SUSTAINABILITY ACCOUNTING STANDARD
INFRASTRUCTURE SECTOR

ENGINEERING & CONSTRUCTION SERVICES

Sustainability Accounting Standard

Sustainable Industry Classification System™ (SICS™) #IF0301

Prepared by the
Sustainability Accounting Standards Board®

March 2016
Provisional Standard

ENGINEERING & CONSTRUCTION SERVICES

Sustainability Accounting Standard

About SASB

The Sustainability Accounting Standards Board (SASB) provides sustainability accounting standards for use by publicly-listed corporations in the U.S. in disclosing material sustainability information for the benefit of investors and the public. SASB standards are designed for disclosure in mandatory filings to the Securities and Exchange Commission (SEC), such as the Form 10-K and 20-F. SASB is an independent 501(c)3 non-profit organization. Through 2016, SASB is developing standards for 79 industries in 10 sectors.

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Table of Contents

INTRODUCTION

Purpose & Structure

This document contains the SASB Sustainability Accounting Standard (SASB Standard) for the Engineering & Construction Services industry.

SASB Sustainability Accounting Standards are comprised of **(1) disclosure guidance and (2) accounting standards on sustainability topics** for use by U.S. and foreign public companies in their annual filings (Form 10-K or 20-F) with the U.S. Securities and Exchange Commission (SEC). To the extent relevant, SASB Standards may also be applicable to other periodic mandatory filings with the SEC, such as the Form 10-Q, Form S-1, and Form 8-K.

SASB Standards identify sustainability topics at an industry level, which may constitute material information—depending on a company's specific operating context—for a company within that industry. SASB Standards are intended to provide guidance to company management, which is ultimately responsible for determining which information is material and should therefore be included in its Form 10-K or 20-F and other periodic SEC filings.

SASB Standards provide companies with standardized sustainability metrics designed to communicate performance on industry level sustainability topics. When making disclosure on sustainability topics, companies can use SASB Standards to help ensure that disclosure is standardized and therefore decision-useful, relevant, comparable, and complete.

SASB Standards are intended to constitute "suitable criteria" as defined by AT 101.23 -. 32[1] and referenced in AT 701[2], as having the following attributes:

- *Objectivity*—Criteria should be free from bias.
- *Measurability*—Criteria should permit reasonably consistent measurements, qualitative or quantitative, of subject matter.
- *Completeness*—Criteria should be sufficiently complete so that those relevant factors that would alter a conclusion about subject matter are not omitted.
- *Relevance*—Criteria should be relevant to the subject matter.

Industry Description

The Engineering & Construction Services industry provides design, consulting, contracting, construction, engineering, and other related services that support various building and infrastructure projects. The industry is made up of four major segments: Infrastructure Construction, Non-Residential Building Construction, Engineering Services, and Building Sub-contractors and Construction-related Professional Services. The Infrastructure Construction segment includes companies that design and/or build infrastructure projects such as power plants, dams, oil and gas pipelines, refineries, highways, bridges, tunnels, railways, ports, airports, waste treatment plants, water networks, and stadiums. The Non-Residential Building Construction segment includes companies that design

[1] http://pcaobus.org/Standards/Attestation/Pages/AT101.aspx#at_101_fn7
[2] http://pcaobus.org/Standards/Attestation/Pages/AT701.aspx

and/or build industrial and commercial facilities such as factories, warehouses, data centers, offices, hotels, hospitals, universities, and retail spaces like malls. The Engineering Services segment includes companies that provide specialized architectural and engineering services such as design and development of feasibility studies for many of the project types listed above. Finally, the Building Sub-contractors and other Construction-related Professional Services segment includes smaller companies that provide ancillary services such as carpentry, electrical, plumbing, painting, waterproofing, landscaping, interior design, and building inspection. The industry's customers include infrastructure owners and developers in the public and private sectors. Large companies in this industry operate and generate revenue globally and typically specialize in multiple segments.

Guidance for Disclosure of Sustainability Topics in SEC Filings

1. Industry-Level Sustainability Topics

For the Engineering & Construction Services industry, SASB has identified the following sustainability disclosure topics:

- Environmental Impacts of Project Development
- Structural Integrity & Safety
- Workforce Health & Safety
- Climate Impacts of Business Mix
- Lifecycle Impacts of Buildings & Infrastructure
- Business Ethics & Bidding Integrity

2. Company-Level Determination and Disclosure of Material Sustainability Topics

Sustainability disclosures are governed by the same laws and regulations that govern disclosures by securities issuers generally. According to the U.S. Supreme Court, a fact is material if, in the event such fact is omitted from a particular disclosure, there is "a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of the information made available."[3,4]

SASB has attempted to identify those sustainability topics that are reasonably likely to have a material effect on the financial condition or operating performance of companies within each SICS industry. SASB recognizes, however, that each company is ultimately responsible for determining what information should be disclosed within the context of Regulation S-K and other guidance.

Regulation S-K, which sets forth certain disclosure requirements associated with Form 10-K and other SEC filings, requires companies, among other things, to describe in the Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) section of Form 10-K "any known trends or uncertainties that have had or that the registrant reasonably expects will have a material favorable or unfavorable impact on net sales or revenues or income from continuing operations. If the registrant knows of events that will cause a material change

[3] TSC Industries v. Northway, Inc., 426 U.S. 438 (1976).
[4] C.F.R. 229.303(Item 303)(a)(3)(ii).

in the relationship between costs and revenues (such as known future increases in costs of labor or materials or price increases or inventory adjustments), the change in the relationship shall be disclosed."

Furthermore, Instructions to Item 303 state that the MD&A "shall focus specifically on material events and uncertainties known to management that would cause reported financial information not to be necessarily indicative of future operating results or of future financial condition."[2]

The SEC has provided guidance for companies to use in determining whether a trend or uncertainty should be disclosed. The two-part assessment prescribed by the SEC, based on probability and magnitude, can be applied to the topics included within this standard:

- First, a company is not required to make disclosure about a known trend or uncertainty if its management determines that such trend or uncertainty is not reasonably likely to occur.

