PRISMA 2020 Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review: *Sustainability Performance in On-Site Construction Processes: **A Systematic Literature Review.***	Title (ok)
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist. *Background, Methods, Results and Discussion are included in the abstract according to PRISMA 2020 Abstracts Checklist.*	Abstract (ok)
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge. *(e.g., Researchers have shown that the construction industry affects the environment in numerous ways across projects' life cycles, generating significant negative environmental impacts. Particularly from the perspective of O-SCP, there is an increasing demand for environmentally friendly practices in order to minimize the negative impacts associated with the building sector. This article responds to such exigencies by evaluating and synthesizing a range of scholarly contributions within the field of construction management, to understand these effects comprehensively).*	Section 1: Introduction - First, second and third paragraph (ok)
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses. *Two research questions were included.*	Section 1: Introduction - Last paragraph (ok)
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses. *The inclusion and exclusion criteria for the review were included along with the Systematic Literature Review Process.*	Section 2: Research Method - Figure 1 (ok)
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted. *(e.g., The Systematic Literature Review (SLR) was conducted within the Scopus and Web of Science databases, which are widely recognized as extensive repositories of peer-reviewed scholarly manuscripts).*	Section 2: Research Method – First paragraph (ok)
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used. *(e.g., The initial phase of the research involved comprehensive searches across the databases to gather a significant collection of relevant academic articles. The search criteria were broad, including subject areas, titles, authors, journal names, publication years, abstracts, and keywords, aiming to identify 200 articles pertinent to Sustainability Performance in construction).*	Section 2: Research Method – Phase 1 and Phase 2 (ok)
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process. *(e.g., Of the 354 articles that remained, a detailed topic and category evaluation was conducted, resulting in the removal of studies not specifically focused on the interplay between sustainable practices, sustainability indicators, and on-site construction processes. This focused the review on articles relevant to Sustainability Performance in Construction Processes, narrowing the field to 219 articles. Further screening based on publication titles and publishers led to the exclusion of an additional 11 articles. Once duplicates were removed, 101 unique articles were left, which were then taken forward for qualitative analysis in Phase IV).*	Section 2: Research Method - Figure 1 and Phase 3 (ok)
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process. *The methods were included in the section reported.*	Section 2: Research Method – Phase 1 and Phase 2 (ok)

PRISMA 2020 Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect. *The methods were included in the section reported.*	Section 2: Research Method – Phase 1 and Phase 2 (ok)
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information. *The descriptions were included in the section reported.*	Section 2: Research Method – Phase 1 and Phase 2 (ok)
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process. *(e.g., Microsoft Excel and the Web of Science (WOS) platform, known for its extensive bibliometric capabilities, were utilized to facilitate this analysis. Using the features available on WOS, the study examined the 40 selected articles, extracting quantitative data that shed light on themes, keywords, citation counts, references, and authorship patterns within the sustainable building projects literature).*	Section 2: Research Method – Phase 1 to Phase 5 (ok)
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results. *(e.g., In the final step, the SLR focused on developing four concept maps to aid in the data analysis and interpretation prioritizing sustainable aspects and indicators based on the citation frequencies. The first three maps were informed by insights gained from the earlier phases, while the fourth featured a code comparison to analyze the nexus between construction practices and sustainability principles, as shown in Figures 5 to 8).*	Section 2: Research Method – Last two paragraphs in Phase 5 (ok)
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)). *The processes were included in the section reported.*	Section 2: Research Method – Figure 2, Phase 4 and Phase 5 (ok)
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions. *The methods were included in the section reported.*	Section 2: Research Method – Figure 2, Phase 4 and Phase 5 (ok)
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses. *The methods were included in the section reported.*	Section 2: Research Method – Figure 2, Phase 4 and Phase 5 (ok)
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used. *The methods were included in the section reported.*	Section 2: Research Method – Figure 2, Phase 4 and Phase 5 (ok)
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression). *The methods were included in the section reported.*	Section 2: Research Method – Figure 2, Phase 4 and Phase 5 (ok)
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results. *The analyses were included in the section reported.*	Section 2: Research Method – Figure 2, Phase 4 and Phase 5 (ok)
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases). *The methods were included in the section reported.*	Section 2: Research Method – Figure 2, Phase 4 and Phase 5 (ok)

