

How Key Differences in the 2020 Update of the Code of Ethics Will Affect the Civil Engineering Profession—and Humanity

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Introduction

After two years, it is clear that the pandemic's impact on humanity has yet to subside. However, there has been a subtle shift in many people: Our concern for the environment has strengthened and our care for one another has expanded. These are invaluable impacts on human society, and the civil engineering sector is no exception. In October 2020, just seven months after the beginning of the COVID-19 pandemic, the American Society of Civil Engineers Board of Directors approved an updated script of the ASCE Code of Ethics. This new Code is a mirror for our heightened concern for the environment and one another. It embraces a deepened sense of humanity, a renewed commitment to the environment, and a rejection of unfair practices by offering a higher vision of an intrinsic, ethical way of living and practicing our profession rather than laying down copious rules that require external obedience.

Key Changes

Upon a cursory read of the 2020 update and the 2017 version, the reader's first impression is the difference in length and structure. While the previous version contains a multifarious number of topics, the updated version focuses on brevity, allowing readers to feel less overwhelmed by the document and gain a better sense of its overall message. Compared to the seemingly unspecific order of the eight canons in 2017, the newer version now presents a succinct list of five stakeholders in order of priority for better application. Additionally, the most recently added Canon 8 was highlighted at the text's beginning and end to heighten the importance of mutual respect in ethical considerations. With this concept in the foundation of the 2020 Code, the new structure gives engineers a simpler, more complete picture of the definition of an ethical engineer.

A second key difference between codes points at the wording of the individual clauses. Rather than attempting to specify actions for certain situations, the updated Code outlines expected resolutions toward the 5 shareholders. In places where the previous Code may say "shall not engage in," the new version states "shall reject any form of." Where the last version focused on "the general public", the newer version demands a concern for "humanity." These changes give the engineer a direction to point in rather than a line to toe. In essence, the stronger and broader verbiage in the October 2020 update enhances the Code of Ethics from regulations to values.

Adjusting Our Priorities

One of the most noticeable adjustments to the Code is its addition of a weighted code of ethics. When reading the 2017 script, the canons seem listed at random, giving engineers no guidance in determining the best course of action for a scenario where both outcomes produce ethical concerns. The new Code solves this problem by explicitly stating that “In the case of conflict, between ethical responsibilities, the five stakeholders are listed in order of priority.” It goes on to mention that clauses within each stakeholder group hold no priority over one another. This change fixes one of the largest complaints with the 2017 version: lack of direction when it came to each canon’s importance. According to ASCE’s article¹ on the update, “the previous code offered little assistance to engineers in resolving dilemmas raised by two conflicting ethical principles, such as a conflict between truthfulness (the central precept of the old code’s canon 3) and protection of a client’s confidences (an element of faithful service under canon 4).” This weighted, carefully ordered code clears up any conflicts and illustrates the concept of order bias.

Order bias states that an item at the top of a list is most likely to be viewed and remembered by the reader. One example of the effect of order bias in the 2020 update is Canon 8’s implementation into both Stakeholder 1 and the Preamble. This clause upholds that engineers should “treat all persons with respect, dignity, and fairness in a manner that fosters equitable participation without regard to personal identity.” It is clear that Canon 8’s addition in 2017 made a valuable impact on members of the American Society of Civil Engineers. However, adjusting its placement in the list further emphasizes its importance in the Society’s definition of an ethical engineer, and appears to have been one of the motivations behind the Code’s 2020 rewrite. If a group of people is assigned to enhance the quality of life for humanity, they must first enhance the workplace in which those projects take place. Victim-blaming, racism, classism, sexism, and many other topics are the proverbial weeds of society that public service members such as civil engineers must uproot in order to ethically serve humanity as a whole.

Say That Again?: Phrasing Makes a Difference

While the differences in structure are striking, subtle alterations to specific phrases in the new version further contribute to the Code’s shift from ethical rules to ethical values.

The newest version of the Code provides an intensified focus on healthy workplace environments. 2017’s Code gives the guidance, “Engineers shall not engage in discrimination or harassment in connection with their professional activities” (Canon 8). Compare this to 2020’s clause: Engineers “reject all forms of discrimination and harassment” (Stakeholder I.f). The shift from “not engage in” to “reject all forms of” indicates a deeper internal conviction and exhorts the reader to take more decisive action against discrimination and harassment. This concept goes along perfectly with the addition of the clause “Engineers foster health and safety in the workplace” (Stakeholder V.c). The usage of the term “foster” implies that engineers must not only participate in healthy work environments, they must help create them. It is clear that this

extra focus on workplace culture helps to advance the Code's shift from ethical rules to ethical values that will more effectively than ever guide civil engineers to higher ethical statuses.