- Second, if a company's management cannot make a reasonable determination of the likelihood of an event or uncertainty, then disclosure is required unless management determines that a material effect on the registrant's financial condition or results of operation is not reasonably likely to occur.

3. Sustainability Accounting Standard Disclosures in Form 10-K

a. Management's Discussion and Analysis

For purposes of comparability and usability, companies should consider making disclosure on sustainability topics in the MD&A, in a sub-section titled "**Sustainability Accounting Standards Disclosures**."[5]

b. Other Relevant Sections of Form 10-K

In addition to the MD&A section, it may be relevant for companies to disclose sustainability information in other sections of Form 10-K, including, but not limited to:

- **Description of business**—Item 101 of Regulation S-K requires a company to provide a description of its business and its subsidiaries. Item 101(c)(1)(xii) expressly requires disclosure regarding certain costs of complying with environmental laws:

Appropriate disclosure also shall be made as to the material effects that compliance with Federal, State and local provisions which have been enacted or adopted regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment, may have upon the capital expenditures, earnings and competitive position of the registrant and its subsidiaries.

- **Legal proceedings**—Item 103 of Regulation S-K requires companies to describe briefly any material pending or contemplated legal proceedings. Instructions to Item 103 provide specific disclosure requirements for administrative or judicial proceedings arising from laws and regulations that target

[5] SEC [Release Nos. 33-8056; 34-45321; FR-61] Commission Statement about Management's Discussion and Analysis of Financial Condition and Results of Operations: "We also want to remind registrants that disclosure must be both useful and understandable. That is, management should provide the most relevant information and provide it using language and formats that investors can be expected to understand. Registrants should be aware also that investors will often find information relating to a particular matter more meaningful if it is disclosed in a single location, rather than presented in a fragmented manner throughout the filing."

discharge of materials into the environment or that are primarily for the purpose of protecting the environment.

- **Risk factors**—Item 503(c) of Regulation S-K requires filing companies to provide a discussion of the most significant factors that make an investment in the registrant speculative or risky, clearly stating the risk and specifying how a particular risk affects the particular filing company.

c. Rule 12b-20

Securities Act Rule 408 and Exchange Act Rule 12b-20 require a registrant to disclose, in addition to the information expressly required by law or regulation, "such further material information, if any, as may be necessary to make the required statements, in light of the circumstances under which they are made, not misleading."

More detailed guidance on disclosure of material sustainability topics can be found in the **SASB Conceptual Framework**, available for download via http://www.sasb.org/approach/conceptual-framework/.

Guidance on Accounting for Sustainability Topics

For each sustainability topic included in the Engineering & Construction Services industry Sustainability Accounting Standard, SASB identifies accounting metrics.

SASB recommends that each company consider using these sustainability accounting metrics when preparing disclosures on the sustainability topics identified herein;

As appropriate—and consistent with Rule 12b-20[6]—when disclosing a sustainability topic identified by this Standard, companies should consider including a narrative description of any material factors necessary to ensure completeness, accuracy, and comparability of the data reported. Where not addressed by the specific accounting metrics, but relevant, the registrant should discuss the following, related to the topic:

- The registrant's **strategic approach** to managing performance on material sustainability issues;
- The registrant's **relative performance** with respect to its peers;
- The **degree of control** the registrant has;
- Any **measures the registrant has undertaken** or **plans to undertake** to improve performance; and
- Data for the registrant's **last three completed fiscal years** (when available).

SASB recommends that registrants use SASB Standards specific to their primary industry as identified in the Sustainable Industry Classification System (SICS™). If a registrant generates significant revenue from multiple

[6] SEC Rule 12b-20: "In addition to the information expressly required to be included in a statement or report, there shall be added such further material information, if any, as may be necessary to make the required statements, in the light of the circumstances under which they are made, not misleading."

industries, SASB recommends that it also consider sustainability topics that SASB has identified for those industries and disclose the associated SASB accounting metrics.

In disclosing to SASB Standards, it is expected that registrants disclose with the same level of rigor, accuracy, and responsibility as they apply to all other information contained in their SEC filings.

Users of the SASB Standards

The SASB Standards are intended to provide guidance for companies that engage in public offerings of securities registered under the Securities Act of 1933 (the Securities Act) and those that issue securities registered under the Securities Exchange Act of 1934 (the Exchange Act),[7] for use in SEC filings, including, without limitation, annual reports on Form 10-K (Form 20-F for foreign issuers), quarterly reports on Form 10-Q, current reports on Form 8-K, and registration statements on Forms S-1 and S-3. Disclosure with respect to the SASB Standards is not required or endorsed by the SEC or other entities governing financial reporting, such as FASB, GASB, or IASB.

Scope of Disclosure

Unless otherwise specified, SASB recommends:

- That a registrant disclose on sustainability issues and metrics for itself and for entities that are consolidated for financial reporting purposes as defined by accounting principles generally accepted in the United States for consistency with other accompanying information within SEC filings;[8]
- That for consolidated entities, disclosures be made, and accounting metrics calculated, for the whole entity, regardless of the size of the minority interest; and
- That information from unconsolidated entities not be included in the computation of SASB accounting metrics. A registrant should disclose, however, information about unconsolidated entities to the extent that the registrant considers the information necessary for investors to understand the effect of sustainability topics on the company's financial condition or operating performance (typically, this disclosure would be limited to risks and opportunities associated with these entities).

Reporting Format

Use of Financial Data

In instances where accounting metrics, activity metrics, and technical protocols in this standard incorporate financial data (e.g., revenues, cost of sales, expenses recorded and disclosed for fines, etc.), such financial data shall be prepared in accordance with the accounting principles generally accepted in the United States of America ("US

[7] Registration under the Securities Exchange Act of 1934 is required (1) for securities to be listed on a national securities exchange such as the New York Stock Exchange, the NYSE Amex, and the NASDAQ Stock Market or (2) if (A) the securities are equity securities and are held by more than 2,000 persons (or 500 persons who are not accredited investors) and (B) the company has more than $10 million in assets.
[8] See US GAAP consolidation rules (Section 810).

