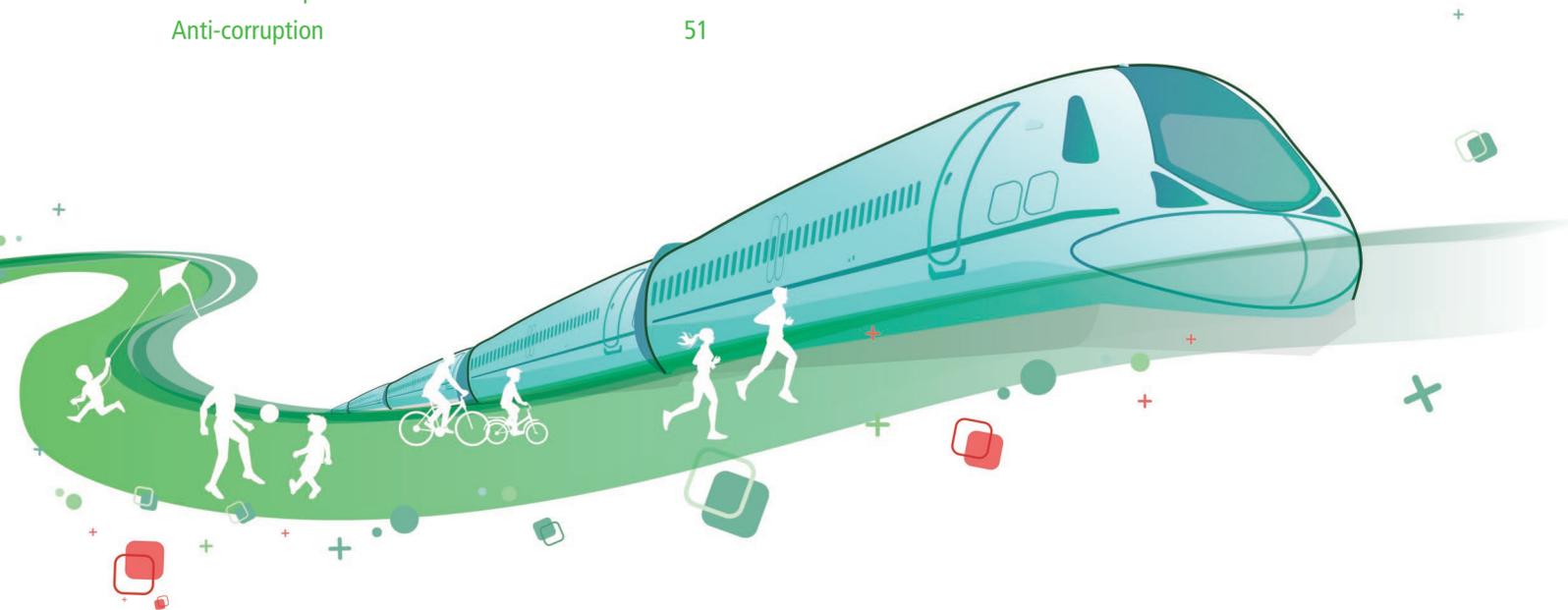


# 2023

## ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

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## ABOUT THIS REPORT

### Objective of the Report

As the ninth 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, social and governance performance during 2023, 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 Exploration & Surveying Design Research Institute Co., Ltd. (北京城建勘測設計研究院有限公司; hereinafter referred to as the “Exploration & Surveying Institute”), 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”) and Beijing Institute of Residential Building Design & Research Co., Ltd. (北京市住宅建築設計研究院有限公司; hereinafter referred to as the “Residential Institute”). 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 2023 to 31 December 2023 (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 “Annex: the Environmental, Social and Governance Reporting Guide”. This report has complied with all “comply or explain” provisions set out in the Guide 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.

## 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 2023, providing 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”) assumes the overall responsibility for the ESG strategy and reporting matters of the Group acts as the highest responsible and decision-making body of the Group. The Group assesses and determines ESG risks to ensure the stable operation of the risk control and internal control systems. The Board has set up an ESG working group, which is responsible for the implementation, supervision, reporting and continuous improvement of ESG issues, and regularly reporting to the Board on the commitments and performance of key ESG issues to facilitate the normal conduction of the Group’s ESG work and ensure that the Group’s ESG philosophy is fully implemented.

In order to control the impact of ESG risks in a timely and effective manner, the Group regularly conducts assessments on material ESG issues based on the external social and economic macro environment and the Group’s development strategy, taking into account the Group’s own characteristics, and reports them to the Board for review. Material issues related to ESG risks and opportunities of the Group discussed and identified by the Board will be incorporated into the Group’s overall strategy as the focus of ESG work, and the management level and performance of the issues will be continuously improved.

The Group will continue to prioritize the mechanism for the Board to participate in ESG work and consider formulating ESG objectives in key areas such as pollutant discharge, energy consumption management, water resource consumption management, carbon emission, occupational health and safety and product quality, so as to incorporate ESG management performance into daily operation goals and fully promote the Group’s ESG governance work.

This report discloses in detail the progress and effectiveness of UCD’s ESG work in 2023 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

In the past year, China has efficiently coordinated economic and social development and maintained the general stability of the economy and society. President Xi Jinping pointed out in his report to the 20th Party Congress that it is necessary to promote green development, accelerate the green transformation of the development mode, and actively and steadily promote carbon peak and carbon neutrality, which provides a fundamental guideline for the practice of China's high-quality development and ESG development concept.

By adhering to the guidance of Xi Jinping's Thoughts on Socialism with Chinese Characteristics for a New Era, UCD implements the Group's "14th Five-Year" strategic development plan, insists on consolidating the main industries and keeping integrity and innovation, and focuses on the strategic goal of being a design-led integrated urban construction service provider to promote the Group's industrial chain to a higher level, higher quality and higher grade, so as to achieve a high level of quality and steady development of the enterprise. As a leading enterprise in the industry, we recognize that the key to sustainable development is to continuously and actively fulfill our environmental, social and governance responsibilities while generating profits.

Ensuring high-quality project performance through scientific management. We always follow the management concept of "scientific management, quality transcendence, continuous improvement and customer satisfaction" and continue to improve the construction of the QHSE management system. We strictly control the safety production, take the implementation of the main responsibility of the enterprise's safety production as our primary task, with the aim of fundamentally eliminating accident hazards, and enhancing the modernization of the safety production governance system and governance capability. We pursue excellence in design and construction quality and strengthen customer service management. In 2023, 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 regulate the business activities of the Company and its partners, proactively communicate with peers, and consistently regard product and technology innovation as the core competitiveness of the Company. In 2023, the Group continued to increase the efforts in reporting and promoting technological innovation achievements, by organizing the application of a number of provincial and ministerial-level local government science and technology awards, and received over 160 awards including the Luban Prize, the National Quality Engineering Award, and the Beijing Science and Technology Award, as well as the only Annual Technological Innovation Award from the International Tunnelling Association. The Company was awarded the title of "Beijing Intellectual Property Demonstration Unit" for the first time, and obtained a total of 239 domestic and international patent authorizations and computer software copyrights. Four national and industrial standards completed by the Company have been approved for project initiation.

Keeping people-oriented to cultivate high-quality talents. Upholding the concept of people-oriented employment, we recruited talents from all fields with an equal and inclusive attitude. We protected the basic rights and interests of our employees and promised non-discriminatory employment, so as to provide fair and broad development opportunities and channels for all our employees. We also cared for our employees through holiday condolences, blessings for marriage and childbirth, help for employees in difficulty, condolences for serious illnesses, condolences for key projects, mental health counseling, etc. By carrying out activities such as expert lectures and public class competitions, we built a platform for employees to realize their self-worth. Besides, we continued to promote the implementation of anti-corruption and integrity.



## MESSAGE FROM THE MANAGEMENT (Continued)

Striving for high-quality ecological development through green operation. In active response to the national goals of “carbon neutrality” and “carbon peaking” as well as the battle against pollution, we focused on the climate change. Adhering to green office, we promoted green construction and carried out environmental education, so as to continuously promote the construction of ecological civilization. We also continued to improve the environmental management system with a focus on controlling our own environmental impact to reduce environmental pollution through multiple measures. By empowering high-quality development with green and low-carbon operation, we promoted sustainable environmental development with practical actions, thereby fulfilling our responsibilities of environmental protection. In 2023, the compliance rate of green construction was 100%.

Caring for the people and building a harmonious society together. With a focus on common prosperity, we facilitated the targeted poverty alleviation and rural revitalization, while assisted local residents to achieve the goal of common prosperity. In the face of widespread of the domestic epidemic as well as the severe and complex COVID-19 epidemic overseas, we prudently implemented various prevention and control measures to achieve a double win in both epidemic prevention and control as well as production and operation.

2024 is a key year for the implementation of the “14th Five-Year Plan”. With a focus on the development goals of the “14th Five-Year Plan”, we will continue to strive for innovation and forge ahead to achieve steady development, stable innovation and stable quality improvement with more visible development resilience. With an aim to creating better returns for our shareholders and serving our customers, we will cooperate with our stakeholders to jointly promote sustainable economic, social and environmental development!

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 projects, urban planning, etc. With a complete industrial chain integrating design consulting, engineering construction, investment and financing, science and technology industrialization, real estate and cultural tourism, as well as operation and management, UCD also provides customers with professional full-services.

Listed on the Hong Kong Stock Exchange in July 2014, the Group is one of the earliest survey and design companies established in China. 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 in China. Besides, the Group has an expert team of the best in the industry, led by academicians of the Chinese Academy of Engineering, National Engineering, Survey and Design Master, hundreds of senior engineer of professor level senior engineer, to serve the whole process of urban rail traffic engineering in all professional fields.

The Group has established business presence in nearly 70 cities in China with branches in more than 50 cities, and has extended its presence to overseas markets such as Russia, Vietnam, Kazakhstan, Columbia and Angola. The Group always adheres to the mission of "Design the City, Build the Future", and strives to become a design-led comprehensive service provider for urban construction, thereby promoting the organic integration and sustainable development of people, cities and the environment.

# SUSTAINABILITY MANAGEMENT

UCD has practiced the concept of sustainable development by constantly optimizing sustainability management, communicating with stakeholders on a regular basis and identifying important sustainable development issues, so as to gradually improve the Group's sustainable development management level and practice.

## ESG Management Structure

In accordance with the latest policy guidelines of the Hong Kong Stock Exchange, the Group has systematically promoted its environmental, social and governance efforts and continued to strengthen the supervision responsibilities of the Board. We have established a management structure with the Board as the highest responsible body for ESG matters, in which the ESG working group coordinates the ESG strategic deployment and various sub-institutes and project companies carry out ESG issues management and practice based on business attributes, effectively integrating the ESG management requirements into the entire process of company operation and management.

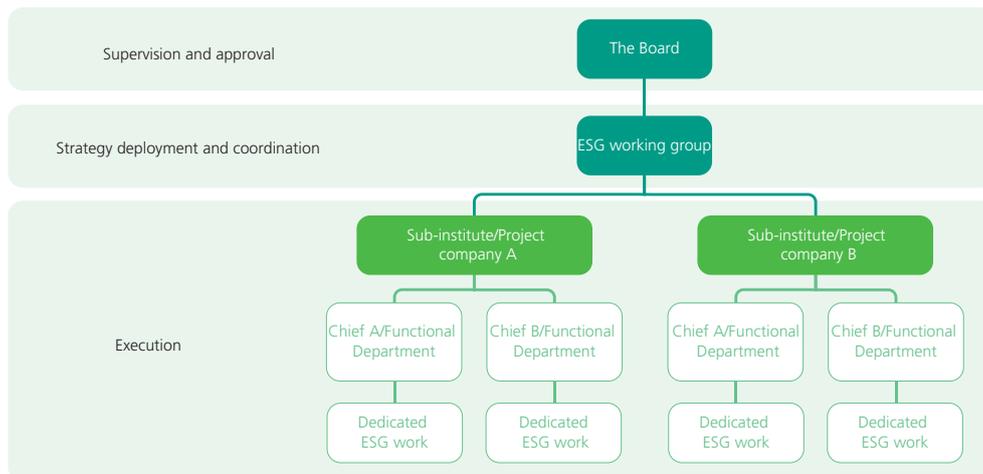


Figure: ESG management structure of UCD

UCD has established a three-tier ESG management structure comprising decision-making, management and execution levels. In the decision-making process, the Board assumes the overall responsibility for the Group's ESG strategies and reports, is responsible for assessing and identifying ESG risks, and guides the ESG working group on work planning and coordination to ensure the stable operation of the Group's risk management and internal control systems. In the process of specific negotiation and execution of ESG work, the ESG working group is responsible for reporting to the Board about the work progress on environmental, social and governance as well as the performance of implementation, supervision, reporting and improvement, and implements the ESG management strategy and countermeasures formulated by the Board.

UCD values the Board diversity and has established the *Board Diversity Policy* 《董事會成員多元化政策》 to select Board candidates based on a range of diversity areas, including but not limited to skills, knowledge, experience, gender and educational background. As of the end of the Reporting Period, the Board of the Group consisted of 12 directors in total, including 4 independent non-executive directors and 2 female directors. At least one of the incumbent non-executive directors has obtained a professional qualification in finance and other directors have extensive experience in different industries, including finance, public service, law, business management, etc., which meets the non-executive director requirements under the Hong Kong Listing Rules.



## Communication with Stakeholders

The Group attaches great importance to stakeholder participation and continuously improves its social responsibility communication mechanism. Through systematic information disclosure on company operations and effective channels opened for communication with stakeholders, we understand and respond to the expectations and demands of stakeholders, and accept the supervision of the Group by stakeholders. In 2023, we participated in 22 investor exchanges, disclosed more than 50 items of information to the public, and regularly disclosed to the public the practical results of the Group’s fulfillment of social responsibility.

Stakeholders	Requirements and Expectations	Responses
 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>

### Assessment of Material Issues

By integrating corporate strategic planning with social responsibility management, UCD relies on domestic and international ESG (Environmental, Social, and Governance) disclosure frameworks within the industry. Through extensive surveys conducted in questionnaire form, a materiality assessment is carried out to prioritize ESG material issues involving stakeholders such as the government, shareholders, employees, and customers. This serves as a crucial reference for the disclosure on the ESG report for the year.

The materiality assessment process is as follows:

#### STEP 1:

#### Establish database of ESG issues

By reference to the basis for compiling this report, combined with corporate characteristics and peers' performance and based on the 2022 ESG issue database, the Group identified a total of 27 potential ESG issues in three aspects, i.e. environment, staff and operation, and included them in the 2023 ESG issue database.

#### STEP 2:

#### Rank ESG issues

The Group invited relevant parties such as employees, the Board and the management to complete online stakeholder questionnaires, and ranked the materiality of three aspects of ESG issues from their perspectives.

#### 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 to staff" and "importance to 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.