PRISMA 2020 Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome. *The methods were included in the section reported.*	Section 2: Research Method – Figure 2, Phase 4 and Phase 5 (ok)
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram. *The results were included in the section reported.*	Section 2: Research Method - Figure 1 (ok)
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded. *(e.g., The abstracts of these articles were examined, leading to the exclusion of those not pertinent to construction projects, O-SCP, or sustainability and its indicators within the construction context).*	Section 2: Research Method – Phase 4 and Phase 5. (ok)
Study characteristics	17	Cite each included study and present its characteristics. *The citation and characteristics of each study were included in the section reported.*	Section 3: Findings – 3.1 Exploratory data analysis – Table 1. (ok)
Risk of bias in studies	18	Present assessments of risk of bias for each included study. *The description was included in the section reported.*	Section 3: Findings – 3.2 Document analysis – Table 2 and 3. (ok)
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots. *The results of individual studies were included in the section and tables reported.*	Section 3: Findings – 3.2 Document analysis – From Table 4 to 6. (ok)
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies. *The results were included in the section and tables reported.*	Section 3: Findings – 3.2 Document analysis (ok)
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect. *The results were included in the section, figures and tables reported.*	Section 3: Findings – 3.2 Document analysis – From Table 4 to 6. and Figures 6 to 8 (ok)
	20c	Present results of all investigations of possible causes of heterogeneity among study results. *The results were included in the section, figures and tables reported.*	Section 3: Findings – 3.2 Document analysis – From Table 4 to 6. and Figures 6 to 8 (ok)
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results. *The results were included in the section, figures and tables reported.*	Section 3: Findings – 3.2 Document analysis – From Table 4 to 6. and Figures 6 to 8 (ok)
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed. *The assessments were included in the section reported.*	Section 3: Findings – 3.2 Document analysis (ok)

PRISMA 2020 Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed. *(e.g., Figure 9 classifies the scope of the SLR, focusing on the interrelation between 'Sustainability and 'Construction.' The three spheres represent the main thematic areas of the reviewed literature. The overlapping areas of the circles indicate the interdisciplinary nature of the literature, with some articles addressing multiple themes that intersect at various points).*	Section 3: Findings – 3.2 Document analysis – Figure 9 (ok)
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence. *(e.g., The analysis reflects an increased focus on the interplay between sustainability concepts and construction performance, particularly from 2019 onwards. This period accounts for half of the published articles (20 out of 40) in this domain, highlighting a surge in research interest during these years).*	Section 4: Discussion – 4.1 General Perspectives (ok)
	23b	Discuss any limitations of the evidence included in the review. *(e.g., Despite achieving the study objectives, noteworthy limitations exist. Firstly, the focus on reviewing journal articles excluded consideration of other sources like conference articles, industry reports, and policy documents, potentially overlooking relevant information).*	Section 5: Conclusion – Last paragraph (ok)
	23c	Discuss any limitations of the review processes used. *(e.g., However, the applied clustering of aspects is subjective and should be viewed as conceptual guides rather than discrete categories. Fourthly, prioritizing indicators based on citation frequencies may not necessarily reflect their importance in a specific context).*	Section 5: Conclusion (ok)
	23d	Discuss implications of the results for practice, policy, and future research. *(e.g., From a managerial perspective, the findings have dual implications. Firstly, by identifying and prioritizing key dimensions and aspects, the study offers guidance to practitioners and project team members on enhancing sustainability in O-SCP. Secondly, the indicators serve to assess and convey information about the environmental, social, and economic aspects of construction).*	Section 4: Discussion and Section 5: Conclusion – Last two paragraphs (ok)
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered. *The Review was not registered because our systematic review differs from PROSPERO's emphasis on social and health domain reviews.*	Not included
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	Not included
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	Not included
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	Included
Competing interests	26	Declare any competing interests of review authors.	Included
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	Included

From: Page, M.J.; McKenzie, J.E.; Bossuyt, P.M.; Boutron, I.; Hoffmann, T.C.; Mulrow, C.D.; Shamseer, L.; Tetzlaff, J.M.; Akl, E.A.; Brennan, S.E.; et al. The PRISMA 2020 Statement: An Updated Guideline for Reporting Systematic Reviews. Int. J. Surg. 2021, 88, 105906. https://doi.org/10.1016/j.ijsu.2021.105906

For more information, visit: http://www.prisma-statement.org/