GAAP") and be consistent with the corresponding financial data reported within the registrant's SEC filings. Should accounting metrics, activity metrics and technical protocols in this standard incorporate disclosure of financial data that is not prepared in accordance with US GAAP, the registrant shall disclose such information in accordance with the SEC Regulation G.

Activity Metrics and Normalization

SASB recognizes that normalizing accounting metrics is important for the analysis of SASB disclosures.

SASB recommends that a registrant disclose any basic business data that may assist in the accurate evaluation and comparability of disclosure, to the extent that they are not already disclosed in the Form 10-K (e.g., revenue, EBITDA, etc.).

Such data—termed "activity metrics"—may include high-level business data such as total number of employees, quantity of products produced or services provided, number of facilities, or number of customers. It may also include industry-specific data such as plant capacity utilization (e.g., for specialty chemical companies), number of transactions (e.g., for Internet media and services companies), hospital bed days (e.g., for health care delivery companies), or proven and probable reserves (e.g., for oil and gas exploration and production companies).

Activity metrics disclosed should:

- Convey contextual information that would not otherwise be apparent from SASB accounting metrics.
- Be deemed generally useful for an investor relying on SASB accounting metrics in performing their own calculations and creating their own ratios.
- Be explained and consistently disclosed from period to period to the extent they continue to be relevant. However, a decision to make a voluntary disclosure in one period does not obligate a continuation of that disclosure if it is no longer relevant or if a better metric becomes available.[9]

Where relevant, SASB recommends specific activity metrics that—at a minimum—should accompany SASB accounting metric disclosures.

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of active projects[10]	Quantitative	Number	IF0301-A
Number of commissioned projects[11]	Quantitative	Number	IF0301-B
Total backlog[12]	Quantitative	U.S. dollars ($)	IF0301-C

[9] *Improving Business Reporting: Insights into Enhancing Voluntary Disclosures*, FASB Business Reporting Research Project, January 29, 2001.

[10] Note to **IF0301-A**—Active projects are defined as buildings and infrastructure construction projects currently under development by the registrant, including, but not limited to, the design and construction stages. Active projects exclude projects that were commissioned during the fiscal year.

[11] Note to **IF0301-B**—Commissioned projects are defined as projects that were completed and deemed ready for service during the fiscal year. The scope of commissioned projects shall only include construction projects.

[12] Note to **IF0301-C**—Backlog is defined as the value of projects not completed, or is defined by the registrant, consistent with existing public disclosure of backlog. The scope includes all backlog (domestic, international, public, and private) for construction projects and all

Units of Measure

Unless specified, disclosures should be reported in International System of Units (SI units).

Uncertainty

SASB recognizes that there may be inherent uncertainty when disclosing certain sustainability data and information. This may be related to variables such as the reliance on data from third-party reporting systems and technologies, or the unpredictable nature of climate events. Where uncertainty around a particular disclosure exists, SASB recommends that the registrant should consider discussing its nature and likelihood.

Estimates

SASB recognizes that scientifically based estimates, such as the reliance on certain conversion factors or the exclusion of *de minimis* values, may occur for certain quantitative disclosures. Where appropriate, SASB does not discourage the use of such estimates. When using an estimate for a particular disclosure, SASB expects that the registrant discuss its nature and substantiate its basis.

Timing

Unless otherwise specified, disclosure shall be for the registrant's fiscal year.

Limitations

There is no guarantee that SASB Standards address all sustainability impacts or opportunities associated with a sector, industry, or company, and therefore, a company must determine for itself the topics—sustainability-related or otherwise—that warrant discussion in its SEC filings.

Disclosure under SASB Standards is voluntary. It is not intended to replace any legal or regulatory requirements that may be applicable to user operations. Where such laws or regulations address legal or regulatory topics, disclosure under SASB Standards is not meant to supersede those requirements. Disclosure according to SASB Standards shall not be construed as demonstration of compliance with any law, regulation, or other requirement.

SASB Standards are intended to be aligned with the principles of materiality enforced by the SEC. However, SASB is not affiliated with or endorsed by the SEC or other entities governing financial reporting, such as FASB, GASB, or IASB.

Forward-looking Statements

Disclosures on sustainability topics can involve discussion of future trends and uncertainties related to the registrant's operations and financial condition, including those influenced by external variables (e.g., environmental, social, regulatory, and political). Companies making such disclosures should familiarize themselves with the safe

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other projects undertaken by the company including engineering, architecture and design, installation, planning, consulting, and repair and maintenance, among others.

harbor provisions of Section 27A of the Securities Act and Section 21E of the Exchange Act, which preclude civil liability for material misstatements or omissions in such statements if the registrant takes certain steps, including, among other things, identifying the disclosure as "forward-looking" and accompanying such disclosure with "meaningful cautionary statements identifying important factors that could cause actual results to differ materially from those in the forward-looking statements."

The following sections contain the disclosure guidance associated with each accounting metric such as guidance on definitions, scope, accounting, compilation, and presentation.

The term "shall" is used throughout this document to indicate those elements that reflect requirements of the Standard. The terms "should" and "may" are used to indicate guidance, which, although not required, provides a recommended means of disclosure.