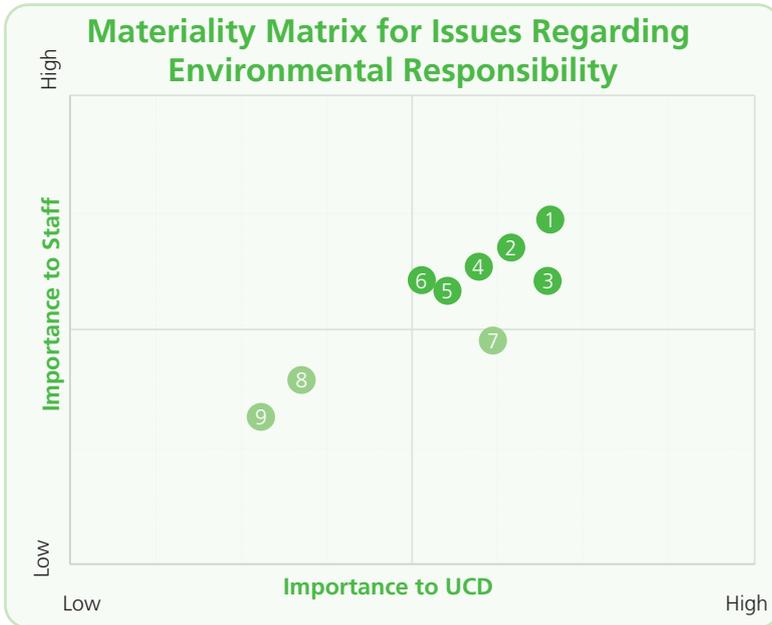
#### STEP 4:

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

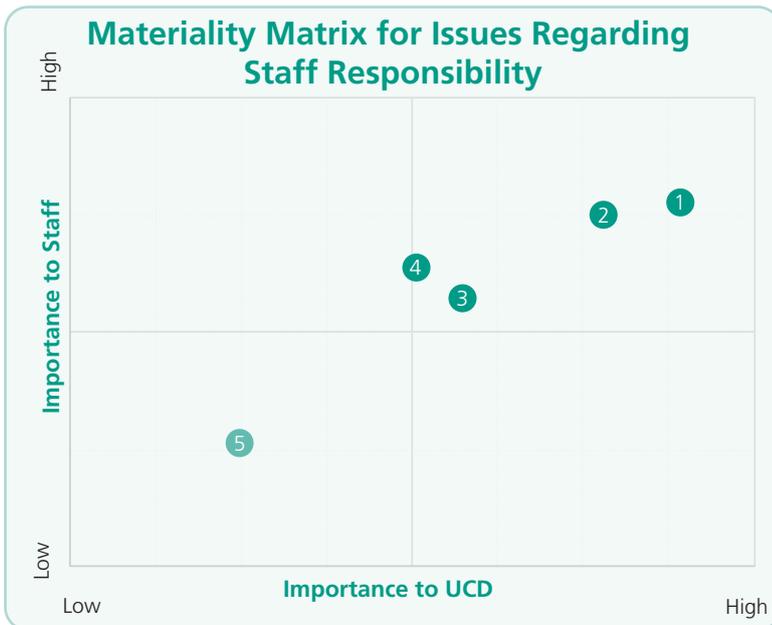
The Group invited the Board and the management to identify the material ESG issues to ensure that the results dovetail with the direction of the Group's sustainable development strategy. The later sections of this report focus on material ESG issues acknowledged by the Board and the management, with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



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

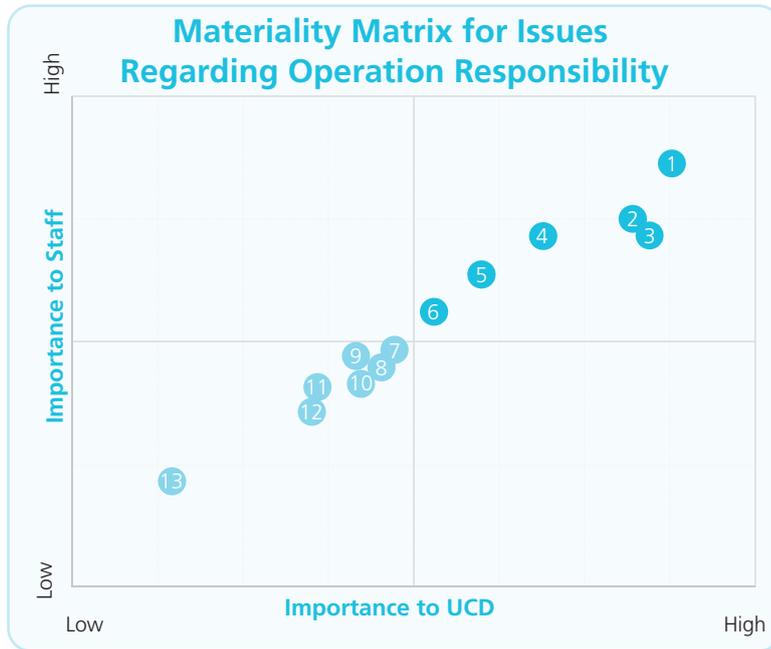


- 1 Discharge and management of pollutants
- 2 Discharge and management of waste
- 3 Management of energy utilization
- 4 Management of water resource utilization
- 5 Discharge and management of greenhouse gas
- 6 Green office policy management
- 7 Green construction policy management
- 8 Climate change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



- 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.)

At the same time, based on the important matters of sustainable development of the Group, 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

# 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		

UCD always follows the management philosophy of “Scientific Management, Superb Quality, Continuous Improvement, and Customer Satisfaction” and implements the QHSE management policies and systems. We continue to improve the safety management mechanism and supplier management system. Through scientific and technological innovation for promotion of the industry development, we are committed to providing customers with more comprehensive, higher quality products and services.

## QHSE Management Systems

In compliance with the *Quality Management Systems – Requirements* 《質量管理體系要求》(GB/T 19001-2016), the *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), the *Occupational Health and Safety Management Systems – Requirements with guidance for use* 《職業健康安全管理體系要求及使用指南》(GB/T 45001-2020), the *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 standards, UCD has introduced a series of supporting documents such as the Health, Safety, and Environmental Management System Manual, management standards, procedures, and regulations that are tailored to the Group. In 2023, the Group's coverage rate of the ISO 45001, ISO 14001 and ISO 9001 system certification was 100%.

To promote the construction of a quality culture and the effective operation of the quality management system of the Company, the Group integrates the Quality, Health, Safety, and Environment management system (hereinafter referred to as the “QHSE systems”), to form a systematic and standardized QHSE management system framework that is tailored to UCD's operations. This framework is managed through three levels of standardization to ensure the smooth operation of the QHSE control of the Group.

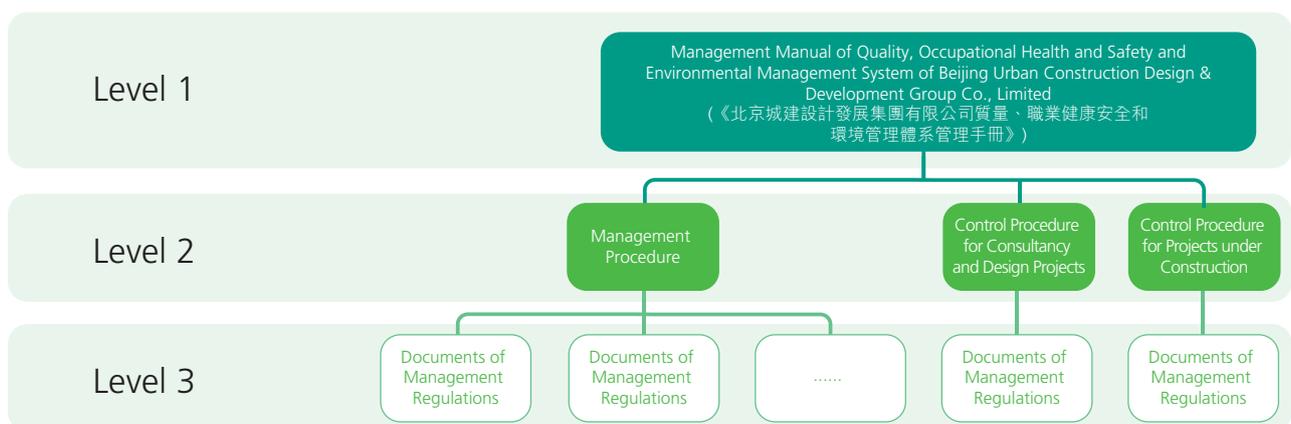


Figure: Document structure of QHSE system of UCD

### Work Safety

Adhering 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)”, UCD sets “zero injury, zero accident and zero fatality” as its safety goal. To achieve such goal, UCD consolidates its foundation for safe operation by constantly improving its work safety system, strictly implementing the main responsibility of the enterprise’s work safety, strengthening risk management and prevention and control of work safety, and promoting a safety culture through fully strengthening and standardizing employees’ safety awareness.

**During the Reporting Period, the Group has strictly complied with the following laws and regulations related to providing a safe working environment and protecting employees from occupational hazards:**

*Safety Production Law of the People’s Republic of China* 《中華人民共和國安全生產法》

*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》

*Construction Law of the People’s Republic of China* 《中華人民共和國建築法》

*Labor Law of the People’s Republic of China* 《中華人民共和國勞動法》

*Construction Safety Management Regulations* 《建設工程安全管理條例》

*Regulations on the Reporting, Investigation and Handling of Production Safety Accidents* 《生產安全事故報告和調查處理條例》

and other national laws and regulations

### WORK SAFETY SYSTEM BUILDING

The Group strictly abides by the *Safety Production the 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 Safety Management Regulations* 《建設工程安全管理條例》 and other laws and regulations, and conducts work safety management in accordance with the *Measures of Beijing Urban Construction Design & Development Group Co., Limited on Work Safety Incident Reporting, Investigation and Disposition* 《北京城建設計發展集團股份有限公司生產安全事故報告和調查處理辦法》, the *Construction Work Safety Operation Procedures* 《建築工程施工安全操作規程》 and other regulations and systems that are internally formulated. In 2023, the Group revised the *Work Safety Accountability 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安全生產責任制》 and strengthened the implementation of the working mechanism requirements of “business and operation management cannot be separated from safety management (管業務必須管安全、管生產經營必須管安全)” and “the Party and the government sharing the same responsibility, one post with dual responsibilities (黨政同責、一崗雙責)” in order to enhance the Group’s security capability for safety.



**The Group's Major Management Policies about Work Safety :**

*Measures of Beijing Urban Construction Design & Development Group Co., Limited on Work Safety Incident Reporting, Investigation and Disposition* 《北京城建設計發展集團股份有限公司生產安全事故報告和調查處理辦法》

*Work Safety Education and Training 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安全生產教育和培訓制度》

*Catalog of Construction Safety Operation Procedures 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操作規程目錄》

*Emergency Rescue Plan for Work Safety Accidents 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生產安全事故應急救援預案》

*Work Safety Accountability 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安全生產責任制》

*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》

*Measures of Beijing Urban Construction Design & Development Group Co., Limited on Reward and Punishment for Work Safety and Green Construction* 《北京城建設計發展集團股份有限公司安全生產和綠色施工獎懲辦法》

To ensure the management of work safety in place, Exploration & Surveying Institute and Rail Company continuously implement the *Work Safety Accountability System* 《安全生產責任制》 and the *Work Safety Inspection Mechanism* 《安全生產檢查制度》, and formulate the *Measures on Reward and Punishment for Work Safety and Green Construction* 《安全生產和綠色施工獎罰辦法》 in 2023 to eliminate accident related to work safety responsibility and secure the safety and health of employee.

To ensure smooth operation of work safety, the Group formulated the *Work Safety Accountability System for All Employees 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全員安全生產責任制》 in accordance to responsibilities of all employees at all levels and functions of all departments. Such initiative has established a multiple safety management system with the Board as the highest level of leadership, all employees involved and multi-level oversight aiming to remedy defects and errors. With such system, duties would be designated to specific responsible persons, and goals would be implemented by specific positions, thereby truly establishing a long-term effective system for work safety and incorporating work safety into operations of the Group. In the future, the Group will further amend and improve safety management system to coordinate the advancement on the establishment of standardized work safety system and fully improve the quality and effectiveness of safety management. In 2023, the Group invested RMB105.52 million in work safety. Meanwhile, UCD has not recorded any case of work-related injury or death for three consecutive years, and its loss of working days due to work-related injuries remained to be zero.

### SAFETY RISK AND CONTROL

UCD is fully aware that it is the Group's important responsibility to prevent and resolve major risks in safety production, and it is also an important measure to promote the industry's safety development at a higher quality and higher level. According to 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》, we have comprehensively established a dual prevention and control system for construction safety risk grading management and hidden trouble investigation and governance, and intensified its efforts in preventing risks in safety production, so as to effectively resolve major risks at source and resolutely prevent major safety production accidents.

The Group has continuously strengthened the "dual prevention and control" system by establishing its safety management grid, whereby all projects under construction are divided into 54 grids with designated personnel in charge to ensure that potential risks are eliminated within the grids and rectified immediately upon identification, as well as ensure the effective implementation of safety management work. In addition, we urge each project to strictly comply with the requirements of safety risk grading management and hidden trouble investigation and governance, and each level of control to supervise the implementation of safety risk control measures. Through the identification of safety risks in various aspects, and the refinement of the contents and standards of inspections, we increase the frequency and efforts of inspections in key areas, sections and periods in accordance with the construction characteristics of each project. At the same time, the Group conducts safety risk inspections for each project from time to time in strict accordance with the requirements of "full coverage, zero tolerance and effectiveness" to ensure that major and relatively major safety risks are effectively managed and controlled. In 2023, UCD carried out 592 safety inspections on construction sites, with a total of over 650 inspection comments and over 2,480 safety hazards identified throughout the year.



**Case: Residential Design Institute launched traffic safety and fire hazard investigation**

In order to eliminate potential problems affecting production safety and fire prevention, the Residential Design Institute has formulated the *Implementation Plan for the Examination and Rectification of Traffic Safety and Fire Hazards* 《交通安全和火災隱患大排查大整治工作實施方案》, and conducted the investigation and rectification of traffic safety and fire hazards between April 2023 and December 2023. With respect to traffic safety management, we established a group called “Platform Training for the Use of Public Vehicles”, and at the same time conducted self-inspection and self-correction on the improvement of the system, the update of the ledger and the standardisation of the online dispatch process, as well as regularly updated the list of problems. With respect to fire safety management, we carried out weekly self-inspection and reported the results of self-inspection to the Group, and conducted monthly reviews and summaries to eliminate and rectify potential problems in a timely manner.



Picture: Traffic safety and fire hazard investigation

**SAFETY TRAINING AND EMERGENCY DRILL**

Adhering to the principle of “people-oriented, training in accordance with law, and graded implementation”, UCD performed its responsibility to conduct safety training and education for all employees according to the *Work Safety Education and Training 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安全生產教育和培訓制度》. With an emphasis on developing employees’ safety awareness, the Group conducts targeted work safety education and training every year for employees at different levels, such as project managers, deputy production manager, project-related managers and personnel from sub-contractors. Such training covers, laws and regulations on work safety, rules and policies on work safety and their operation procedures, post safety operation skills, prevention awareness of and emergency response to work safety accidents, as well as self-rescue and mutual rescue knowledge. In 2023, we formulated an annual safety training work plan and conducted 10 special safety trainings such as “Scaffold General Technical Specification Study”, “Bridge Basket Construction Safety Control” and “Metro Fire Safety Management”, with a total of 872 participants; we conducted a three-dimensional physical safety education with the attendance rate of 100%, and participated in workers’ night school and special safety trainings totaling 43 sessions online and offline with a total of 5,882 participants.



**Case: The Exploration & Surveying Design Research Institute carried out special safety training and knowledge contest activities**

In 2023, the Exploration & Surveying Design Research Institute invited industry experts to conduct a wide range of lectures and trainings on a variety of topics, including full-time safety management personnel training, anti-falling safety management at construction sites and fire safety management at construction sites, which further improved work safety management and awareness at construction sites and created a strong atmosphere of work safety learning.



Picture: Special safety training activities

In June 2023, the Exploration & Surveying Design Research Institute held the 9th work safety knowledge contest activity. The contest had 36 participants from 12 teams and awarded three team prizes and three outstanding individual prizes. This activity facilitated employees' exchange on work safety knowledge, improved employees' enthusiasm in learning safety knowledge, strengthened our publicity and education on work safety, and effectively promoted the development of our safety culture.



Picture: The 9th work safety knowledge contest activity

To further strengthen the implementation of emergency plan protection measures, UCD formulated the *Emergency Plan for Work Safety Accidents of the Company* 《公司生产安全事故应急救援预案》, which improved the Group's internal ability to deal with work safety accidents and emergencies. We also conduct emergency drills on a regular basis to strengthen our emergency response system.