A noticeable part of fostering healthy workplace environments is the relationships between mentor and mentee professionals. While the 2017 version supports these relationships by stating that "Engineers should encourage their engineering employees to become registered at the earliest possible date...[and] encourage their engineering employees to attend and present papers at professional and technical society meetings" (Canon 7), the 2020 update expects more from engineering mentors. The new Code states that "Engineers encourage and enable the education and development of other engineers and prospective members of the profession" (Stakeholder V.f). To enable someone is not only to encourage them to succeed, but to be an active advisor on their path to success. This could mean helping other engineers find test-taking materials for the Professional Engineering exam, nominating another engineer's publication, or providing them with funds to attend conferences. Cheering from the sidelines is no longer the standard for engineering mentors. The 2020 Code now requires mentors to be much more hands-on in their involvement with other engineers' success, which will improve the quality of life for employees and therefore the population they are serving.

As technology expands, it is essential that engineers stay current with the ever-changing innovations and practices of the modern era. When the rapid production of a vaccine for COVID-19 in 2020 was made possible by technologies that hadn't existed even a year before, society saw just what can happen when researchers and industry professionals work together to serve the public. The changes to the Code of Ethics that same year reflect a similar sentiment. In the 2017 clause titled, "Engineers should keep current in their specialty fields..." (Canon 7), the Code lists resources like continuing education courses, professional seminars, and industry literature as the means for keeping up with new technologies. These mediums are still viable. However, the 2020 update shifts to a much larger focus on future technologies and the future needs of a community during project consideration. The clauses stating that engineers "consider the capabilities, limitations, and implications of current and emerging technologies" and "acknowledge the diverse historical, social, and cultural needs of the community" suggest that civil engineers must do more than build infrastructure with no thought of who and how it serves (Shareholder I.h). Actively participating in ethics is no longer simply about attending seminars; it's about considering the future of the community which an engineer serves.

The overarching responsibility of civil engineers is emphasized in both 2017 and 2020 Codes: the focus on quality of life. In 2017, the repeated phrase is "the quality of life for the general public." However, in 2020, the phrase most emphasized is "the quality of life for humanity." What is the difference between "humanity" and "the general public"? This means that engineers must consider the implications of their projects on a global scale, such as whether their project may be destructive to one community even while serving the general public, and

outlines a focus onto environmental and cultural sustainability. To back this statement, the Board added Stakeholder II to place the environment at a higher level of importance than the engineer's responsibility to their clients in Stakeholder IV. These are yet more examples of how the 2020 update to the ASCE Code of Ethics is holding engineers to a higher level of devotion to ethics: if civil engineers are given the charge of improving the welfare of the human race, they *must* include future generations and environmental impacts in their sphere of consideration, even before their loyalty to a corporate employer.

At the forefront of ethics is the concept of respect. In the 2017 version of the Code of Ethics, the word "respect" is only used once in the phrase "Engineers shall conduct themselves in a manner in which all persons are treated with dignity, respect, and fairness." The term gets more usage in 2020, where "respect(fully)" gets mentioned three times: in the Preamble, Stakeholder I, and Stakeholder V. This version also sees an addition to 2017's clause, reading: "Engineers treat all persons with respect, fairness, and dignity in a manner that fosters equitable participation without regard to personal identity" (Preamble). While the list of personal identities in Canon 8 are comprehensive, the 2020 version's broad statement of "personal identity" covers any cracks that might have existed in 2017's list. In this way, the concept of respect regardless of personal identity demands a higher level of internal ethics than adhering to a list of requirements.

Conclusion

The Code of Ethics' stark improvements will impact the engineering profession in myriad ways. The newest Code uses its upgraded structure to provide a clearer, more concise prioritized code of ethical conduct for ASCE members and engineers across the globe. Most notably, the formation of the updated Code now demands that civil engineers care more deeply about the success of humanity as a whole, the rejection of unfair practices, and the creation of workplace environments that are conducive to safety, mutual respect, and success. Newly adopted values concerning the environment means that those who benefit from civil engineering projects will now get to experience infrastructure that takes into account the natural world, the cultural needs of each community, and the wider population of the globe. Most of all, the 2020 version of the ASCE Code of Ethics forces engineers to adopt ethics as an inherent conviction to values, rather than adherence to a set of regulations.

References

- 1 Hoke, Tara (2020, December 1). *Part 1 of 2: ASCE's new code of ethics explained*. American Society of Civil Engineers. Retrieved January 17, 2022, from <https://www.asce.org/publications-and-news/civil-engineering-source/civil-engineering-magazine/issues/magazine-issue/article/2020/12/part-1-of-2-asces-new-code-of-ethics-explained>

- 2 *Code of Ethics*. ASCE American Society of Civil Engineers. (2020, October). Retrieved February 1, 2022, from <https://www.asce.org/career-growth/ethics/code-of-ethics>
- 3 *Code of ethics1 - asce.org*. ASCE American Society of Civil Engineers. (2017, July 29). Retrieved February 1, 2022, from <https://www.asce.org/-/media/asce-images-and-files/career-and-growth/ethics/documents/asce-code-ethics-july-2017.pdf>