Table 1. Sustainability Disclosure Topics & Accounting Metrics

TOPIC	ACCOUNTING METRIC	CATEGORY	UNIT OF MEASURE	CODE
Environmental Impacts of Project Development	Number of incidents of non-compliance with environmental permits, standards, and regulations	Quantitative	Number	IF0301-01
	Discussion of processes to assess and manage environmental risks associated with project design, siting, and construction	Discussion and Analysis	n/a	IF0301-02
Structural Integrity & Safety	Amount of defect- and safety-related rework expenses	Quantitative	U.S. Dollars ($)	IF0301-03
	Amount of legal and regulatory fines and settlements associated with defect- and safety-related incidents[13]	Quantitative	U.S. Dollars ($)	IF0301-04
Workforce Health & Safety	(1) Total recordable injury rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees	Quantitative	Rate	IF0301-05
Climate Impacts of Business Mix	Backlog for (1) hydrocarbon-related projects and (2) renewable energy projects	Quantitative	U.S. Dollars ($)	IF0301-06
	Amount of backlog cancellations associated with hydrocarbon-related projects	Quantitative	U.S. Dollars ($)	IF0301-07
	Backlog for non-energy projects associated with climate change mitigation	Quantitative	U.S. Dollars ($)	IF0301-08
Lifecycle Impacts of Buildings & Infrastructure	Number of (1) commissioned projects certified to a multi-attribute sustainability standard and (2) active projects seeking such certification	Quantitative	Number	IF0301-09
	Description of process to incorporate operational-phase energy and water efficiency considerations into project planning and design	Discussion and Analysis	n/a	IF0301-10

[13] Note to **IF0301-04**—Disclosure shall include a description of fines and settlements and corrective actions implemented in response to events.

Table 1. Sustainability Disclosure Topics & Accounting Metrics (cont.)

TOPIC	ACCOUNTING METRIC	CATEGORY	UNIT OF MEASURE	CODE
Business Ethics & Bidding Integrity	(1) Number of active projects and (2) backlog in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index[14]	Quantitative	Number, U.S. Dollars ($)	IF0301-11
	Amount of legal and regulatory fines and settlements associated with charges of (1) bribery or corruption and (2) anti-competitive practices[15]	Quantitative	U.S. Dollars ($)	IF0301-12
	Description of policies and practices for prevention of (1) corruption and bribery and (2) anti-competitive behavior in the project bidding processes	Discussion and Analysis	n/a	IF0301-13

[14] Note to **IF0301-11**—The registrant shall provide a brief description of its approach to managing ethical risks specific to the countries referenced above where the registrant has active projects and/or backlog.
[15] Note to **IF0301-12**—Disclosure shall include a description of fines and settlements and corrective actions implemented in response to events.

Environmental Impacts of Project Development

Description

Infrastructure construction projects help improve economic and social development; however, they can also pose risks to the local environment and surrounding communities. Industry activities can disrupt local ecosystems through biodiversity impacts, emissions into the air, water discharges, natural resource consumption, waste generation, and the use of hazardous chemicals. In particular, construction companies perform clearing, grading, and excavation activities and may generate harmful waste during project construction. Effectively assessing environmental impacts prior to construction may help mitigate unforeseen issues that can raise operational and capital costs. In some cases, environmental concerns and/or local community pushback can result in project delays and, in extreme cases, project cancellations, which may impact a company's profitability and growth opportunities. A failure to comply with environmental regulations during construction can result in costly fines and damage a company's reputation. Rigorous environmental impact assessments can provide an understanding of a project's potential environmental impacts and the mitigation activities that are necessary before it begins. Likewise, proper management of environmental risks during project construction can reduce regulatory oversight and/or community pushback. By assessing environmental considerations up front, as well as continuing to evaluate them during project development, construction and engineering companies may be better prepared to mitigate the potential environmental issues and possible financial impacts that may occur.

Accounting Metrics

IF0301-01. Number of incidents of non-compliance with environmental permits, standards, and regulations

.01 The registrant shall disclose the total number of instances of non-compliance associated with the environment, including, but not limited to, violations of permits or regulations associated with waste, air quality and/or emissions, water discharges, water withdrawal exceedances, effluent limit exceedances (such as waste load allocation), violation of wastewater pretreatment requirements, oil or hazardous substance spills, land use, and endangered species, among others.

.02 The scope of disclosure includes incidents governed by federal, state, and local statutory permits and regulations.

.03 The scope includes incidents of non-compliance received by the registrant and by subcontractors under the registrant's direct supervision.

.04 An incident of non-compliance shall be disclosed regardless of whether it resulted in an enforcement action (e.g., fine, warning letter, etc.).

.05 An incident of non-compliance, regardless of the measurement methodology or frequency, shall be disclosed. These include violations for one-time violations, continuous discharges, and non-continuous discharges.

IF0301-02. Discussion of processes to assess and manage environmental risks associated with project design, siting, and construction

.06 The registrant shall describe the processes it employs to assess and manage the environmental risks associated with project siting, design and construction, where:

- The scope includes project stages associated with siting, design and construction that the registrant is officially involved with through contractual responsibility.
  - The scope of project stages associated with siting, design, and construction includes, but is not limited to, feasibility studies, proposals, design and planning, subcontractor procurement, and construction.

.07 The registrant shall describe the due diligence practices it employs to assess the environmental risks of projects, where relevant due diligence practices include environmental impact assessments and stakeholder engagement practices.

- Relevant items to discuss include practices to assess the baseline environmental considerations of the project site, feasible environmentally preferable alternatives for the project, local legal requirements, the protection of biodiversity, use of renewable natural resources, use of hazardous substances, and efficient production, delivery and use of energy, among others.

.08 The registrant should discuss its approach to categorizing the severity of environmental risk for its projects, including how it determines if a project has heightened environmental risk.

.09 The registrant shall describe the operational practices it employs to the minimize environmental impacts during project siting, design, and construction, which may include, but are not limited to, waste management, reducing biodiversity impacts, emissions to air, discharges to water, natural resource consumption, and hazardous chemical usage.

.10 The registrant shall discuss its approach to operating in compliance with all applicable environmental regulations.

- Relevant items to discuss include employee training on relevant regulations and cleanup procedures, quality control processes on project sites, internal mechanisms for reporting and following up on environmental incidents, and maintenance and reporting of accurate data, among others.

.11 The registrant shall discuss its approach to managing projects that have heightened environmental and/or social due diligence requirements or are expected to have significant adverse environmental and/or social impacts, including additional measures or policies it employs.