In 2023, according to their actual construction situation, the Group conducted 56 targeted emergency drills for its projects based on the construction environment and existing risks including 14 flood control emergency drills, 31 fire emergency drills, 4 limited space emergency drills, 4 heat-stroke drills, 2 underground pipeline safety emergency rescue drills, 1 tunnel escape emergency drill and 1 electric shock emergency drill. These drills effectively strengthened our disposal and coordination capability in response to emergencies at construction sites.



**Case: UCD launched a series of activities for the “Safe Production Month (安全生產月)”**

In 2023, the Group organized and launched a series of activities for the “Safe Production Month (安全生產月)”, including the work safety knowledge contest, micro fire station skills competition and other activities. 752 employees were organized to watch the Beijing Emergency Management Bureau feature film for the 2023 Beijing Safety Consultation and Publicity Day. Employees were also organized to participate in the knowledge contest held by Beijing Municipal Bureau of Construction. 375 employees were organized to participate in the Internet knowledge contest held by Beijing Emergency Management Bureau, and 54 employees were awarded e-certificates of completion for the “Escape Training Camp (逃生訓練營)”.

The micro fire station skills competition launched was closely related to actual practice. This way of leveraging competition to promote training and enhancing practical capabilities through training has fully implemented the decision and deployment for large-scale investigation and rectification and safe production, and vigorously popularized the knowledge of fire safety, strengthened the fire-fighting skills of front-line staff, enhanced the fire safety awareness of employees, and further consolidated the Company’s voluntary firefighters team building.



Picture: Micro fire station skills competition activity

### OCCUPATIONAL HEALTH AND SAFETY

The Group abides by the *Labour Law of the People's Republic of China* 《中華人民共和國勞動法》, 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 *Management Regulations for Labor Protection Products of Employers* 《用人單位勞動防護用品管理規範》 and other related laws and regulations, adhering to strive for occupational health and safety in accordance with laws and regulations. *Catalog of Work Safety Operation Procedures for the Company's Construction* 《公司施工安全操作規程目錄》 was formulated to effectively protect the health and life safety of construction workers. In addition, UCD 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 procedures of procurement, acceptance, storage, distribution, use, replacement and retirement of labor protection supplies and provides a standardized reference for the management and provision of occupational health and safety equipment for employees.

In order to create a cultural atmosphere of occupational health protection in which everyone can take action and everyone attaches importance to it, the Group has implemented the Occupational Health Protection Action, strengthened the supervisory responsibilities, implemented the main responsibilities, and upgraded the level of occupational health work. According to the various types of potential occupational diseases, the Group has formulated effective measures to prevent and control the hazards of occupational diseases, so as to earnestly protect the rights and interests of workers' occupational health.

Table: Preventive Measures for Occupational Health Hazards

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.



Types of potential occupational diseases	Workplace management and preventive measures	Personal equipment and precautions
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.

To protect the occupational health and safety of the employees, the Group has established an occupational health and safety inspection mechanism and conducts quarterly inspections on the prevention and control of occupational diseases in various workplaces, as well as random checks on the workplace environment and the use of protective equipment by employees from time to time. Besides, we have promptly analysed the causes of the problems identified during the inspections, made adjustments and provided timely feedback to the inspection department for rectification.

## Service Quality

Adhering to the quality tenet of “Scientific Management, Superb Quality, Continuous Improvement, and Customer Satisfaction”, we are committed to improving its capabilities in project positioning, product research and development, quality control and service management. We always 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 relevant laws and regulations, and have formulated the *Administrative Measures for Technology and Quality Management 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技術質量管理辦法》 and other internal relevant systems. Based on the QHSE management system, we continue to improve our service capability in various aspects, such as rail design, construction, survey as well as building construction, in order to ensure that we provide customers with the services of the best quality.

## DESIGN AND CONSTRUCTION QUALITY

UCD has always focused on building high-quality engineering, and we are well aware of that the quality of engineering design and construction is not only related to the safety of users, but also to the reputation and long-term development of the Company. Following the guidelines on quality control set out in the QHSE management system, the Group has established a comprehensive quality inspection mechanism and implemented reasonable product delivery protection requirements based on procedural and institutional documents. We conduct quality control throughout the lifecycle of projects, encompassing engineering design, engineering consulting segments and construction segment, ensuring the integrity of product delivery. We convene quality coordination meetings and summary and analysis meetings for quality inspection monthly to report and analyze the progress of key works on technology and quality in the month. Furthermore, we also organize business training and examination, which together significantly improve our design quality. In addition, the Group has identified issues on project sites and in the industry in a timely manner by carrying out technology and quality inspection and the project inspection in quality month of construction sites on an ongoing basis, which effectively avoid potential risks and safeguards the

## OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (Continued)

quality of construction. During the Reporting Period, the Group recorded no quality incidents, design review rate of 100% and one time acceptance rate of unit project of 100%, and has achieved the annual quality target. The Residential Institute held 21 design quality related trainings in total to continuously enhance the design capability of the design personnel.

Table: Quality assurance procedure

Quality assurance procedure	Engineering design, engineering consulting segments	Construction segment
General management and control	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 <i>Design Consulting Procedure Document</i> 《設計諮詢程序文件》.	We implemented management on construction technology, construction quality and construction production in accordance with the <i>Construction Project Control Procedure Document</i> 《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.
Quality inspection	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 <i>Rules on Management of Punishment Regarding Technical Quality of Design</i> 《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 <i>Rules on Management of Punishment Regarding Technical Quality of Construction</i> 《施工技術質量處罰管理辦法》.
Product delivery	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, anti-scratch, anti-deformation, anti-damage and other 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.

## OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (Continued)

Table: Awards of design and engineering projects in 2023 (selected)

Segment	Type of Award	Name of Award	Number
Design segment	Municipal Awards	Achievement Evaluation for Survey and Design of Beijing	58
		Excellent Urban and Rural Planning Awards of Beijing	7
		National Outstanding Project Consulting Awards	2
	Project Quality Awards	National High-Quality Project Gold Award of the Second Batch for 2022-2023	1
		Beijing Construction Decoration High-Quality Project	1
		Great Wall Cup Gold Award of Beijing Municipal Infrastructure Completion	1
Construction segment	Quality Management Awards	Outstanding Quality Management Team First Prize and Second Prize of National Municipal Engineering Construction for 2022	1 First Prize 1 Second Prize
		Engineering Construction Quality Management Team Activity Competition Third Prize by China Association of Construction Enterprise Management for 2023	1
		Outstanding Quality Management Team Second Prize and Third Prize of National Municipal Engineering Construction for 2023	2 Second Prizes 1 Third Prize
		Outstanding Quality Management Team Type II Award of Beijing Engineering Construction by Beijing Construction Association for 2023	1
		Outstanding Achievements of QC Team Activities First Prize of Beijing Municipal Engineering Construction by Beijing Municipal Engineering Association for 2023	3
		Outstanding Quality Management Team Competitions Type I, Type II, and Type III Awards by Chong Qing Construction Industry Association for 2022	2 Type I Awards 5 Type II Awards 1 Type III Award
		First Prize, Second Prize, and Third Prize of Excellent Quality Management Team of Chongqing Municipal Industry for 2023	1 First Prize 3 Second Prizes 2 Third Prizes
		Reliable Quality Team Category II Award of Engineering Construction by China Construction Industry Association for 2023	1 Category II Award 2 Category III Award
		Reliable Quality Team in Engineering Construction by Chong Qing Construction Industry Association for 2022	8

### RANDOM CHECKS FOR SURVEY QUALITY

To ensure the survey quality of projects, Exploration & Surveying Institute has formulated the *Quality Inspection System* 《質量檢查制度》 and the *Risk Management Measures for Project Quality* 《工程質量風險管理辦法》 to carry out daily random checks for the quality of projects, conduct high-standard examination and acceptance of the data of the key projects, and timely issue rectification notices for hidden quality problems and supervise the implementation of rectification of projects, to ensure that customers are provided with high-quality products. In addition, the Exploration & Surveying Institute also identifies and controls potential quality risks and publishes an annual quality analysis report internally after comprehensive analysis to ensure the efficiency, high quality, and compliance of the survey.

### QUALITY OF ARCHITECTURAL SPACE

The Group has actively promoted construction quality and gradually improved the quality management process of spatial design. The Residence Institute has established reliable construction standards with comprehensive and detailed requirements for residential units, underground garages, structures, heating, ventilation, and air-conditioning. In addition, we comprehensively take into account the geographical location of the building, rationally utilize the surrounding natural resources, incorporate human body factors and other factors into building design, and apply safe and energy-saving construction materials and equipment to guarantee the quality of the building effectively.



#### Case: Projects from the Residential Institute garnered the first-class and second-class prizes in the “Good House” design competition

In 2023, the Residence Institute participated in the national “Good House” design competition and won two first-class prizes and one second-class prize in the Beijing competition with the theme of “New Design – New Residence – New Life” organized by China Engineering & Consulting Association under the guidance of the Ministry of Housing and Urban-Rural Development. Empowered by technology and driven by innovation, the Residence Institute demonstrated the foresight and advancement of residential design, as well as innovative concepts and methods of residential design through its works, so as to comprehensively improve the level of residential design and quality of living.

Through participating in the competition, the Residence Institute demonstrated its comprehensive design capacity and expanded its brand awareness and influence in the industry, which proved its leading position in the design field.

### CUSTOMER SERVICE

Upholding the customer-oriented principle and based on all-round and multi-level customer service models, the Group strives to continuously optimize customer experience by concentrating efforts in the construction of customer communication channels, customer privacy protection and responsible marketing. We have complied with the system documents such as the *Rules on Customer Satisfaction Survey and Application* 《客戶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, and organized regular visits to property owners to proactively understand and master their needs and opinions, thereby ensuring the timely and effective response to customer feedback. At the same time, the Company has established local branches and conducted face-to-face communication with customers by its expert team, in order to deeply understand the progress of projects and solve key technical issues in a timely manner.

With high regard for customer satisfaction, we have formulated a sound customer satisfaction survey mechanism. Under this mechanism, we required all subsidiaries and departments to collect and report customer satisfaction information on current projects or business transactions, including praise, rewards, complaints or problems found during visits to property owners, and conducted training and communication through meetings and thematic emails to ensure that all employees can fully understand the focus and significance of customer satisfaction surveys, so as to continuously improve our services and products. In 2023, we conducted satisfaction surveys targeting various departments' ongoing projects and clients with whom we have business transactions. The surveys obtained 52 awards for excellence and 58 letters of commendation.

To further improve the response capability and pace to customer complaints, the Group has developed a robust customer complaint management system and issued internal rules such as the *Customer Service Management Measures* 《顧客服務管理辦法》 and the *Customer Service Assessment Rules* 《顧客服務考核細則》. We have classified and graded complaints and comprehensively standardized the complaint handling mechanism, process, visits and other aspects. In case of complaints or objections from customers, we have arranged special personnel to communicate with customers professionally in real time, and informed customers of the progress and handling methods of complaints within 24 hours. The Group prepares a detailed analysis report on customer complaints every six month, and urges relevant departments to formulate specific corrective and preventive measures according to the problems feedback from customers, so as to continuously improve customer service quality. During the Reporting Period, the Group strictly monitored the quality of customer services, neither the complaint hotline nor the complaint mailbox received any complaints, and the total number of customer complaints, quality-related complaints, service-related complaints and other complaints were all zero.

To defend the Group's network security and effectively protect customers' personal information security, we abide by national laws and regulations and have formulated several system requirements including the *Confidential Work Management (Interim) Regulations* 《保密工作管理(暫行)規定》, the *Server Security Management System* 《服務器安全管理制度》, and the *Customer Privacy Protection Management Measures* 《客戶隱私保護管理辦法》. These systems clarify the boundary of information confidentiality, key confidential matters, document management and circulation rules, document clearance and filing process, conditions of information destruction, and informatization and file management rules. Meanwhile, the Group further carried out privacy protection education activities and strictly reviewed the implementation of confidentiality work on a regular basis. Any employee who discloses customer or company information shall be accountable according to the severity of his/her behavior, so as to ensure that all employees can strictly abide by the confidentiality rules and create a more secure and reliable service environment for customers.



## OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (Continued)

Furthermore, we abide by 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, and perform internal requirements such as the *Market Operation Management Measures* 《市場經營管理辦法》 and marketing control procedures. We conducted stringent control on the publicity of our design, consultancy and contracting business and constantly optimized quality control and quality testing procedures. All of these are to ensure the authenticity and accuracy of information and products provided to customers, and hence safeguard the rights and interests of customers and avoid the occurrence of misleading events.

### Promote Innovation

UCD regards technological innovation as a key factor for sustainable development and an important driving force for maintaining the core competitiveness of the Group. We continuously empower products and services with technology innovation, establish a technology research institute to manage and integrate technology research and development (R&D) resources, emphasize intellectual property protection and management, and actively participate in industry exchanges and academic activities, and thus constantly realizing innovation achievements.

### SCIENTIFIC AND TECHNOLOGICAL INNOVATION MANAGEMENT

The Group focuses on innovative R&D of products, leading with technological innovation to drive product iteration and upgrades. We have formulated regulations and systems such as the *Administrative Measures for Science and Technology Innovation Projects* 《科技創新項目管理辦法》, the *Implementation Rules for the Initiation of Science and Technology Innovation Projects* 《科技創新項目立項實施細則》, the *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 the *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 effectively manage technological innovation. The Residential Institute steadfastly implements a development strategy centered on technological innovation. Through internal independent R&D and collaboration with universities and alliance enterprises, the Residential Institute continuously enhances the development efforts of technological innovation, improve market sensitivity, and enhance overall operational efficiency to ensure a leading position in the industry. Meanwhile, we are committed to nurturing new businesses and forming a full-process service model driven by technological innovation.

Focusing on rail transit design innovation, the Group actively promotes technological innovation in various business segments, striving to realize a new mode of smart and green development. In 2023, we concentrated on risk prevention systems, digital platforms, and intelligent operation and maintenance of platform doors in the field of rail transit technology innovation, all of which have reached key stages in R&D. While focusing on rail transit technology development, the Residential Institute of the Group also focused on the application of BIM technology, building energy-saving technology, prefabricated building technology, as well as the integration of new technologies such as cloud computing and big data. We are increasing R&D investment to provide more efficient, green, and intelligent solutions for urban construction, and continuously iteratively update core technologies.

## OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (Continued)



Table: Progress of key scientific research projects of UCD in 2023

Project	Project brief
Key Technology and Equipment R&D for Major Risk Prevention and Control in Urban Rail Transit Operations	Focusing on the technical solutions for station intelligent fire protection integrated systems, perimeter intrusion alarm systems, and urban rail flood warning systems; the project has entered the equipment R&D phase.
High-Quality Comprehensive Evaluation and Digital Simulation Platform for Urban Rail Transit	Conducting research on sustainable theoretical systems for urban rail transit, developing standalone versions of the urban rail energy consumption evaluation platform, urban rail performance evaluation platform, and financial sustainability evaluation platform, and publishing the paper titled <i>Comprehensive Evaluation of Sustainable Development of Urban Rail Transit Based on Complex Mega-System Theory</i> 《基於複雜巨系統理論的城市軌道交通可持續發展綜合評價》 in the <i>Urban Transit Journal</i> 《都市快通期刊》.
Implementation Research on the Construction of Urban Rail Transit Data Centers and Big Data Platforms	Constructing a private cloud platform and establishing a big data analytics platform, while conducting research, planning, and design related to the intelligent operation and maintenance of platform doors.
Research on Key Technologies for the Complete Set of High-Stiffness Low-Reinforcement Pre-Stressed Shield Tunnel Structures and Construction Methods	Optimizing the design and engineering application of pre-stressed pipe-jacking structures.
Research on Practices and Countermeasures for Multilevel Urban Rail Transit Development in Metropolitan Areas	Studying the development models and technical standards of multilevel urban rail transit in metropolitan areas, and innovating a passenger flow prediction method.
Research on Key Technologies for Comprehensive Treatment of Tunnel Diseases in Rail Transit Operations	Developing grouting materials for the treatment of tunnel leakage diseases, establishing an intelligent diagnosis system for tunnel diseases in rail transit operations; currently advancing the technical selection of new structural repair and reinforcement methods for existing tunnels.

## OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (Continued)

Table: Key Scientific Research Awards of Beijing Urban Construction Design & Development Group in 2023

Name of the Achievement	Category of Award	Grade
Development and embedding technology of special nylon casing for pre-embedding of urban rail transit structure	Science and Technology Progress Award	Second Prize
Key technologies of construction and safety risk control of Zhengzhou Rail Transit Project	Science and Technology Award	Second Prize
Micro-deformation control and information-based construction technology for close penetration of shield tunnel	Science and Technology Progress	Second Prize
Research and development of large-scale freezing engineering test platform	Science and Technology Progress Award	First Prize
Hard occlusion pile waterproof curtain for the water-rich sand pebble stratum in confined space	Science and Technology Progress Award	Second Prize
Technical standard for fire safety of integrated project of station and city (DB11/1889-2021)	Standard Science and Technology Innovation Award	First Prize
Research and application of key technologies in construction of ultra-low energy consumption civil buildings	2022 China Award for Science and Technology in Construction	Second Prize
Research and application of key technology of shield measurement in urban rail transit	2023 Geographic Information Technology Progress Award	Second Prize
Research and application of key technologies for urban rail transit management based on spatiotemporal information	2023 Surveying and Mapping Science and Technology Award	Second Prize
Research and application of precipitation recharge technology for pebble formation construction	Science and Technology Progress Award for Engineering construction	Second Prize
Standard for construction quality acceptance of metro engineering (GB/T 50299-2018)	Standard Science and Technology Innovation Award	Third Prize
Technical regulations for sonar seepage detection of waterproof curtain in construction foundation pit (DBJT 45-117-2021)	Standard Science and Technology Innovation Award	First Prize
Research on key technologies and application of geological remote sensing in land transportation engineering	Science and Technology Award – Science and Technology Progress Award of China Transportation Association	First Prize

## OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (Continued)



Name of the Achievement	Category of Award	Grade
Research and application of key technologies for cross-sea rail transit measurement and monitoring in large-scale complex environment	2023 Surveying and Mapping Science and Technology Progress Award of Beijing Society of Surveying and Mapping	Grand Prize
Research on technical standards for the protection of rail transit facilities in Changzhou	2023 Surveying and Mapping Science and Technology Progress Award of Beijing Society of Surveying and Mapping	First Prize
Research and application of precision testing equipment for urban long tunnel engineering structure	2023 Surveying and Mapping Science and Technology Progress Award of Beijing Society of Surveying and Mapping	Second Prize
Research and application of key technologies for safety monitoring in urban rail transit engineering	Science and Technology Progress Award of Beijing Rail Transit Society	First Prize
Research and application of precipitation recharge technology for pebble formation construction	Science and Technology Progress Award of Beijing Rail Transit Society	Second Prize
Research on “overload preloading + precipitation consolidation” technology to eliminate negative friction in deep soft soil layers caused by large-area filling	Urban Rail Transit Technology Innovation and Promotion Project	Technology Innovation and Promotion Project (Technology)
Precipitation recharge technology for resource construction in sand pebble stratum	Urban Rail Transit Technology Innovation and Promotion Project	Technology Innovation and Promotion Project (Technology)
Demonstration and analysis technology of groundwater control in deep water-rich strata	Urban Rail Transit Technology Innovation and Promotion Project	Technology Innovation and Promotion Project (Technology)
Key technologies and application of urban traffic survey based on multi-source location data fusion	2023 Science and Technology Progress Award of China Intelligent Transportation Systems Association	Second Prize

## OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (Continued)



### Case: Assembled metro station construction technology

The assembled metro station construction technology is a set of major core technologies with completely independent intellectual property rights, which is based on design technology, component production technology and construction technology, centered around standardized and green products, and is supported by factory production, mechanical assembly, and management informatization practices. This technology represents a new approach to industrial construction, which has irreplaceable advantages in terms of high quality, high efficiency, safety and green environmental protection. UCD has applied the technology to demonstration projects such as Changchun assembled metro station cluster, Qingdao assembled metro station cluster and Shenzhen assembled metro station cluster. Currently, a total of 31 assembled metro stations have been built or are under construction in China, of which 6 stations have been put into operation and 5 stations have completed civil structures. As a result, the largest assembled station cluster in China and even in the world has been formed, which not only has a positive impact on the transportation industry itself, but also has made significant contributions to the sustainable development of cities, demonstrating the tremendous value of technological power.

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》, the *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》, the *Copyright Law of the People's Republic of China* 《中華人民共和國著作權法》, the *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 national laws and regulations. The *Intellectual Property Management Measures* 《知識產權管理辦法》 and other internal rules and regulations have been formulated to continuously strengthen the management of intellectual property rights and protect the legitimate rights and interests of the state, enterprises and individuals.

Table: Intellectual Property Data of UCD in 2023

Indicator	Unit	Residential Institute	Rail Company	Exploration & Surveying Institute	The Institute	
Number of applications for invention patents and utility model patents in 2023	Number of applications for national invention patents and utility model appearance patents	Item	3	9	42	158
	Number of applications for software copyrights	Item	0	0	17	61
Number of patents granted in 2023, including invention patents and utility model patents	Number of patents granted	Item	4	14	36	118
	Number of software copyrights obtained	Item	0	0	14	61
Accumulative number of patents granted, including invention patents and utility model patents	Number of patents granted	Item	57	63	181	578
	Number of software copyrights obtained	Item	34	2	122	405



## SCIENTIFIC AND TECHNOLOGICAL INNOVATION ACHIEVEMENTS

Through the continuous efforts and research of employees of the Group, we obtained significant technological innovation achievements this year. In particular, the Residential Institute’s “research on key technology of ultra-low energy consumption civil building construction and its application” received the second prize of the 2022 China Award for Science and Technology in Construction, “research on key technology of greening and functional improvement of existing buildings and its application in urban renewal” was recognized as reaching the international advanced level by the Beijing Municipal Commission of Housing and Urban Rural Development, and “research and practice of Passive House Premium of German – Tianjin Wuqing Nature Square Hotel project” was also recognized as reaching the international advanced level by Tianjin Technology Property Exchange Co., Ltd., fully demonstrating our strength and determination in technological innovation, and setting a benchmark for the development of the industry. In 2023, the Group obtained 59 scientific and technological awards.

Table: List of scientific and technological innovation awards of the Group in 2023

Award Project	Award	Grade
Research on prefabricated assembly construction technology for subway stations and its application	Urban Rail Transit Science and Technology Progress Award	Grand Prize
Key technology of quantitative evaluation and decision support for urban rail transit and its application	Urban Rail Transit Science and Technology Progress Award	First Prize
Innovation and key technology research and development of the rail type rubber wheel system (Yunba) and its application	Urban Rail Transit Science and Technology Progress Award	First Prize
Research on the evolution mechanism of supply and demand interaction and key technologies for optimization and renovation in large scale urban rail transit network	Urban Rail Transit Science and Technology Progress Award	First Prize
Resilient structure system and digital technology for tunnel of urban rail transit in soft soil	Urban Rail Transit Science and Technology Progress Award	First Prize
Research and application of Model-As train for urban rail transit in mountain area	Urban Rail Transit Science and Technology Progress Award	Second Prize
Technology of multi-source data-driven intelligent diagnosis and treatment on structure diseases of bridge and tunnel of urban rail and dynamic performance evaluation	Urban Rail Transit Science and Technology Progress Award	Second Prize
Integrated management platform for cloud-based ERP+ design and manufacturing of survey and design enterprises	The 8th State-owned Enterprise Management Innovation Achievements for 2022	First Prize
Study on the treatment for abnormal rail corrugation in basic vibration-control section of urban rail transit and demonstration project	Science and Technology Progress Award of Beijing Society of Metros	Grand Prize
Research and application of key technology for operational optimization and improvement of existing urban rail transit network	Science and Technology Progress Award of Beijing Society of Metros	First Prize

## OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (Continued)

Award Project	Award	Grade
Technological innovation and application of steady-state and high-effective construction of subway tunnel under coastal rock and soil medium conditions	Science and Technology Progress Award of Beijing Society of Metros	First Prize
Research on safety theory and packaged technology of resilience of underground structures	Science and Technology Progress Award of Beijing Society of Metros	First Prize
Technology for dynamic evaluation on capacity load of urban rail transit networks in megacities and its application demonstration	Science and Technology Progress Award of Beijing Society of Metros	First Prize
Key technology of urban rail transit existing facilities optimization and enhancement plan and its application	Science and Technology Progress Award of Beijing Society of Metros	First Prize
Modern tramway demonstration line project in Chengyang District, Qingdao	Science and Technology Progress Award of Beijing Society of Metros	Second Prize
Research of technology for ground subsidence control in large cross-section mine method construction and its application in Shijiazhuang metro project	Science and Technology Progress Award of Beijing Society of Metros	Second Prize
Integration of key technologies in Taiyuan South railway station integrated transportation hubs in the context of the station-city integration and its application	Science and Technology Progress Award of Beijing Society of Metros	Second Prize
Micro-deformation control and information-based construction technology for close penetration of shield tunnel	Science and Technology Progress Award of Beijing Society of Metros	Second Prize
Research of smart gap detection system and its application	Science and Technology Progress Award of Beijing Society of Metros	Second Prize
Research of key technology in operation safety and emergency management of urban integrated pipeline corridor and its application	Science and Technology Award of China Occupational Safety and Health Association	Second Prize
Research and industrialization of assembled railway technology	2022 Beijing Science and Technology Progress Award	First Prize
Research on key smart technology of rail transit based on cloud platforms and its application	2022 Beijing Science and Technology Progress Award	Second Prize
Key technology for efficient visual data representation and operational decision-making in megacities traffic and its application	2022 Beijing Science and Technology Progress Award	Second Prize



### Case: Rail transit reserved engineering of the project of shared auxiliary facilities for green heart and three public buildings

The Rail Transit Reserved Engineering of the Project of Shared Auxiliary Facilities for Beijing's Green Heart and Three Public Buildings is a large-scale and challenging project. Specifically, the construction of Grand Theatre Station has applied the complicated large-span and suspended-dome steel structures. Through research, we have successfully developed high-precision machining technologies to resolved the difficulties of processing and installation of special-shaped steel structures; innovatively identified the circular suspended-dome steel structure and its construction method, while improved construction procedures and temporary support forms through analysing with BIM and finite element software; developed temporary fixtures for inclined steel columns, which enhanced the construction stability; and ensured the tensioning sequence and construction safety of the asymmetric ring cable through analysing with BIM model and finite element software.

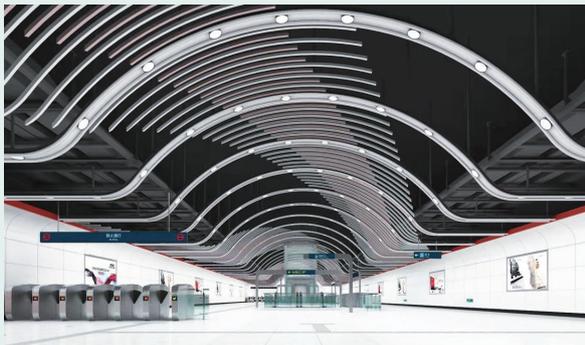
The scientific and technological innovation and research on key technologies of this project provided valuable experience and technical support for similar projects, and received the 2023 Outstanding Achievement Award of Beijing Municipal Engineering QC Group Activity (2023 年度北京市政工程QC小組活動優秀成果獎項). In addition, we have applied for two invention patents and one utility model patent, which is of great significance to promote the modern and intelligent urban construction of China.



### Case: Green integrated technology for ventilation and air conditioning of urban rail transit

In response to the special functioning conditions of underground stations of urban rail transit, UCD has researched and applied the theory of building thermal environment and key technologies. As a result, we have formulated the technical system of transitional thermal comfort in underground stations of urban rail transit and established the green standard system of building thermal environment of domestic urban rail transit. Besides, we have also developed environment-friendly ventilation and air-conditioning technology and equipment, which greatly reduces the scale of the project and the problems of land expropriation and demolition and realizes the dual goals of saving investment and reducing consumption, thus laying a solid foundation for the achievement of the goals of “carbon neutrality” and “carbon peaking”.

The technology has been successfully applied to the Metro Line 2 Project in Qingdao, the Metro Line 1 Project (Phase III) in Hangzhou and the Xindian Vehicle Section Project of Fuzhou metro, and won 6 national and provincial science and technology awards, such as the Second Prize of National Award for Scientific and Technological Inventions in 2016 (2016年國家科學技術發明二等獎) and the Second Prize of National Award for Progress in Science and Technology in 2020 (2020年國家科技進步二等獎). We have obtained 8 patents, participated in 7 national and organizational standards and published more than 18 writings and papers, which fully demonstrates the innovation and practicability of the technology and important contributions to the development of urban rail transit.



Picture: An application scenario of the Metro Line 2 Project in Qingdao



Picture: A scene of Xindian Vehicle Section of Fuzhou metro

## PROMOTION OF INDUSTRY EXCHANGES

UCD actively participates in all kinds of the industry-college-institute cooperation and the formulation of industry standards. By participating in major academic exchanges and organising technical seminars in the industry, it works with partners to jointly promote the development of China's rail industry. During the Reporting Period, Residential Institute participated in the issue of 4 standards, including 3 local standards of Beijing and 1 associational standard; and the Group completed the preparation of 242 standards of all kinds.

In 2023, Residential Institute proactively participated in a number of major exhibitions and events, such as the Greenbuild International Conference, China International Exposition of Housing Industry & Products and Equipment of Building Industrialization, China International Fair for Trade in Services and International Urban Rail Transit Exhibition, and built up a close partnership with the authoritative media including Beijing Television, Shoudu Jianshe Bao and people.cn to display classic projects and practical achievements of scientific research of Residential Institute in green buildings, urban renewal, high-standard residential buildings and other areas and to interact and cooperate in depth with industry peers. In addition, we have also actively promoted the establishment of the prefabricated construction branch under the Xiong'an New Area Engineering and Consulting Association to facilitate the development of prefabricated construction in Xiong'an New Area. Meanwhile, we have worked closely with relevant government authorities, industry experts and business representatives to jointly promote the popularization and application of green buildings, thus making contributions to the green development of Xiong'an New Area.

## Supplier Management

UCD understands the importance of supplier management to the long-term development of the Group and has strengthened the supply safety coefficient and supply reliability through the standardized supplier management system. To strictly control procurement risks, the Group has effectively identified the ESG risks of suppliers and prioritized to cooperate with those suppliers adopting eco-friendly resources and implementing low-carbon concepts. In addition, the Group continues to improve the communication and collaboration with suppliers, strengthen information sharing and enhance the quality of procurement to ensure the compliant operation of the supply chain.

Based on the Group's business demands, we have implemented a differentiated management strategy for suppliers. We categorize them into design service suppliers and engineering service suppliers for the collection of supplier information, as well as classification and assessment, to establish a list of qualified suppliers after strict assessment.

### DESIGN SERVICE SUPPLIERS

In order to manage the design service suppliers in a standardized manner, the Group has formulated 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)》, according to which the Group conducts the selection, technical management and quality control, and agreement fulfillment appraisal on design service suppliers, so as to ensure cooperating with well-qualified suppliers that delivery high quality services.