- An example of a project type that has heightened environmental and/or social impacts are "Category A" projects categorized by the International Finance Corporation (IFC).

.12 The registrant shall discuss the use of codes, guidelines, and standards to assess and minimize environmental impacts of project siting, design, and construction, where applicable. Relevant codes, guidelines, and standards may include, but are not limited to:

- The Equator Principles;
- United Nations Development Programme's Performance Standards on Environmental and Social Sustainability;
- United Nations Global Compact's Environmental Principles;
- International Finance Corporation's Environmental and Social Performance Standards and Guidance Notes;
- Institute for Sustainable Infrastructure's (ISI) Envision® rating system;
- International Organization for Standardization (ISO) environmental standards;
- U.S. Green Building Council's LEED® certification; and
- BREEAM.

.13 Where applicable and relevant, the registrant shall describe differences between policies and practices for its different operating regions, project types, business segments, etc.

Structural Integrity & Safety

Description

Whether providing engineering, design, architectural, consulting, inspection, construction, or maintenance services, companies in this industry have a professional responsibility to ensure the safety and integrity of their work. Errors and inadequate quality in building and infrastructure project design and construction can cause significant personal injury, loss of property value, and economic harm. Companies that perform poorly on structural integrity and safety can therefore face potentially high costs due to redesign and/or repair work and legal liabilities, as well as reputational damage that could hurt growth prospects. Moreover, building and infrastructure project design and construction must increasingly contemplate potential climate change impacts, which may affect the structural integrity of projects and the safety of the general public. Compliance with minimum applicable codes and standards may not be sufficient in certain circumstances, especially if the frequency and severity of climate-change-related events increases as expected. Meeting or setting new industry standards for quality and establishing internal control procedures to address potential design issues, including those resulting from climate risks, are practices that can help companies reduce these risks.

Accounting Metrics

IF0301-03. Amount of defect- and safety-related rework expenses

.14 The registrant shall disclose the total amount of rework costs incurred, in U.S. dollars, including costs associated with labor, materials, design, equipment, and subcontractors, where:

- Rework is defined, consistent with the Construction Industry Institute's definition, as activities in the field that have to be done more than once in the field or activities that remove work previously installed as part of the project.

- For the purposes of this disclosure, the scope of rework costs excludes costs resulting from client- or project-owner-driven modifications including, but not limited to, change orders, revisions to scope, or revisions to design.

.15 The registrant should discuss projects with significant rework costs relative to actual or projected total project costs. Relevant context to provide may include, but is not limited to:

- Root causes of rework;

- Corrective actions implemented; and

- Financial impacts to company.

IF0301-04. Amount of legal and regulatory fines and settlements associated with defect- and safety-related incidents

.16 The registrant shall disclose the amount in U.S. dollars (excluding legal fees) of all fines or settlements associated with defect- and safety-related incidents and allegations.

.17 Disclosure shall include civil actions (e.g., civil judgment, settlements, or regulatory penalties) and criminal actions (e.g., criminal judgment, penalties, or restitutions) taken by any entity (government, businesses, or individuals).

.18 The registrant should discuss incidents that resulted in significant fines and settlements. Relevant context to provide may include, but is not limited to:

- Root causes of the incident;
- Corrective actions implemented; and
- Financial impacts to company.

Note to **IF0301-04**

.19 The registrant shall briefly describe the nature (e.g., guilty plea, deferred agreement, non-prosecution agreement) and context (e.g., negligence) of fines and settlements.

.20 The registrant shall describe any corrective actions it has implemented as a result of each incident. This may include, but is not limited to, specific changes in operations such as management, processes, products, services, business partners, training, technology, or processes for internal investigations for malpractice or negligence.

Workforce Health & Safety

Description

Construction, maintenance, and repair services and other on-site activities require a substantial amount of manual labor. Compared with those in other industries, the Engineering & Construction Services industry has some of the highest fatality rates, as powered-haulage and heavy machinery accidents, fall accidents, exposure to hazardous chemicals, and other unique and potentially dangerous situations can lead to worker and contractor fatalities or injuries. Additionally, temporary workers may be at a higher risk due to lack of training or industry experience. Failing to protect worker health and safety can result in fines and penalties; very serious incidents can lead to acute, one-time extraordinary expenses and contingent liabilities from legal and/or regulatory actions. In addition, health and safety incidents can result in project delays and downtime that raise projects costs and lower profitability. Companies that seek to properly train both permanent and temporary employees and build a strong safety culture could reduce their risk profile while potentially gaining a competitive advantage in new project bids and proposals as a result of strong workforce health and safety track records.

Accounting Metrics

IF0301-05. (1) Total recordable injury rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees

.21 Registrants whose workforce is entirely U.S.-based shall disclose their total recordable injury rate (TRIR) and fatality rate, as calculated and reported in Occupational Safety and Health Administration (OSHA) Form 300.

- OSHA guidelines provide details for the determination of whether an event is a recordable occupational incident as well as definitions for exemptions for incidents that occur in the work environment, but are not occupational.

.22 Registrants whose workforce includes non-U.S.-based employees shall calculate their TRIR according to the U.S. Bureau of Labor Statistics guidance and/or using the U.S. Bureau of Labor Statistics calculator.

.23 The registrant shall disclose its TRIR separately for its direct employees and contract employees, where:

- Direct employees are all employees on the registrant's payroll, whether they are labor, executive, hourly, salary, part-time, seasonal, or migrant workers.
- Contract employees are those who are not on the registrant's payroll, but who are supervised by the registrant on a day-to-day basis, including independent contractors and those employed by third parties (e.g., temp agencies, labor brokers, etc.).

.24 The scope includes domestic and foreign employees.

.25 The scope of excludes corporate employees.

.26 Rates shall be calculated as: (statistic count / total hours worked) * 200,000.

Climate Impacts of Business Mix

Description

The Engineering & Construction Services industry works with clients in industries that are exposed to potentially disruptive climate regulation. Construction projects may have significant positive or negative direct and indirect impacts on GHG emissions after finalization and when they are in their use-phase. Projects that are likely to contribute to GHG emissions include those in the energy, oil and gas, and other extractive industries, as well as those that are likely to mitigate emissions, such as mass transit systems, carbon capture and storage, and renewable and alternative energy projects. Several companies in the industry generate a substantial share of revenues and profits from clients in carbon-intensive industries and whose capital expenditures may be at risk from evolving climate regulations. Downside risks may manifest through project delays, cancellations, and diminished long-term revenue-growth opportunities. On the other hand, companies that specialize in infrastructure projects for clients in industries that help with GHG mitigation could develop competitive advantages as they continue to focus on these growing markets. As the industry and its customers continue to operate within an uncertain business environment and face increasing environmental and regulatory requirements, assessing and communicating the risks and opportunities associated with climate change on a company's backlog and growth opportunities can be helpful for investors in assessing the overall impact of climate change on the business.

Accounting Metrics

IF0301-06. Backlog for (1) hydrocarbon-related projects and (2) renewable energy projects

.27 The registrant shall disclose the amount of backlog, in U.S. dollars, associated with hydrocarbon-related projects.

- Backlog is defined by the registrant, consistent with existing public disclosure of order backlog.
- The registrant shall exclude from its calculation any amount of an order backlog cancellation that re-enters order backlog during the same fiscal year as a result of a project owner's successful re-planning of the project.
- The scope of hydrocarbon-related projects includes any type of project directly associated with the hydrocarbon value chain, including, but not limited to: hydrocarbon exploration, extraction, development, production, transportation, infrastructure services, infrastructure maintenance, power generation, and downstream services.

.28 The registrant shall disclose the amount of backlog associated with renewable energy projects.

- Renewable energy is defined as energy from sources that are replenished at a rate greater than or equal to their rate of depletion, consistent with U.S. EPA definitions, such as geothermal, wind, solar, hydro, and biomass.

.29 The scope includes all projects undertaken by the company, including engineering, architecture and design, construction, installation, planning, consulting, and repair and maintenance, among others.

.30 The registrant may choose to provide a discussion of the sustainability implications of backlog in oil, gas, and or coal projects and/or non-renewable power generation projects, including, but not limited to, project descriptions, categorizations by resource type, expected sustainability impacts, and risks related to project completion and/or conversion to revenue.

.31 If the registrant's backlog in non-renewable power generation projects is associated with natural gas power generation projects, the registrant may choose to provide supplemental disclosures describing this proportion of backlog and the sustainability impacts of such projects relative to alternatives or baseline scenarios.

IF0301-07. Amount of backlog cancellations associated with hydrocarbon-related projects

.32 The registrant shall disclose the amount of its total backlog, in U.S. dollars, associated with hydrocarbon-related projects of any type that was subject to cancellation during the fiscal year for any reason, where:

- Backlog is defined by the registrant, consistent with its existing public disclosure of backlog.
- Backlog cancellations are defined as the amount of backlog canceled, reduced, terminated, deferred such that it no longer meets the registrant's definition of backlog, or removed from the backlog for any reason other than conversion to revenue or foreign exchange rate fluctuations.
  - Backlog cancellations include those that occur for any reason, including, but not limited to, a customer's failure to obtain necessary project permitting or financing, a customer's voluntary project cancellation, and reduction in project scope due to financial constraints.
- Hydrocarbon-related projects are defined as any project directly related to the production, servicing, transportation, or consumption of hydrocarbons for use in the energy value chain. Examples include, but are not limited to, any project directly associated with oil, gas, or coal production, transportation, refining, and fossil fuel-based electricity generation.

.33 The scope excludes backlog cancellations associated with decommissioning projects.

.34 The registrant may choose to discuss specific backlog cancellations, including the root cause and corrective actions taken to prevent future backlog cancellations.

.35 The scope includes all projects undertaken by the company, including engineering, architecture and design, construction, installation, planning, consulting, and repair and maintenance, among others.

IF0301-08. Backlog for non-energy projects associated with climate change mitigation

.36 The registrant shall disclose the amount of backlog for non-energy projects associated with climate change mitigation, where non-energy projects are defined as projects that are not directly associated with the energy value chain that are motivated by, or undertaken in response to, climate change mitigation.

- Climate change mitigation is defined by the Intergovernmental Panel on Climate Change (IPCC) as an anthropogenic intervention to reduce the sources or enhance the sinks of greenhouse gases (GHG).

- The scope of disclosure shall only include projects that are significantly motivated by, or undertaken in response to, climate change mitigation. Such climate change mitigation is not required to be the primary project motivation, but it must be a significant motivating factor for project development and implementation.

- Examples of projects that may be included in the numerator include, but are not limited to: mass transportation systems; alternative, low-carbon transportation systems; carbon capture and storage; fossil fuel-related decommissioning projects; and energy efficiency infrastructure retrocommissionings.

- The scope of disclosure shall only include projects that provide significant climate change mitigation relative to a baseline scenario, or baseline emissions, defined as the GHG emissions that may occur without project implementation.

  - The registrant may use or reference all or part of the "European Investment Bank Induced GHG Footprint" methodology for assessing relative emissions (including absolute emissions and/or baseline emissions).

  - The registrant may use alternative methodologies or proprietary methodologies for assessing climate change mitigation.

- The scope of disclosure shall exclude all backlog directly associated with the energy value chain and motived by energy efficiency, which may be equivalent to backlog included in IF0301-06, with the exception of fossil fuel-related decommissioning projects.

  - The energy value chain includes conventional energy projects, including upstream projects (energy exploration and production), midstream projects (transportation and storage, pipeline, gathering, and treating and processing), and downstream projects (refining and industrial, commercial, and residential uses of energy) as well as renewable energy projects, including manufacturing, installation, and maintenance of solar panels and wind turbines, among other renewable energy technologies, and energy-efficiency projects.