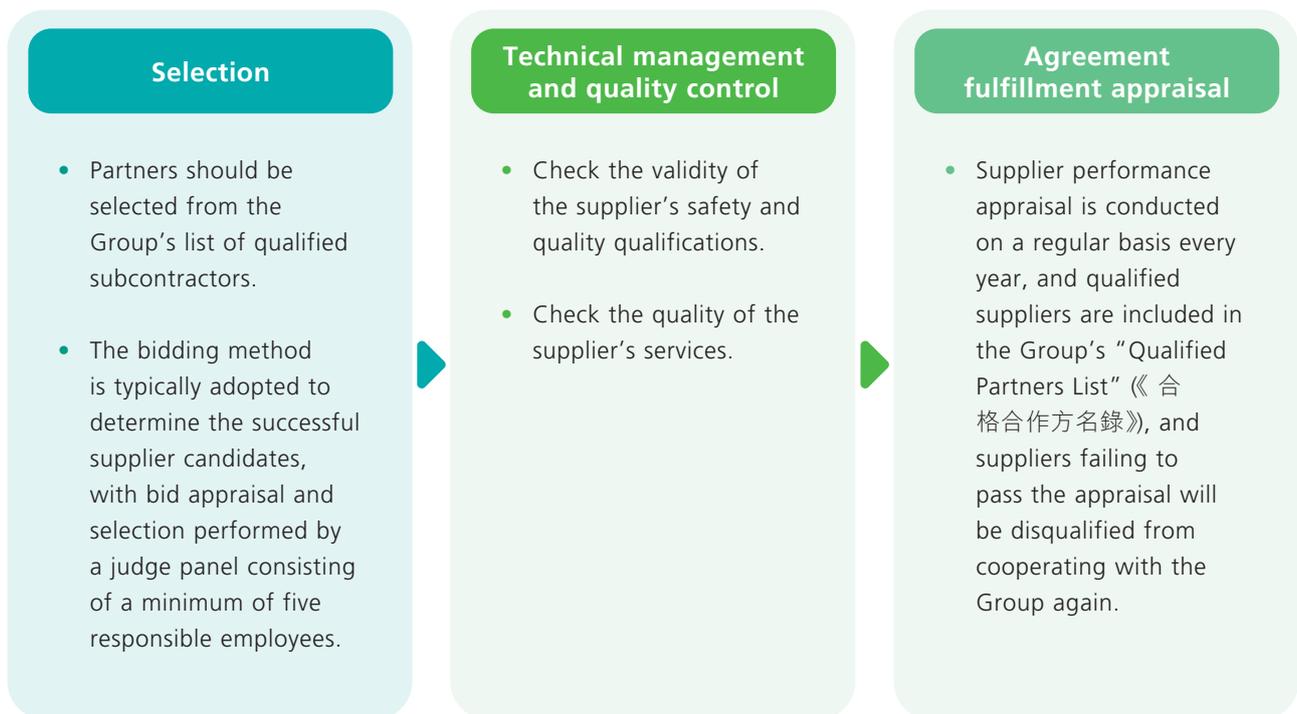


Chart: Specific requirements for design service suppliers



## ENGINEERING SERVICE SUPPLIERS

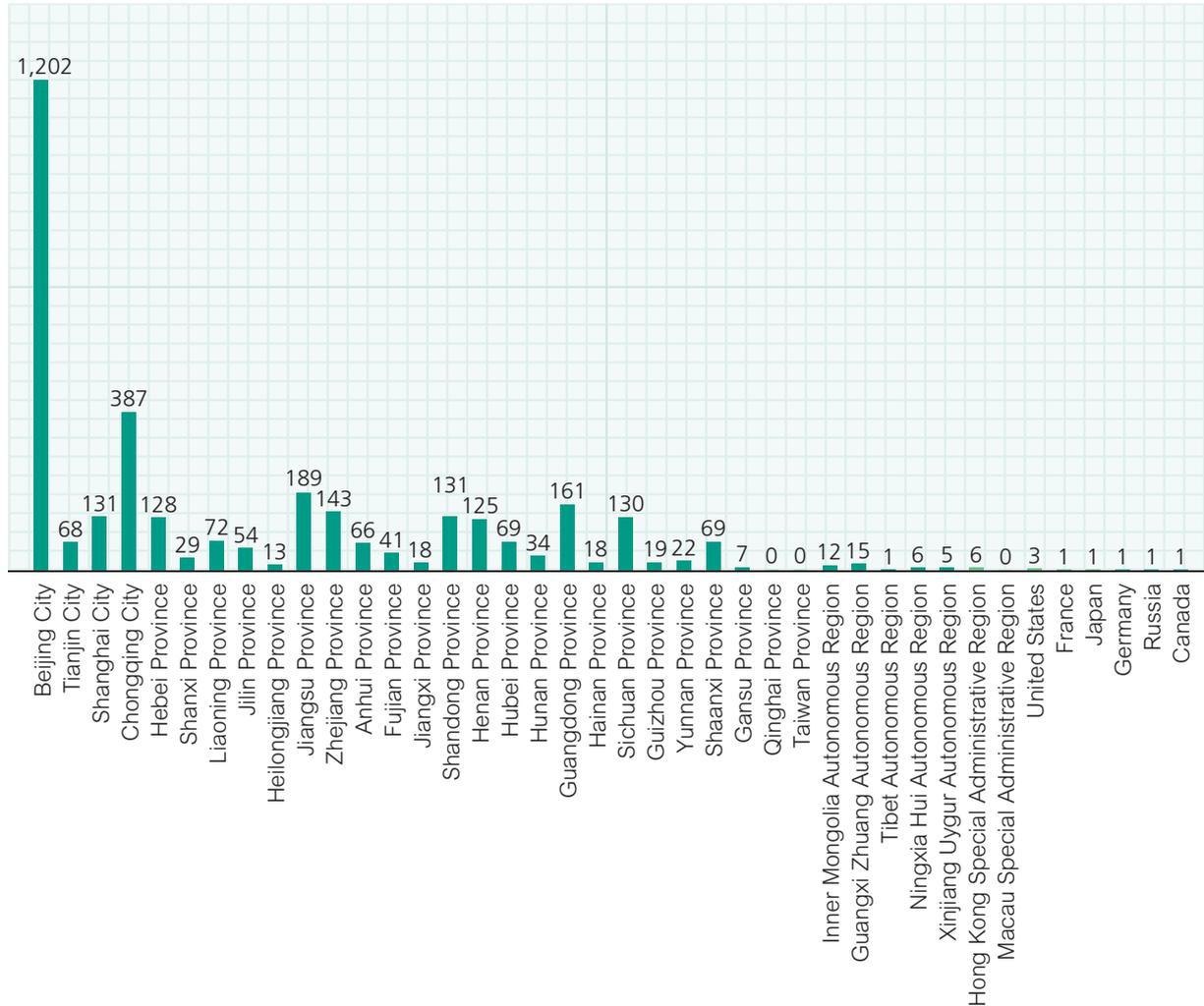
The Group has formulated the *Rules on the Tendering Management for Construction Projects of Beijing Urban Construction Design & Development Group Co., Limited* (《北京城建設計發展集團股份有限公司施工項目招標管理規定》), the *Rules on Subcontracting Management for Professional Projects of Beijing Urban Construction Design & Development 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 management documents on suppliers, which require the suppliers to organize the construction in strict accordance with the construction quality inspection and assessment standards, construction and acceptance specifications issued by the state, as well as the provisions of relevant technical documents, and to ensure the quality of projects by satisfying the requirements of the relevant parties in terms of construction technology, environmental protection, occupational health and safety.



Chart: Control procedure for professional subcontractors

## OPERATIONAL EXCELLENCE, AND PROFIT GENERATION (Continued)

In 2023, the Group had 3,380 qualified suppliers in total, and the regional distribution of the suppliers is as follows:



Picture: Suppliers by geographical region

The Exploration & Surveying Institute, Rail Company and Residential Institute, by marking reference to relevant systems of the Group and based on their actual situation, optimized their management on suppliers and standardized procurement behavior to prevent the integrity risk in procurement and ensure the quality and safety of procurement. Exploration & Surveying Institute formulated 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.* 《北京城建勘测設計研究院有限責任公司生產類供方評審、管理及分包申請審批流程管理規定》, which further standardize the review of suppliers, the use of the *List of Qualified Suppliers* 《合格供方名錄》, and the supervision of suppliers. Rail Company implemented the *Implementation Rules for Professional Engineering Subcontracting Management* 《專業工程分包管理實施細則》 to conduct standardized management on recruitment, construction management and performance appraisal regarding professional engineering subcontractors on the basis of the Group's management on subcontractors. Residential Institute developed the *Procurement Management Measures of Beijing Institute of Residential Building Design & Research Co., Ltd.* 《北京市住宅建築設計研究院有限公司採購管理辦法》 to strengthen the whole process management of centralized procurement, access, evaluation and removal of suppliers.

# 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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UCD takes “hard-working” as its corporate value, and weaves the growth of employees to the development of the Group by providing them an inclusive, clean and comfortable working environment. At the same time, we unblock the promotion channel for our employees, with their immediate needs concerned and their rights and interests protected, and thus a broad career development space is created.

## Talent Management

Based on the principle of people-oriented talent management, the Group seeks outstanding talents and establishes a comprehensive incentive and empowerment system to support their diversified development. We strictly comply with the labor-related laws, regulations and practices applicable to the places where we operate, and have established a comprehensive employee protection system to safeguard their basic rights and interests and thus promote the sustainable and healthy development of the Company.

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

The Group attaches importance to sustainable labor relationships and strictly complies with the *Labor Law of the People's Republic of China* 《中華人民共和國勞動法》. It has formulated an internal management system to ensure that the procedures for recruitment, induction, employment and resignation comply with the relevant regulations. Each branch has formulated relevant policies according to its own situation and resolutely eliminates illegal practices such as the recruitment of children and forced labor.



## BUILD ON TEAM COHESION THROUGH EFFECTIVE STAFF CARE (Continued)

### Recruitment and dismissal measures of UCD:

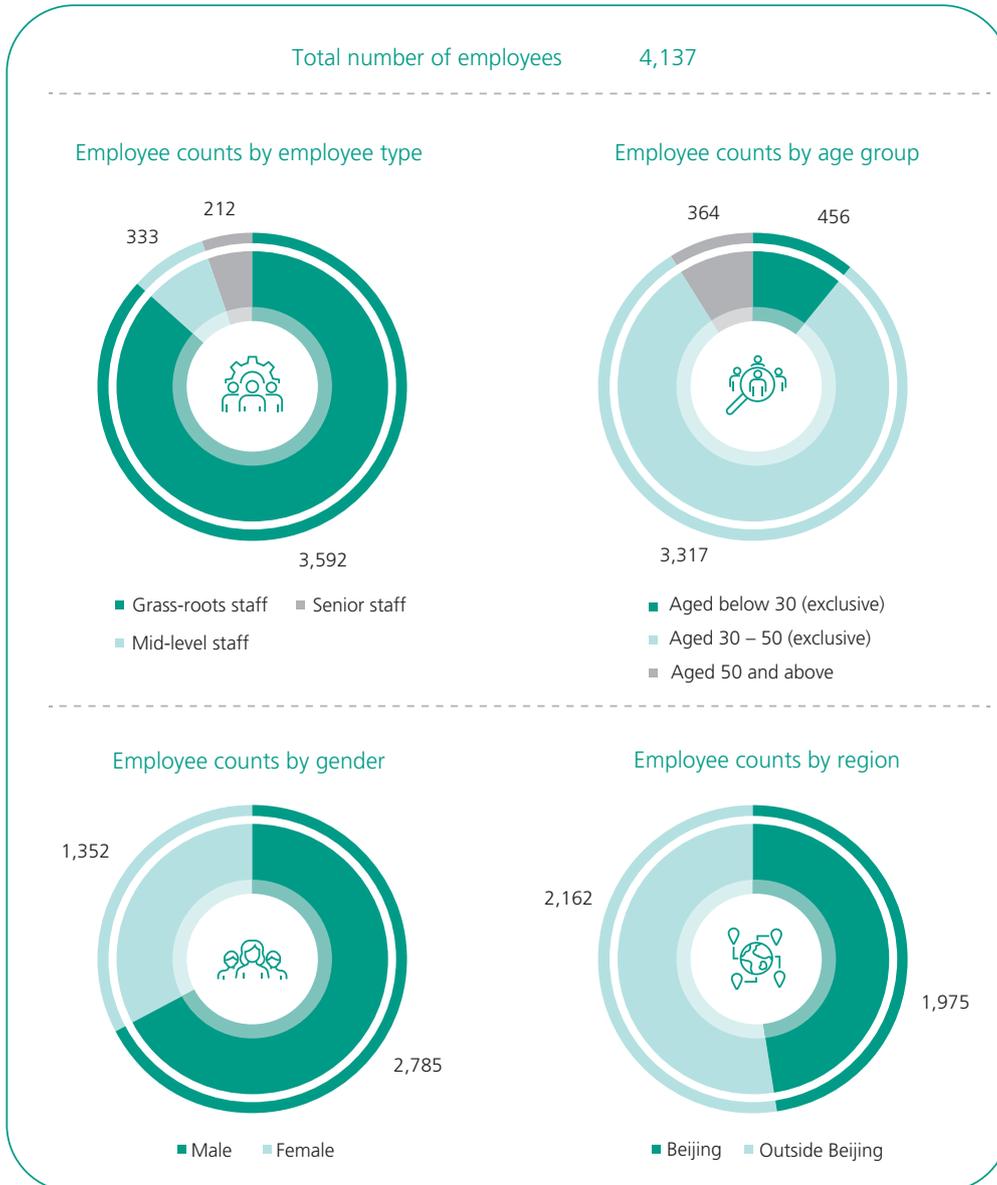
- |               |  |
|---------------|--|
| • Recruitment | <i>Rules of Beijing Urban Construction Design &amp; Development Group Co., Limited on Recruitment Management</i> 《北京城建設計發展集團股份有限公司招聘管理辦法》  |
| • Induction   | <i>Administrative Measures for the Employment of Employees of Beijing Urban Construction Design &amp; Development Group Co., Limited (Interim)</i> 《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  | <i>Labor Contract Management Measures of Beijing Urban Construction Design &amp; Development Group Co., Limited</i> 《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 | <i>Administrative Measures for the Resignation of Employees of Beijing Urban Construction Design &amp; Development Group Co., Limited (Interim)</i> 《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)》 |

During the recruitment process, we formulated our talent introduction strategy in accordance with the *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》 in order to create an enlightened, efficient and dynamic talent system and to accelerate the pace of talent team building. During the Reporting Period, the Group employed a total of 4,137 staff, with a total staff turnover rate of 6.26%.

In accordance with the *Administrative Measures for New Staff Induction 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)》, we fully understand the authenticity of the information of the candidates, verify the age of the candidates, ensure that the personal information is true and in compliance with the regulations, thus avoid the problems of child and forced labor. Meanwhile, following the principles of free will, equality and consensus, we enter into labor contracts with every new staff, and resolutely avoid any forms of forced labor. In the event that any instances of forced labor or child labor are identified, they will be strictly handled in accordance with relevant laws and regulations as well as internal requirements of the Group. In addition, 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 salary settlement for resignation in accordance with the Group's management requirements to protect the legitimate rights and interests of employees. As of the end of the Reporting Period, there were no incidents of child labor or forced labor in the Group.

## BUILD ON TEAM COHESION THROUGH EFFECTIVE STAFF CARE (Continued)

Table: Employment and Turnover of Employees of the Group



## BUILD ON TEAM COHESION THROUGH EFFECTIVE STAFF CARE (Continued)

Human Resource Capital Performance		Unit	2023
Total Employee Turnover Rate		%	6.26
Employee turnover rate by employee type	Grass-roots staff	%	6.77
	Mid-level staff	%	3.00
	Senior staff	%	2.83
Employee turnover rate by age group	Aged below 30 (exclusive)	%	10.75
	Aged 30 – 50 (exclusive)	%	5.73
	Aged 50 and above	%	5.49
Employee turnover rate by gender	Male	%	5.89
	Female	%	7.03
Employee turnover rate by region	Beijing	%	6.08
	Outside Beijing	%	6.43

## DIVERSITY AND EQUALITY

The Group proactively builds an atmosphere of diversity and equal opportunity in the workplace, strictly complies with the *Labor Law of the People's Republic of China* (《中華人民共和國勞動法》), and opposes discrimination on gender, age, religion, ethnicity, family, and health condition, etc. We treat every employee equally and carry out staff recruitment, promotion and salary management in a fair and just manner, providing every employee with fair opportunities, comprehensive welfare protection and equal training courses and other group resources. In order to protect the legitimate rights and interests of female employees, we fully implement labor protection for female employees in welfare benefits, insurance, holidays, and work environment.

## REMUNERATION AND PROMOTION

The Group is committed to building a remuneration system that is competitive externally and fair internally, and has established a sound mechanism to standardize remuneration management based on the actual operating conditions. In the meantime, we continuously optimize remuneration management measures to give full play to the incentive effect of the remuneration system on talents and to attract and retain outstanding talents.

In the Group's promotion system, we attach great importance to the establishment and maintenance of the rank system. It has established clear systems for post-establishment, post-evaluation, post-adjustment, talent management, and incentives, providing a more flexible and broader promotion space for employees, and continuously improving their work enthusiasm. In the meantime, Exploration & Surveying Institute, Rail Company and Residential Institute have developed competitive remuneration management and promotion systems based on their actual situation and development needs, and determine employees' salaries and offer promotion opportunities according to their performance and rank.



**Systems Relating to Remuneration Management of UCD:**

The Institute	<p><i>Measures for Employee Remuneration Management and Calculation of Beijing Urban Construction Design &amp; Research Institute</i> 《北京城建設計研究總院職工薪酬管理與核算辦法》</p>
	<p><i>Administrative Measures for Positions and Ranks of Beijing Urban Construction Design &amp; Research Institute</i> 《北京城建設計研究總院崗位及職級管理辦法》</p>
	<p><i>Measures for the Administration of Total Wage of Beijing Urban Construction Design &amp; Development Group Co., Limited</i> 《北京城建設計發展集團股份有限公司工資總額管理辦法》</p>
Rail Company	<p><i>Remuneration Management System (Trial) of Beijing Urban Rail Transit Construction Engineering Co., Ltd.</i> 《北京城建軌道交通建設工程有限公司薪酬管理制度(試行)》</p>
	<p><i>Measures of Beijing Urban Rail Transit Construction Engineering Co., Ltd. for the Management of Staff Benefit Bonuses (Trial)</i> 《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)》</p>
Exploration & Surveying Institute	<p><i>Remuneration Management System of Beijing Urban Construction Exploration &amp; Surveying Design Research Institute Co., Ltd.</i> 《北京城建勘測設計研究院有限責任公司薪酬管理制度》</p>
	<p><i>Rules for the Implementation of Remuneration Management of Beijing Urban Construction Exploration &amp; Surveying Design Research Institute Co., Ltd.</i> 《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》</p>
Residential Institute	<p><i>Rules for the Implementation of Remuneration Management of Beijing Institute of Residential Building Design &amp; Research Co., Ltd.</i> 《北京市住宅建築設計研究院有限公司薪酬管理制度》</p>
	<p><i>Measures for Full Staff Performance Management of Beijing Institute of Residential Building Design &amp; Research Co., Ltd.</i> 《北京市住宅建築設計研究院有限公司全員績效管理辦法》</p>

### WORKING HOURS AND HOLIDAYS

The Group establishes a standardized working hours management and vacation mechanism to standardize the management of working hours, attendance, leave and holidays of employees and support a balance between their lives and work. For positions with different needs, we implement standard working hours and flexible working hour system based on the 8-hour working 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. In addition, we provide flexible and dynamic work hour schemes for employees. Employees can apply for overtime by filling in the *Overtime Approval Form* 《加班審批表》 according to their work needs for overtime wages to ensure reasonability and fairness of working hours and remunerations.

On the basis of public and statutory holidays stipulated by the government, the Group establishes sick leave, casual leave, marriage leave, home leave, funeral leave, maternity leave, work-related injury leave, public holiday and annual leave for employees. At the same time, for employees who are far away from their families, we specially provide twenty to thirty days of home leave, improving employees' sense of warmth, happiness and satisfaction.

#### Systems Relating to Employee Attendance, Leave and Holidays of UCD:

General principles	<i>Labor Law of the People's Republic of China</i> 《中華人民共和國勞動法》
Work attendance, leave and holidays	<i>Rules on Management of Work Attendance, Leave and Holidays of Beijing Urban Construction Design &amp; Research Institute Co., Ltd.</i> 《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》

### DEMOCRACY AND CARE

The Group concerned about the working experience of its employees, proactively listens to their advice, keeps open communication channels, and provides them with warm corporate care and solid support. Through employee congress, work meetings, in-house publications, and WeChat public account, we share the voices of employees and answer their questions. In 2023, the Group held its first eighth employee congress to supervise the rectification and implementation of the problems raised by employees in relation to reading activities.



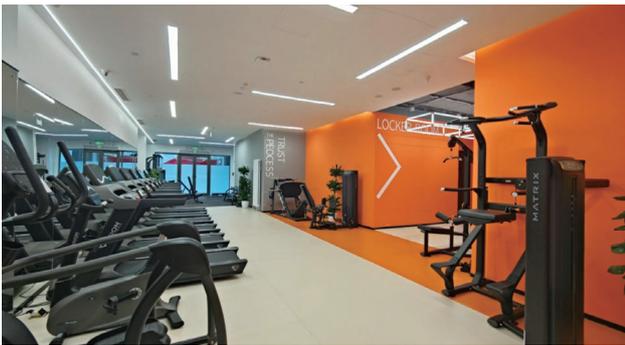
#### Case: Building a green channel for employees in the Residential Institute to promote long-term development

The Residential Institute has formulated a *Registration Form for the Reception of "Green Channel" Issues in the Functional System of the Residential Institute* 《住宅院職能系統「綠色通道」接收問題辦理情況登記單》 to improve the employee appeal mechanism, smooth employee appeal channels, and take targeted measures to jointly promote long-term development. In addition, in 2023, the Residential Institute conducted an anonymous survey on holiday greetings and cafeteria satisfaction throughout the year, with an employee satisfaction rate of over 80%.

## BUILD ON TEAM COHESION THROUGH EFFECTIVE STAFF CARE (Continued)

We also optimize and promote employee health care plans with various campuses, strengthen our assistance to employees in difficulty. We actively carry out employee care activities, such as “holiday greetings”, “heartwarming stations”, “fitness center of the design building”, “sports meetings for employees” to show our care to all employees through comprehensive and multiple channels, and enhance their sense of happiness in the enterprise. In 2023, the Group invested RMB7.2 million in employee care programs and RMB500,000 in the construction of an urban construction design building employee home.

- |                       |  |
|-----------------------|--|
| Rail Company          | <ul style="list-style-type: none"> <li>The Rail Company attaches great importance to the physical and mental health and welfare of its employees, thus it conducts in-depth research at the grassroots, and actively carries out a series of care programs, such as “setting up mother and baby rooms and organizing elderly activities”, “distributing comfort products to retired employees”, and “regular physical examinations”, to care about the living and working conditions of employees, protect their rights and interests, and share the achievements of the enterprise. In 2023, the Rail Company extended its deep care to over 1,000 front-line employees.</li> </ul> |
| Residential Institute | <ul style="list-style-type: none"> <li>The Residential Institute carries out employee psychological health counseling, special care for females, and other employee care activities, and employee cultural and sports activities, to enhance employees sense of belonging and corporate cohesion. In 2023, the Residential Institute arranged an additional special physical examination for female employees, with a total expense of RMB18,560.</li> </ul>   |



Picture: Fitness center of the design building



Picture: Greetings to Xiong'an international trade center project

## BUILD ON TEAM COHESION THROUGH EFFECTIVE STAFF CARE (Continued)



### Case: The Exploration & Surveying Institute comforts front-line employees who participate in disaster relief in Mentougou

In August 2023, Du Suri Typhoon severely damaged roads and bridges of Beijing and other urban infrastructures. Leaders of the Exploration & Surveying Institute rushed to the front line to comfort employees who had been sticking with flood control and emergency rescue for days and bring them supplies. Leaders of the Exploration & Surveying Institute showed their blessings and greetings to the front-line employees and reminded them to pay attention to the high temperature and ensure their safety and health.



### Case: “Table Tennis Competition to Embrace the Future and Striving for a New Era” – celebrating the 40th anniversary of the founding of the Institute – staff table tennis competition

In June 2023, the Residential Institute held the “Table Tennis Competition to Embrace the Future and Striving for a New Era” to celebrate the 40th anniversary of the founding of the institute. Through the group points system, the competition intended to enhance the collaboration and friendship among employees and bring joy of sports.



Picture: The table tennis competition scene



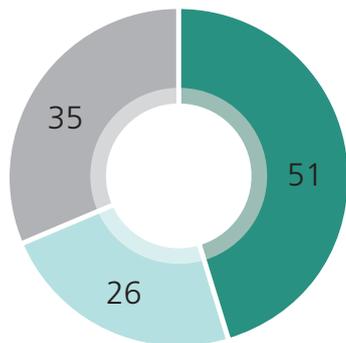
## Craftsmanship

UCD regards the cultivation of talents as the core competitiveness and driving force for future development of the Group. It has formulated the *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》) and the *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》) to build a comprehensive employee training system and create opportunities of growth for employees. We aim to create training courses with rich, flexible, and diverse programs to provide systematic support for expanding the growth path of employees.

To promote our training, we implement training plans for the Company and each unit, carry out activities such as internal trainer selection, new employee training, external expert training, recommendation of outstanding talents, and technical specification competitions, evaluate the achievements of talent cultivation, and promote the importance of talent cultivation in each unit. In addition, we actively promote all directors to participate in training, regularly organize related transaction training, ESG training and project research activities, continuously deepen the understanding of the listing rules by the directors, supervisors and senior management, and strive to improve the quality of corporate ESG. In order to ensure performance, the directors and supervisors need to provide written confirmation on performance, training, and compliance on annual and semiannual basis. In 2023, the total training hours of the staff and directors of the Group was 182,954 hours, and the training rate of the staff and directors was 98.4%.

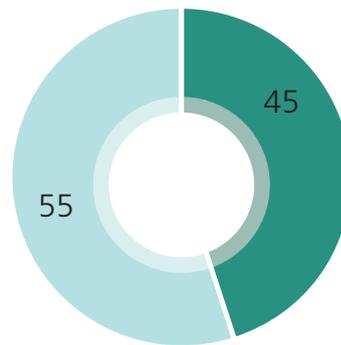
### Employee Training

Average hours by employee type



■ Grass-roots staff ■ Mid-level staff ■ Senior staff

Average training hours by gender



■ Male ■ Female



#### Case: The centralized induction training for new employees was completed in 2023

In August 2023, the Exploration & Surveying Institute conducted a centralized induction training for 2023 new employees to accelerate their understanding of corporate culture, overview, glorious history, and outstanding performance, and to assist them in transitioning their roles from students to employees. During the one week of centralized training, the Exploration & Surveying Institute continuously strengthened the team awareness of new employees through the unique integration of military and campus culture.



### Case: Expert lecture on “Cities and Transportation in the Perspective of Urban Economy 《城市經濟視角下的城市與交通》” training

In February 2023, the Group hosted the “Cities and Transportation in the Perspective of Urban Economy 《城市經濟視角下的城市與交通》” Expert Lecture Training Activity, drawing nearly 800 participants. The activity provided in-depth discussion and analysis on urbanisation, urban operation and urban renewal from an economic perspective. It served as a learning and exchange platform for participants to enhance their understanding and response to the challenges of urban economic development.



Picture: Training site for the expert lecture on “ Cities and Transportation in the Perspective of Urban Economy 《城市經濟視角下的城市與交通》”



### Case: Expert lecture on “ Reflections on the United Nations Global Award for Sustainable Development in Cities 《聯合國全球可持續發展城市獎引發的思考》” training

In November 2023, the Group conducted the training of “Reflections on the United Nations Global Award for Sustainable Development in Cities 《聯合國全球可持續發展城市獎引發的思考》”, an expert lecture, for professional and technical staff of urban planning, urban design, architecture and transportation. Through introducing the United Nations Global Award for Sustainable Development in Cities, this training promoted China’s experience in urban construction and governance and strengthened the Group’s talent cultivation.



Picture: Training site for the expert lecture on “Reflections on the United Nations Global Award for Sustainable Development in Cities 《聯合國全球可持續發展城市獎引發的思考》”



**Case: The Group's "Lean Management – Value Based" design and development open course competition was successfully held.**

In July 2023, the Group's "Lean Management – Value Based" Open Class Competition was successfully held. The Group's specialised committee acted as the judges for the activity, and more than 500 people participated in the activity both online and offline. During this activity, participants shared their experiences in enterprise management and the outcomes achieved, facilitating the transformation and passed on of advanced management techniques. This exchange helped elevate the management skills of the staff, laying a solid foundation for further advancing the Group's high-quality development.



Picture: Site of UCD's design open course competition



**Case: Residential Institute's 2023 third quarter management class training activity**

From July to September 2023, the Residential Institute's 2023 third quarter management class training sessions led by experienced trainers for middle management and key staff. These sessions aimed to enhance leadership skills in management. This training emphasises the combination of theoretical knowledge and practical application to ensure that every participant is able to apply what they have learned in their practical work.



Picture: Site of Residential Institute's 2023 third quarter management class training



**Case: The first “Final Event of the Competition on Knowledge Norms for Young and Middle-Aged”**

In November 2023, the Group hosted the first “Final Event of the Competition on Knowledge Norms for Young and Middle-Aged”, featuring 30 contestants from various business units. With a focus on fostering the growth of young and middle-aged talents, the event aimed to enhance participants’ proficiency in knowledge and norms application, fostering interdisciplinary learning and collaboration.



Picture: Site of final event of the competition on knowledge norms for young and middle-aged



## Anti-corruption

The Group prioritizes integrity across all aspects of its operations, from internal management to external collaborations. To enhance the Group's integrity development and anti-corruption measures, several compliance management systems have been formulated and published. These include the *Rules of Work of the Disciplinary Committee of Design & Development Group Co., Limited* 《設計發展集團股份有限公司紀委會工作規則》 and the *Key Points of Disciplinary Inspection Work in 2023* 《2023 年紀檢工作要點》 which outline specific requirements for combating corruption. Additionally, the Group has implemented an *Integrity Commitment Letter* 《廉潔承諾書》 signed by all staff members, prohibiting any form of bribery. In addition, the MTR Construction published the special management method of *Construction Project Labor Subcontracting Tender Management Measures* 《建設工程勞務分包招標管理辦法》 and the *Notice on Organising and Launching the Special Rectification Work of Illegal Businesses and Enterprises* 《關於組織開展違規經商辦企業專項整治工作的通知》 in 2023. Exploration & Surveying Institute has devised the *2023 Key Points of Disciplinary Inspection Work* 《2023 年紀檢工作要點》 and established the Integrity Building and Anti-Corruption Coordination Group to enhance the integrity building and anti-corruption coordination mechanism. This initiative aims to create a closed-loop system for integrity supervision work. The Residential Institute embarked on a special rectification work, and a number of reports such as the *Report on the Overall Implementation of Strengthening Integrity and Self-discipline in the Residential Institute during the Holiday Season* 《住宅院節日期間加強廉潔自律工作整體落實情況的報告》 were organized and completed by the Residential Institute's coordination group on party integrity and anti-corruption work to strengthen the implementation of integrity and self-discipline work.