.37 The registrant shall divide the amount of backlog for non-energy projects associated with climate change mitigation, in U.S. dollars, by total backlog, in U.S. dollars.

- Backlog is defined by the registrant, consistent with its existing public disclosure of backlog.

.38 If the sum of the three percentages above does not equate to 100% of the registrant's backlog associated with energy projects, the registrant shall disclose the cause of the discrepancy.

.39 The registrant may choose to exclude backlog associated with decommissioning projects.

.40 The scope includes all projects undertaken by the company, including engineering, architecture and design, construction, installation, planning, consulting, and repair and maintenance, among others.

Lifecycle Impacts of Buildings & Infrastructure

Description

Buildings and major infrastructure projects are among the largest users of natural resources in the economy; during construction, these materials include iron and steel products, cement, concrete, bricks, drywall, wallboards, glass, insulation, fixtures, doors, and cabinetry, among others. Once finished, and during their daily use, these projects often consume significant amounts of resources in the form of energy and water (for a discussion on direct environmental impacts from project construction see the "Environmental Impacts of Project Development" topic above). Therefore, the sourcing of construction materials and the everyday use of buildings and infrastructure can contribute to direct and indirect GHG emissions, global and/or local resource constraints, water stress, and negative human health outcomes. Client and regulatory pressures to develop a sustainable built environment are contributing to the growth of markets intended to reduce the lifecycle impacts of buildings and infrastructure projects. In response, various international sustainable building and infrastructure certification schemes have been developed to assess, among other aspects, a project's energy and water efficiency, impacts on human health, and the use of sustainable construction and building materials. As a result, multiple opportunities are being created for industries in the value chain—from suppliers that can provide such materials, to companies in the Engineering & Construction Services industry that can provide sustainability-oriented project design, consulting, and construction services. Such services can provide a competitive advantage and revenue growth opportunities as client demand for economically advantageous sustainable projects increases and related regulations evolve. Companies unable to integrate such considerations in their services stand to lose market share in the long term.

Accounting Metrics

IF0301-09. Number of (1) commissioned projects certified to a multi-attribute sustainability standard and (2) active projects seeking such certification

.41 The registrant shall disclose the number of projects commissioned during the fiscal year that were certified to a third-party multi-attribute sustainability standard.

- The scope of disclosure includes buildings (such as residential, commercial and retail, government, healthcare, offices, etc.) and other infrastructure projects (such as transportation, oil and gas, electrical grid, renewable energy, water supply distribution, water treatment, etc.).
- The scope includes projects in which the registrant has a direct role in design, engineering, procurement and/or construction of the building or infrastructure project.

.42 Third-party sustainability standards shall be considered within the scope of disclosure if, at a minimum, they address the following aspects of building or infrastructure design and construction:

- Energy efficiency;
- Water conservation;
- Material and resource efficiency; and
- Indoor environmental quality.

.43 The scope of third-party multi-attribute sustainability standards includes, but is not limited to, the following: LEED®, BREEAM®, Green Globes®, and Institute for Sustainable Infrastructure's (ISI) Envision® rating system.

.44 The registrant shall disclose the number of active projects that were seeking certification to a multi-attribute sustainability standard during the fiscal year.

- The scope of disclosure includes all active buildings and infrastructure projects currently under development, including, but not limited to, those in the design and construction stages. Active projects exclude projects that were commissioned during the fiscal year.

.45 The registrant shall disclose the sustainability standard(s) to which commissioned buildings and infrastructure projects are certified or seeking certification.

.46 The registrant may choose to discuss sustainability standards or guidelines that it implements into its building and infrastructure project design and construction that are not third-party verified.

IF0301-10. Description of process to incorporate operational-phase energy and water efficiency considerations into project planning and design

.47 The registrant shall provide a description of the process it uses to incorporate operational-phase energy and water efficiency considerations into project planning and design, where:

- Operational-phase energy and water efficiency considerations are solutions aimed at reducing and optimizing operational use of energy and water, including water collection and reuse designs, repair and retrofits, improved insulation and material use, shading devices, alternative energy procurement, and use of energy- and water-efficient devices and lighting, among other efficiency solutions.

.48 Relevant information to disclose includes, but is not limited to:

- The actions taken to incorporate such considerations, such as design solutions, technological solutions, material use, modeling of energy and water use, etc.;

- The geographic markets where the registrant operates in, including current and expected future energy-efficiency and water-efficiency regulations, and potential constraints on water and/or energy resources, and stakeholder demands in those markets.

- Whether these energy- and water-efficiency solutions serve as competitive advantages in project bids and proposals, and how the registrant communicates performance, including any perceived competitive advantages, to project owners; and

- How the registrant communicates long-term cost-benefit analyses to project owners or developers, including the potential savings from energy efficiency projects based on past performance of energy-efficiency projects.

.49 The registrant shall discuss its approach to assessing risks associated with operational-phase energy- and water-efficiency considerations, including internal policies, practices, and procedures.

.50 The registrant shall discuss the use of codes, guidelines, and standards that address operational-phase energy and water efficiency, where applicable.

- The registrant should discuss how its energy- and water-efficiency efforts exceed building code requirements.

.51 The scope of project planning and design processes excludes codes, guidelines, and standards covered under IF0301-02, which cover the registrant's environmental impacts during project construction/execution.

Business Ethics & Bidding Integrity

Description

Companies in the industry face risks associated with bribery, corruption, and anti-competitive practices. This is due to several factors, including the global operations of many companies; the need to manage multiple local agents and subcontractors; the magnitude of the contracts involved in building large facilities and infrastructure projects; and the competitive process necessary to secure contracts with private and public entities, which may at times require dealing with corrupt third parties. Violations of anti-bribery laws, such as paying corrupt government officials in order to gain project contracts, and unethical bidding practices, such as complementary bidding (submitting an artificially high or unacceptable bid for a contract that a bidder does not intend to win) and bid-pooling (coordinating to split contracts and assure each bidder is awarded a certain amount of work) can result in investigations by authorities in multiple jurisdictions, as well as large fines and settlement costs. Moreover, companies with poor track records can be barred from working on future projects, resulting in lost revenue. Developing an ethical culture through employee training, effective governance structures, and internal controls is critical for companies to retain their social license to operate.