**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

The Group has established a smooth whistleblowing mechanism, which encourages our staff to report violations of the rules and regulations via various channels. By adopting a model of centralized management, standardized registration, establishment of account books, and personnel accountability, it ensures that all the clues to the violations reported are properly handled and tracked. Meanwhile, we also obtain information on violations of regulations through different ways to conduct a comprehensive investigation and maintain strict confidentiality, so as to protect the rights and interests of the people involved. As of the end of the Reporting Period, the Group did not occur any cases of corruption, extortion, fraud and money laundering.

The Group conducts anti-corruption training annually in key aspects of important areas, so as to create a clean and upright operating environment. In 2023, the total training hours of the Group on anti-corruption was 114,030 hours, and 2 directors, 13 management members and 7,112 employees participated in the training.



### Case: The Group's activities on the themed party class and anti-corruption education report

In June 2023, the Group issued the *Notice on the Themed Party Class and Anti-corruption Education Report* (《關於講主題黨課、作廉政教育報告的通知》), which required the persons-in-charge of the Group's disciplinary and inspection organizations at all levels to take the lead in conducting one report on anti-corruption education in the course of reviewing and remediation, to conduct an in-depth analysis of typical negative cases, and to make use of cases around them to educate and warn the cadres. At the same time, the persons in charge of the Group's disciplinary and inspection organizations at all levels carried out policy briefings and urged cadres with problems to make a voluntary confession on their problems to the organization.



Picture: Activities on the themed party class and anti-corruption education report



**Case: The Exploration & Surveying Institute held the 2023 work conference on comprehensive and strict party governance (party building) and education**

In May 2023, the Exploration & Surveying Institute held the 2023 Work Conference on Comprehensive and Strict Party Governance (Party Building) and Education. The Secretary of Committee for Disciplinary Inspection said that enterprise development shall firmly advocate the “Two Establishes”, identify the entry point of political supervision, establish and improve the supervision system, promote the normalization of daily supervision, and examine whether there was any sign of “extravagance, hedonism, bureaucratism, and formalism”, in order to promote the long-term effectiveness of work practices. At the same time, it is necessary to comprehensively strengthen the discipline construction, maintain the efforts in anti-corruption, and continue to promote quality construction, so as to build a comprehensive and tough disciplinary and supervisory team.



Picture: The Exploration & Surveying Institute held the 2023 work conference on comprehensive and strict party governance (party building) and education



# ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION, HARMONIOUS DEVELOPMENT

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

UCD actively responds to the national goals of “carbon neutrality” and “carbon peaking”, pays attention to climate change, and practices the concept of green development. We are committed to constructing a sound environmental management system, promoting green office practices, as well as vigorously promoting green construction and protecting biodiversity to achieve harmonious intergrowth between people and nature.

## Environmental Protection Goals

The Group attaches great importance to carbon emissions during its business operations and endeavors to minimize negative impacts on the environment. Through formulating and implementing environmental protection goals and control procedures, the Group conducts recycling for office trash and hazardous waste, and carries out environmental monitoring and control at construction sites to reduce the emissions of air pollutants and greenhouse gases, and prevent major environmental pollution accidents. In addition, the Group disposes of construction waste in accordance with the principles of recycling, harmlessness and reduction, in order to ensure the effective implementation and continuous improvement of our corporate environmental protection responsibilities.

UCD 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》 and the *Regulations on Environmental Protection Management of Construction Project* 《建設項目環境保護管理條例》, and carries through on the requirements of the international standard *ISO 14064:2012 Greenhouse Gas Emissions and Inventories* to identify and control environmental factors, and arrange systematic training for personnel related to environmental management, so as to ensure that the impacts of our business activities on the environment are effectively managed and to promote the effective implementation and continuous improvement of our corporate environmental protection responsibilities. In order to proactively address the possible impacts of our operations on the natural environment, the Group is committed to promoting environmental protection measures and has set clear environmental protection goals. Currently, we are focusing on our office premises and construction sites to further minimize the negative impact on the environment. In 2023, the Group carried out 87 inspections on environmental management system and implemented 103 rectification items, and has reached a 100% rectification rate and achieved the Group’s environmental protection goals for the year.

## ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION, HARMONIOUS DEVELOPMENT (Continued)

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

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

Ensure that the sewage, dust and solid waste discharged meet the standards, and prevent major environmental pollution accidents at construction sites; handle the waste according to the principles of recycling, harmlessness and reduction, lowering energy consumption to reduce waste of resources.

The Group's environmental protection goals for the year

**During the Reporting Period, the Group has strictly complied with the following laws and regulations related to exhaust gas, greenhouse gases, discharge of pollution to water and land, and generation of hazardous and non-hazardous waste:**

*Law of the People's Republic of China on Prevention and Control of Air Pollution*  
《中華人民共和國大氣污染防治法》

*Environmental Protection Law of the People's Republic of China*  
《中華人民共和國環境保護法》

*Energy Conservation Law of the People's Republic of China*  
《中華人民共和國節約能源法》

*Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste*  
《中華人民共和國固體廢物污染環境防治法》

*Law of the People's Republic of China on the Prevention and Control of Water Pollution*  
《中華人民共和國水污染防治法》

*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》

*Regulations on Environmental Protection Management of Construction Project*  
《建設項目環境保護管理條例》

## Climate Change

UCD actively responds to climate change. With reference to the information disclosure framework prepared by Task Force on Climate-Related Financial Disclosure (TCFD), UCD regularly identifies and analyzes climate risks and opportunities in the whole operation process, strengthens the management of energy and resources, and formulates targeted mitigation actions and plans, in a bid to improve its ability to cope with the risks of extreme weather and climate events, thereby striving to realize the green operation in the whole lifecycle to build a green, environmental-friendly and sustainable living environment.

## ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION, HARMONIOUS DEVELOPMENT (Continued)

Table: UCD's Identification of and Response to the Risks of Climate Change

Risks of climate change	Potential impact	Countermeasures
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. In 2022, the Group formulated the <i>2022 Flood Prevention Work Plan</i> 《2022年防汛工作方案》 to achieve "one plan for one project" to eliminate potential risks of flood hazards in a timely manner and improve the flood prevention capability of the Group's various projects;</li> </ul>
Physical risks		
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> <li>Production units carry out random safety checks or cooperate with safety checks carried out by higher authorities according to the progress of work or seasonal weather conditions.</li> </ul>

## ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION, HARMONIOUS DEVELOPMENT (Continued)



Risks of climate change	Potential impact	Countermeasures
<p>Transition risks</p> <p>Policy risks</p>	<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 policies such as the <i>Guiding Opinions on Coordinating and Strengthening the Work Related to Addressing Climate Change and Ecological Environmental Protection</i> 《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 <i>Action Plan for Carbon Peaking Before 2030</i> 《2030年前碳達峰行動方案》, the <i>Guiding Opinion on Accelerating the Establishment and Improvement of Green, Low-Carbon and Circular Economic Development System</i> 《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 <i>Administrative Measures for the Trading of Carbon Emission Right (Trial)</i> 《碳排放權交易管理辦法(試行)》. In 2022, the government also issued the <i>National Climate Change Adaptation Strategy 2035</i> 《國家適應氣候變化戰略 2035》 and the <i>Implementation Plan for Carbon Peaking in the Industrial Sector</i> 《工業領域碳達峰實施方案》, the <i>Implementation Plan for Synergistic Effect of Pollution and Carbon Reduction</i> 《減污降碳協同增效實施方案》. In 2023, the government released the <i>Report of the Year 2023 in Responding to Climate Change: China's Policies and Actions</i> 《中國應對氣候變化的政策與行動 2023 年度報告》 and the <i>Administrative Measures for Voluntary Emission Reduction Trading of Greenhouse Gases (Trial)</i> 《溫室氣體自願減排交易管理辦法(試行)》. With the successive implementation of these systems and management requirements, the Group will face higher policy compliance risks and practice costs.</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>
<p>Opportunities</p> <p>Opportunities arising from climate change</p>	<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>

## Green Office

Fully adhering to the concept of “green office, energy conservation, and consumption reduction”, UCD has incorporated resource conservation and environmental awareness into workplace management and construction, driven by standardized, intelligent, and efficient office models to establish a sustainable green office environment. In 2023, the electricity consumption in the Group’s headquarters office area decreased by 7.3% as compared to the previous year, resulting in significant effects of energy savings and emission reductions.

**Table: The Group’s Green Office Policies**

The Institute	<i>Environmental Management Plan</i> 《環境管理方案》
	<i>Measures for Management of Energy and Resource Conservation of the Headquarters</i> 《公司能源資源節約管理辦法》
	<i>Measures for Management of Energy and Resource Conservation of Branches</i> 《分院能源資源節約管理辦法》
	<i>Waste Sorting Instruction Manual</i> 《垃圾分類工作指導手冊》
Exploration & Surveying Institute	<i>Internal and External Environment Control Procedures</i> 《內外部環境控制程序》
	<i>Green Office Management System</i> 《綠色辦公室管理制度》
	<i>Office Environment, Occupational Health and Safety Operation Control Procedures</i> 《辦公區域環境、職業健康安全運行控制程序》
	<i>“Green Office” Proposal of Exploration &amp; Surveying Institute</i> 《勘測院“綠色辦公”倡議書》
Rail Company	<i>Measures for Energy Conservation and Emission Reduction in Offices of Beijing Urban Rail Transit Construction Engineering Co., Ltd.</i> 《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》



Table: Highlights of Green Office Initiatives

Save electricity	<ul style="list-style-type: none"> <li>• Use natural lighting in priority in corridors in office buildings to reduce the office electric lighting state; switch off lighting and equipment during non-working hours;</li> <li>• Promote energy conservation and guide employees to turn off lights when not in use;</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;</li> <li>• Save electricity consumed by air conditioners, and make full use of natural ventilation; strictly implement the setting standards for indoor air-conditioning temperature to be higher than 26°C.</li> </ul>
Improve water efficiency	<ul style="list-style-type: none"> <li>• Strengthen the management of the water pipe network and water supply equipment, regularly inspect, examine and replace the aging water supply pipelines and equipment, and prevent water waste;</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>• Classify, recycle, label and process non-hazardous and hazardous waste, and sign transportation agreements with professional third parties. In 2023, the Group conducted special inspections on waste sorting in the office areas of each subsidiary, achieving a rectification rate of 100%;</li> <li>• Carry out the waste sorting themed promotional event. In 2023, a total of over 200 employees participated in the activities, striving to be “practitioners, advocates, and promoters” of waste sorting;</li> <li>• Require toner cartridges and ink cartridges trade-in collection to ensure 100% recovery rate.</li> </ul>

Table: Highlights of Green Office Initiatives

Optimize resource utilization

- Advocate for paperless offices in both the office and field measurement, make full use of an online office platform to publish information and transmit data, or reduce the copy paper by circulating documents;
- 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 in our office to encourage employees to recycle office paper;
- Promote the use of recycled paper, pens with replaceable cores, toner cartridges, rechargeable batteries and other recyclable items;
- Conduct a thorough assessment of energy consumption and equipment across various categories, such as water, electricity, natural gas, gasoline, and heat. Develop and implement energy-saving management measures, maintain detailed records of energy-consuming equipment, measuring instruments, and energy consumption, monitor energy consumption on a quarterly basis, analyze differences, and strive for continuous improvement.

Green travel

- Continuously improve the driving skills of drivers, strengthen vehicle maintenance, and reduce abnormal wear and tear of vehicle parts;
- Installation of charging stations for new energy vehicle and electric bicycle in office areas to encourage low-carbon travel among staffs;
- Advocate for walking or biking for transportation;
- Make use of electronic means, such as the Internet, telephone, video conference, etc., to reduce unnecessary travel;
- Arrange suitable vehicles for group business activities to reduce air pollution.



Picture: “Waste Sorting” themed promotional event

## Green Construction

The Group abides by the *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 established and implemented policies such as the Green Construction Management Plan, which outlines requirements for resource conservation and environmentally friendly green construction management. In 2023, there were no events that had a material or above environmental impact on the Group.

**Table: The Group's Policies for Green Construction**

The Institute	<i>Environmental Protection Inspection System</i> (《環境保護檢查制度》)
	<i>Waste Oil Treatment Solution</i> (《廢油處理方案》)
	<i>Special Emergency Response Plan for Waste Oil Pollution Incidents</i> (《廢油污染事故專項應急預案》)
Exploration & Surveying Institute	<i>Control Procedures for the Identification and Evaluation of Environmental Factors and Hazardous Sources</i> (《環境因素和危險源辨識與評價控制程序》)
	<i>Construction Site Environment and Occupational Health Operational Control Procedures</i> (《施工現場環境和職業健康運行控制程序》)
	<i>Solid Waste Management System (Provisional)</i> (《固體廢棄物管理工作制度(暫行)》)
Rail Company	<i>Green Construction Management Plan</i> (《綠色施工管理方案》)
	<i>Green Construction Management Plan of Beijing Urban Rail Transit Construction Engineering Co., Ltd.</i> (《北京城建軌道交通建設工程有限公司綠色施工管理方案》)
	<i>Construction Site Environmental Protection Plan of Beijing Urban Rail Transit Construction Engineering Co., Ltd.</i> (《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》)

During the construction process, the Group took into full consideration the impact on the surrounding environment of the construction site and the local community by carrying out comprehensive management of noise, air pollutants, waste water and waste. The Group also carried out environmental impact assessment and biodiversity assessment and continuously strengthened the management and supervision of the entire construction process to minimise any potential negative impact of the construction on the ecological environment. In order to ensure the continuous improvement of environmental protection level during the construction process, the Group made detailed inspection and improvement plans for the operating environment of the process and set up a special monitoring mechanism and a green construction leading group to conduct regular assessment and supervision of the implementation. In 2023, the Group did not have any incident of notification or punishment caused by green construction management issues, and the green construction rate was 100%.

**Table: 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 fugitive dust;</li> <li>• Store powdery materials in closed containers and covered piled materials that are prone to dust;</li> <li>• Require to use of 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 inspections on construction machinery and vehicles to ensure that their exhaust emissions meet environmental protection requirements;</li> <li>• Promote the application of air energy, and use thermal energy in the air as an energy source to reduce emissions from energy consumption;</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 conforms to the water quality requirements are 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>
Hazardous construction waste control	<ul style="list-style-type: none"> <li>• Improve the construction quality and reduce the production of wastes by accurately placing materials on the construction site 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>

**Table: Management Measures for Construction Environment**

Non-hazardous construction 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>• Promote integrated box houses instead of traditional temporary housing and use steel boxes instead of concrete pavements;</li> <li>• Develop a construction waste reduction plan to “leave the site clean after work”;</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 <i>Original Record of Noise Measurement at Construction Site Boundary</i> 《施工場界噪聲測定原始記錄》 and the <i>Report on the Noise Measurement at Construction Site</i> 《施工現場噪聲測定報告》;</li> <li>• Use low-noise and low-vibration devices and take sound and vibration isolation measures (e.g., soundproof enclosure) to mitigate construction noise;</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>

In order to conserve and utilize resources and energy as much as possible, the Group has made comprehensive and systematic planning on reducing the energy consumption of equipment manufacturing and has formulated detailed “Energy Conservation and Emissions Reduction Measures for Equipment Manufacturing”, aiming to encourage and guide operators to actively fulfil specific requirements for energy conservation and emissions reduction in daily work, thereby realizing the efficient use of energy and environmental protection in the process of equipment manufacturing.