Accounting Metrics

IF0301-11. (1) Number of active projects and (2) backlog in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index

.52 The registrant shall disclose the number of active projects located in the countries with the 20 lowest rankings in Transparency International's Corruption Perception Index (CPI).

.53 Active projects are defined as buildings and infrastructure projects currently under development by the registrant, including, but not limited to, those in the design and construction stages. Active projects exclude projects that were commissioned during the fiscal year.

.54 The scope includes all projects undertaken by the company, including engineering, architecture and design, construction, installation, planning, consulting, and repair and maintenance, among others.

.55 The registrant shall disclose the amount of backlog, in U.S. dollars, for projects located in the countries with the 20 lowest rankings in Transparency International's CPI.

- Backlog is defined by the registrant, consistent with its existing public disclosure of backlog.

.56 The 20 lowest numerical ranks shall be used to generate the scope of countries; therefore, due to the fact that multiple countries share many ranks, the scope may include more than 20 countries.

.57 The registrant shall use the most current version of the CPI via Transparency International's publicly accessible website.

.58 The registrant may choose to provide discussion around active projects or backlog that are located in countries with low rankings in the index but that present low business ethics risks. The registrant may choose to provide similar discussion for operations located in countries that do not have one of the 20 lowest rankings in the index but that present unique or high business ethics risks.

Note to **IF0301-11**

.59 The registrant shall provide a brief description of its approach to managing ethical risks specific to the countries referenced above where the registrant has active projects and/or backlog.

IF0301-12. Amount of legal and regulatory fines and settlements associated with charges of (1) bribery or corruption and (2) anti-competitive practices

.60 The registrant shall disclose the amount (excluding legal fees) of all fines or settlements associated with incidents relating to bribery and corruption, including, but not limited to, violations of the Foreign Corrupt Practices Act of 1977 (FCPA) (15 U.S.C. § 78dd-1, et seq.).

.61 The registrant shall disclose the amount (excluding legal fees) of all fines or settlements associated with anti-competitive behavior, such as those related to enforcement of U.S. laws and regulations on price-fixing, conflicts of interest, antitrust behavior (e.g., exclusivity contracts), or services that limit competition, including violations of the Sherman Antitrust Act of 1890 and the Clayton Antitrust Act of 1914.

- The scope of anti-competitive behavior includes complementary bidding, defined as the practice of submitting an artificially high or unacceptable bid for a contract that the bidder does not intend to win. Complimentary bidding is also referred to as "cover bidding," "cover pricing," and "courtesy bidding."

- The scope of anti-competitive behavior includes bid-pooling, defined as the practice of coordinating to split contracts and assure each bidder is awarded a certain amount of work.

.62 Disclosure shall include civil actions (e.g., civil judgment, settlements, or regulatory penalties) and criminal actions (e.g., criminal judgment, penalties, or restitutions) taken by any entity (government, businesses, or individuals).

Note to **IF0301-12**

.63 The registrant shall briefly describe the nature (e.g., guilty plea, deferred agreement, or non-prosecution agreement) and context (e.g., bribing an official, etc.) of fines and settlements.

.64 The registrant shall describe any corrective action it has implemented as a result of each incident. This may include, but is not limited to, specific changes in operations, management, processes, products, business partners, training, or technology.

IF0301-13. Description of policies and practices for prevention of (1) corruption and bribery and (2) anti-competitive behavior in the project bidding processes

.65 The registrant shall discuss its management system and due diligence procedures for assessing and managing corruption and bribery risks and anti-competitive practices internally its project bidding and approval processes as well as those associated with business partners in its value chain.

- Corruption and bribery includes practices relating to the abuse of entrusted power for personal gain, including payments to foreign government officials to assist in obtaining or retaining business.
- Anti-competitive behavior includes practices relating to conflicts of interest, accuracy of data, fraud, price-fixing, antitrust behavior (e.g., exclusivity contracts), complementary bidding, bid-pooling, and other practices that limit competition.
  - Complementary bidding is defined as the practice of submitting an artificially high or unacceptable bid for a contract that the bidder does not intend to win. Complimentary bidding is also referred to as "cover bidding," "cover pricing," and "courtesy bidding."
  - Bid-pooling is defined as the practice of coordinating to split contracts and assure each bidder is awarded a certain amount of work.
- Relevant business partners in the value chain include customers, suppliers, contractors, and subcontractors.

.66 Relevant aspects of a management system may include employee awareness programs, anti-corruption policies, training, internal mechanisms for reporting and following up on suspected violations, and implementation of codes of ethics as well as investigations, enforcement, and disciplinary procedures relating to:

- Management of conflicts of interest, including mitigation and transparency of potential or perceived conflicts;
- Maintenance and reporting of accurate data;
- Protection of confidential business information, including accuracy, retention, and destruction of business records and documents;
- Avoidance of corruption, including identification of suspicious activities and implementation of whistleblower protection programs;
- Privacy guidelines and security clearances for gaining access to sensitive and classified data;
- Employee training on relevant regulations;
- Mechanisms for internal reporting about violations or concerns regarding business ethics or compliance; and
- Disciplinary actions for violations of business ethics policies.

.67 The registrant may choose to discuss the implementation of one or more of the following in its value chain:

- Key Organization for Economic Co-operation and Development (OECD) guidelines;
- International Chamber of Commerce (ICC): Rules of Conduct against Extortion and Bribery;
- Transparency International: Business Principles for Countering Bribery;
- United Nations Global Compact: 10th Principle, and
- World Economic Forum (WEF): Partnering Against Corruption Initiative (PACI).

.68 The registrant may choose to discuss compliance with industry best practices, including codes of conduct and codes of ethics, as a measure of its management approach to ensuring quality of work and professional integrity.

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