**Table: Energy conservation measures for equipment**

<ul style="list-style-type: none"> <li>• Conduct an overall evaluation of currently-used or proposed machinery, select new and advanced equipment that is energy-saving and environmentally-friendly, and phase out or restrict old machinery and equipment that are in poor condition and have high energy consumption;</li> <li>• Conduct routine maintenance on machinery to ensure equipment remains in good technical condition, reducing occurrences of leaks and drips, and eliminating the operation of machines with undiagnosed issues. This approach helps to lower energy consumption.</li> <li>• Promote the application of new electricity-saving products such as frequency converters and soft starters;</li> <li>• Popularize the use of more efficient and energy-saving transformers and motors of new types to achieve good energy-saving effects;</li> <li>• Select energy-saving lamps that meet the standards for use in specific operational environments to reduce electricity consumption for lighting.</li> </ul>
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## ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION, HARMONIOUS DEVELOPMENT (Continued)



### Case: Bishan-tongliang line of Chongqing suburban railway won provincial and ministerial awards for “Smart Site” and “Dust Control Demonstration Site”

The Bishan-Tongliang Line of Chongqing Suburban Railway, designed and built by UCD, strictly followed the concept of green construction during the construction process, and was awarded the “Building Construction and Municipal Facilities Two-star Smart Site of Chongqing” and “Building Construction and Municipal Facilities Three-star Smart Site of Chongqing” for its excellent environmental protection practices and significant energy saving and emission reduction results. In addition, the construction project has also demonstrated dust control at an extremely professional level, ensuring the cleanliness and tidiness of the construction site through scientific planning and effective management measures, which has effectively reduced the impact of dust on the environment, and won the “Construction Dust Control Demonstration Site of Chongqing for the Year 2023”.



Pictures: Award certificates of Building Construction and Municipal Facilities Two-star Smart Site of Chongqing and Building Construction and Municipal Facilities Three-star Smart Site of Chongqing



## Environmental Education

It is the firm belief of UCD to adhere to the concept of green development, and to regard ecological environment publicity and education as important measures to raise employees' environmental awareness and promote green construction. UCD integrates the concepts of conservation, environmental protection and low carbon into its daily operations, and actively advocates environmentally-friendly construction to ensure that construction activities have minimal impact on the environment. The Group has formulated the comprehensive *Management Measures for Energy and Resource Conservation in the Headquarters* 《總部能源資源節減管理辦法》 and has conducted education on environmental protection and energy conservation through various forms and channels, such as skill training, skill competitions, and site visits, with the aim of enabling employees to have a better understanding of the importance of green development and putting it into practice in construction. Meanwhile, the Group regularly conducts activities in relation to the publicity, learning, and implementation of green construction for to ensure that employees can minimize the negative impact of construction activities on the environment through their application of scientific management and green energy-saving technologies during the construction process.

## Environmental Performance

In 2023, we collected environmental data of the headquarters of UCD and its 35 branches, the headquarters of Rail Company and its 11 projects, and the headquarters of Exploration & Surveying Institute and its 10 branches as well as 1 project in Residential Institute during the Reporting Period. The Group will continue to push forward and improve the recording and management of environmental data in the future.

## ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION, HARMONIOUS DEVELOPMENT (Continued)

Table: Total Air Pollutant Emission<sup>1</sup>

Indicator	Unit	2023	2022	2021
NO <sub>x</sub>	kg	17,217.61	39,575.76	16,999.75
SO <sub>x</sub>	kg	53.83	107.81	33.05
CO	kg	10,386.39	4,656.83	9,046.10
PM <sub>10</sub>	kg	190.23	190.65	537.52

Table: Resource Consumption and Intensity

Indicator	Unit	2023	2022	2021
Total Energy Consumption <sup>2</sup>	MWh	49,415.27	33,532.90	24,343.91
Total Energy Consumption Intensity	MWh/person	11.94	9.22	6.93
Total Electricity Consumption	10,000 kWh	3,333.29	2,834.40	1,969.57
Total Electricity Consumption Intensity	kWh/person	8,057.26	7,793.25	5,609.71
Total Natural Gas Consumption	10,000 m <sup>3</sup>	15.62	55.01	16.86
Total Natural Gas Consumption Intensity	m <sup>3</sup> /person	37.74	151.24	48.02
Total Liquefied Petroleum Gas Consumption	10,000m <sup>3</sup> – gas	2.32	3.09	3.65
Total Liquefied Petroleum Gas Consumption Intensity	m <sup>3</sup> – gas/person	5.61	8.50	10.39
Diesel Consumption	liter	455,989.04	130,889.00	379,878.90
Diesel Consumption Intensity	liter/person	110.22	35.99	108.20
Gasoline Consumption	liter	1,079,915.38	1,139,260.07	1,094,342.04
Gasoline Consumption Intensity	liter/person	261.04	313.24	311.69
Office Paper Consumption	tonne	144.13	129.68	100.93
Office Paper Consumption Intensity	kg/person	34.82	35.66	28.75
Total Water Consumption	10,000 tonne	67.14	52.17	42.53
Total Water Consumption Intensity	tonne/person	162.21	143.43	121.13

<sup>1</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 Nonroad Mobile Sources (Trial)* 《非道路移動源大氣污染物排放列表編制技術指南(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>2</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)* 《車用汽油》(GB 17930-2016) and *Diesel Oil for Motor Vehicles (GB 19147-2016)* 《車用柴油》(GB 19147-2016) issued by General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China and Standardization Administration of China.

## ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION, HARMONIOUS DEVELOPMENT (Continued)

Table: Greenhouse Gas Emissions and Intensity<sup>3</sup>

Indicator	Unit	2023	2022	2021
GHG Emissions of Scope 1	tonnes of CO <sub>2</sub> equivalents	4,735.90	4,296.85	4,072.64
GHG Emissions of Scope 2	tonnes of CO <sub>2</sub> equivalents	19,009.74	16,456.27	14,053.84
Total Greenhouse Gas Emissions	tonnes of CO <sub>2</sub> equivalents	23,745.64	20,753.12	18,126.49
Total Greenhouse Gas Emissions Intensity	tonnes of CO <sub>2</sub> equivalents/person	5.74	5.71	5.16

Table: Total Waste Produced and Intensity

Indicator	Unit	2023	2022	2021
<b>Total Hazardous Waste Produced and Intensity</b>				
Total Waste Batteries Produced	kg	535.11	491.97	242.88
Total Waste Batteries Produced Intensity	kg/person	0.13	0.14	0.07
Waste Fluorescent Lights	piece	4,730 <sup>4</sup>	1,518	1,161
Waste Fluorescent Lights Intensity	piece/person	1.14	0.42	0.33
Total Waste Printer Cartridges Produced	piece	4,700 <sup>5</sup>	2,682	2,128
Total Waste Printer Cartridges Produced Intensity	piece/person	1.14	0.74	0.61
Total Waste Chemicals Produced	kg	1.5	9.40	12.10
Total Waste Chemicals Produced Intensity	kg/person	0.0004	0.003	0.003

<sup>3</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 *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 the People's Republic of China.

<sup>4</sup> In 2023, the Rail Company witnessed a substantial expansion in its corporate scale, leading to an increase in office personnel. Consequently, there was a notable growth in the quantity of Waste Fluorescent Lights compared to the year 2022.

<sup>5</sup> In 2023, the Rail Company witnessed a substantial expansion in its corporate scale, leading to an increase in office personnel. Consequently, there was a notable growth in the quantity of Total Waste Printer Cartridges Produced compared to the year 2022.

## ENERGY CONSERVATION AND ENVIRONMENTAL PROTECTION, HARMONIOUS DEVELOPMENT (Continued)

Indicator	Unit	2023	2022	2021
<b>Total Non-hazardous Waste Produced and Intensity</b>				
Office Garbage Produced	tonne	1,143.15	814.04	700.74
Office Garbage Recycled	tonne	1,002.85	709.80	620.61
Household Garbage Produced	tonne	2,388.60	1,165.46	595.56
Household Garbage Recycled	tonne	1,771.52	747.97	319.38
Construction Waste Produced	tonne	534,003.91 <sup>6</sup>	7,163.23	2,678.62
Construction Waste Recycled	tonne	248,351.8	2,918.66	871.23
Experiment Waste Residue Produced	tonne	140.20	100.45	71.90
Experiment Waste Residue Recycled	tonne	31.36	39.57	70.40
Total Non-hazardous Waste Produced	tonne	537,675.86	9,243.18	4,046.82
Intensity	tonne/person	129.97	2.54	1.15

<sup>6</sup> The construction efficiency and progress of "Expansion and capacity enhancement of Line 13 in Beijing, Project 02", experienced a substantial improvement throughout the entire year of 2023. As a result, there was a notable increase in the Construction Waste Produced for the year.



# GIVING BACK TO THE COMMUNITY THROUGH CHARITABLE UNDERTAKINGS

The section mainly replies to the following major ESG issues:

Contributions to the development of the community

Maintenance of community relationships

The dripping water becomes the ocean, and the hearts of love become hope. We recognize that every tiny act of kindness can burst out great energy through convergence. The Group promotes volunteerism through our passion for public service and creates a corporate culture of social harmony in its daily operations. In 2023, the Group invested a total of RMB100,000 in public welfare projects and 1,605 hours in volunteer activities.

## Rural Revitalization

UCD is fully aware that the comprehensive promotion of rural revitalization is a major strategic deployment of the Party Central Committee, and the Group is tasked with the important mission to serve rural revitalization. In order to give full play to the role of state-owned enterprises as the main forces of rural revitalization, we have made new contributions to facilitate rural revitalization, demonstrating the commitment of a state-owned enterprise. In 2023, we invested a total of RMB1,670,000 in consumption-driven assistance, and assisted less-capable villages in the collective economy to increase their income by RMB140,000. Exploration & Surveying Institute purchased nearly RMB400,000 of agricultural products for its canteens and trade union benefits throughout the year.

## GIVING BACK TO THE COMMUNITY THROUGH CHARITABLE UNDERTAKINGS (Continued)



### Case: Visiting the villagers and sending warmth to them

In 2023, the Group sent delegates to Chenggezhuang Village where they visited and consoled 10 households in difficulties and some frail and sick elderly people, offering them rice, eggs, flour and other daily necessities, which helped the villagers to solve practical difficulties, narrowing the distance between the Company and the villages, and contributing to rural revitalization in a sustainable way.



Picture: Visiting Chenggezhuang village

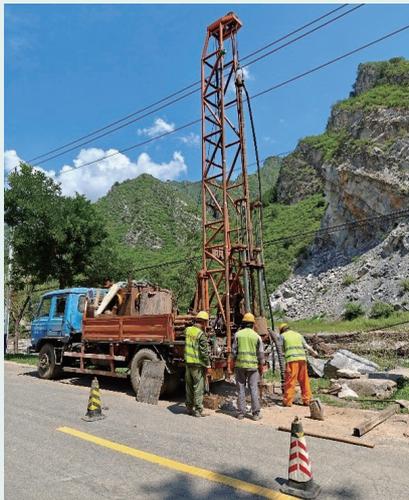
## Provide Disaster Relief and Help the Needy

The Group is committed to the development of social welfare, and actively contributes to the society, dedicating love with practical actions to promote the sustainable development of the society. In 2023, the Group actively launched and publicized social welfare activities. Specifically, the Group donated RMB100,000 to the Lhasa Beijing Experimental High School through the Lhasa Charity Federation, launched the “Love Delivery and Reading Together (微愛傳遞 共沐書香)” activity, and called on party members and the public to participate in the “Love and Care by Communist Party Members (共產黨員獻愛心)” activity, etc., to carry forward the advanced spirit of “Leading by Example in Giving Love and Doing Practical Things to Solve People’s Problems”.



**Case: Post-disaster reconstruction and fighting in the frontline of emergency rescue**

In July 2023, Fangshan, Mentougou, Huairou and other places in Beijing were hit by unusually heavy rainstorms, which triggered geological disasters such as flash floods and mudslides, and caused serious damages to roads, bridges and other infrastructures. In August, the Exploration & Surveying Institute started the rescue work and provided technical support, scrambled to do on-site inspection, made management solutions through comprehensive study and judgment, and carried out high-efficiency and high-quality surveying and mapping work. Moreover, 20 professional and technical personnel, 6 drilling rigs, 6 GPS equipment, 8 protection vehicles were in place to assist in the post-disaster reconstruction and to ensure the safety of people's lives and property.



Picture: The volunteer services team from the Exploration & Surveying Institute

# ANNEX: THE ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORTING GUIDE

Subject Areas	Aspects	Key Performance Indicators (KPIs)	Where the disclosure can be found
<b>Environment</b>			
A1 Emissions	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 air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	Energy Conservation and Environmental Protection, Harmonious Development
	Others		
	A1.1	The types of emissions and respective emissions data.	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).	Environmental Performance
	A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Environmental Performance
	A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Environmental Performance
	A1.5	Description of emissions target(s) set and steps taken to achieve them.	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.	Green Office Green Construction
Others			

## ANNEX: THE ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORTING GUIDE (Continued)

Subject Areas	Aspects	Key Performance Indicators (KPIs)	Where the disclosure can be found
A2 Use of Resources	General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	Energy Conservation and Environmental Protection, Harmonious Development
	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).	Environmental Performance
	A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	Environmental Performance
	A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	Green Office Green Construction
	A2.4	Description of energy use efficiency target(s) set and steps taken to achieve them.	Green Office Green Construction
	A2.5	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.	N/A (the Group's businesses do not involve the production of any products).
	Others		
A3 The Environment and Natural Resources	General Disclosure	Policies on minimising the issuer's significant impacts on the environment and natural resources.	Energy Conservation and Environmental Protection, Harmonious Development
	A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Energy Conservation and Environmental Protection, Harmonious Development
	Others		
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.	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.	Climate Change

## ANNEX: THE ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORTING GUIDE (Continued)

Subject Areas	Aspects	Key Performance Indicators (KPIs)	Where the disclosure can be found
<b>Community</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.	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.	Talent Management
	B1.2	Employee turnover rate by gender, age group and geographical region.	Talent Management
	Others		
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.	Work Safety
	B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	Work Safety
	B2.2	Lost days due to work injury.	Work Safety
	B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	Work Safety
Others			
B3 Development and Training	General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	Craftsmanship
	B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	Craftsmanship
	B3.2	The average training hours completed per employee by gender and employee category.	Craftsmanship
Others			

## ANNEX: THE ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORTING GUIDE (Continued)

Subject Areas	Aspects	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.	Talent Management
	B4.1	Description of measures to review employment practices to avoid child and forced labour.	Talent Management
	B4.2	Description of steps taken to eliminate such practices when discovered.	Talent Management
	Others		
B5 Supply Chain Management	General Disclosure	Policies on managing environmental and social risks of the supply chain.	Supplier Management
	B5.1	Number of suppliers by geographical region.	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.	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.	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.	Supplier Management
	Others		

## ANNEX: THE ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORTING GUIDE (Continued)

Subject Areas	Aspects	Key Performance Indicators (KPIs)	Where the disclosure can be found
	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.	As the Group's businesses do not involve the production of any products, matters related to product labelling do not apply to the Group. Other matters related to product responsibility have been disclosed by the Group in Service Quality.
B6 Product Responsibility	B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Service Quality
	B6.2	Number of products and service related complaints received and how they are dealt with.	Service Quality
	B6.3	Description of practices relating to observing and protecting intellectual property rights.	Encourage Innovation
	B6.4	Description of quality assurance process and recall procedures.	Service Quality
	B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	Service Quality
	Others		
	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.	Anti-corruption
B7 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.	Anti-corruption
	B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	Anti-corruption
	B7.3	Description of anti-corruption training provided to directors and staff.	Anti-corruption
	Others		

## ANNEX: THE ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORTING GUIDE (Continued)

Subject Areas	Aspects	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.	Giving Back to the Community through Charitable Undertakings
	B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	Giving Back to the Community through Charitable Undertakings
	B8.2	Resources contributed (e.g. money or time) to the focus area.	Giving Back to the Community through Charitable Undertakings
	Others		



**北京城建设计发展集团股份有限公司**

BEIJING URBAN CONSTRUCTION DESIGN & DEVELOPMENT GROUP CO., LIMITED