



The Cost & Benefits of Implementing Envision

Survey Insights

SUMMARY



Executive Summary

In 2024, ISI undertook a comprehensive survey to better understand the real costs and benefits of applying the Envision framework on verified projects. Sixty-one project teams participated, providing practical, experience-based insights into both the cost and value of implementing Envision criteria; and the time and effort associated with ISI's third-party verification process. The goal was straightforward: to reduce uncertainty around cost impacts so that financial concerns no longer deter project teams from pursuing more sustainable, resilient, and equitable outcomes.

The two-part structured survey examined:

- 1. The cost and value of implementing Envision criteria
- 2. The time and effort associated with ISI's third-party verification process

The survey results show that sustainability does not inherently increase project costs, and that the verification process delivers clear value despite moderate time and effort requirements. Many project teams reported cost neutrality or slight increases, and even when cost increases occurred, they were commonly tied to expanded scope, such as enhanced resilience, improved community value, or long-term operational savings. Respondents consistently emphasized that early integration of Envision, consistent tools and processes, and intentional planning for verification are key practices that help maintain cost neutrality and strengthen outcomes.

Benefits extend beyond dollars and checklists. Respondents highlighted something more fundamental: applying Envision contributed to better communication, stronger collaboration, and more effective project management. In other words, sustainable projects don't just have better outcomes—they're well managed. Much like safety, sustainability provides the greatest value when treated as an integral part of delivering quality infrastructure, not an add-on.

These insights offer project owners and consultants a clearer path forward. The key takeaway is simple and encouraging: *when applied early and strategically, Envision delivers meaningful benefits without increasing budgets, positioning sustainability as a standard practice for high-performing infrastructure with community benefits.*



TABLE OF CONTENTS

Key Takeaways	3
Survey Context	4
The Cost-Benefit Paradox	5
Respondent Context	6
Implementation Cost Overview	7
Respondent Comments on Cost Perception	8
Value and Project Benefits	9
Implementation Best Practices	10
Verification Process Overview	11
Verification Cost Overview	12
Best Practices for Efficient Verification	15

Key Takeaways

Sustainability doesn't have to increase project cost.

Implementation costs are manageable; mostly neutral or slight increase.

Verification provides clear value.

Users see very clear value and benefits from the process – recognition, improved outcomes, community trust.

There is a learning curve.

Efficiency improves significantly with experience.

Context Matters.

Owner's sustainability maturity shapes perceived costs and value.

Start early, standardize processes, and build experience.

Tools and Resources

Applicants Course

Live virtual training that looks closely at Envision project verification, providing participants with an in-depth understanding of the tools, resources, and systems available to support a successful Envision verification process. Led by ISI, the course is designed for individuals ENV SPs preparing an application for project verification.

Offered quarterly, course participation fulfills five elective hours and two prescribed hours toward ENV SP credential maintenance. You need to log in to your ISI account to register.

The Guide to Envision

Verification for Applicants

includes important information for applicants, including current policies, procedures, submission tips, and pricing.

This resource is accessible through a free ISI account – located on the ISI account dashboard, under Resources > Verification Resources.



**Please reach out to ISI with questions about verification.
We want project teams to be successful!**

Survey Context

Survey Purpose and Goals

- **Evaluate and quantify the costs and benefits** of implementing the Envision framework on infrastructure projects.
- **Understand the true impact of Envision verification**, including required effort, financial costs, and added value.
- **Provide actionable insights** for project teams, infrastructure owners, and sustainability professionals looking to apply the Envision framework to infrastructure projects.

Survey Structure

59-question survey divided into two main parts:

Part 1: Evaluating IMPLEMENTATION Costs & Benefits

- Costs associated with applying Envision credits to projects.
- Benefits realized from sustainable practices and lessons learned.

Part 2: Evaluating VERIFICATION Costs & Benefits

- Time, resources, and financial expenses required for Envision verification.
- Perceived value and benefits of verification.



The Cost-Benefit Paradox

When talking about Envision and the value of sustainability, the question that often arises is “how much does it cost?”

This is a simple question with a complex answer.

The survey was conducted as a first step to try to understand cost in terms of benefits and value.

The bottom line from the survey:

- Sustainability doesn't have to increase the cost of the project.
- Even though there is a cost to the verification process, project teams indicate very clear value and benefits received from the process.

SURVEY LIMITATIONS

When reviewing survey data, note that this was a voluntary survey. Potentially due to the survey length, there were more responses in Part 1 than Part 2. Due to complexity of the topics and questions, and who may have responded, there was potential for misinterpretation of questions. In addition, a lot of respondents were new or newer to using Envision.

SURVEY THEMES

- There is a **steep learning curve** for Envision verification. Project teams learn a great deal from their first project, which can be applied to future projects to reduce the time and level of effort needed to submit a project for verification.
- Owners with **established sustainability requirements** (by policy, regulation, or law) often see Envision as having minimal incremental cost.
- Owners new to or **early in their sustainability journey** may perceive Envision as more costly and challenging, but also feel like they receive greater value.
- The **perceived value and cost** of Envision are strongly influenced by the owner's baseline sustainability expectations and prior experience.



Interpreting Survey Data

Voluntary & Opinion-Based Responses:

Responses reflect individual experiences, influenced by positive or negative perceptions.

Survey Complexity & Fatigue: Fewer and more varied responses in verification questions may indicate survey fatigue or sensitivity to sharing detailed information.

Potential Misinterpretations: Complexity in defining verification effort and costs may have led to inconsistent interpretations or aggregated responses from multiple projects.

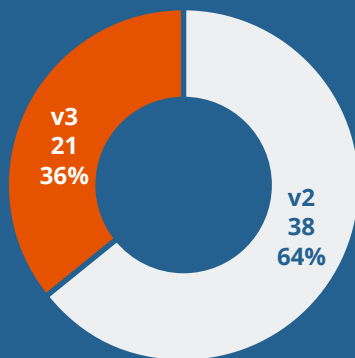
Learning Curve & Future Efficiency: Reported time and effort likely reflect initial learning experiences; respondents overwhelmingly expect improvements in future projects.

Respondent Context

Respondents were asked to complete surveys based on their experience working on an Envision verified project. There were 61 survey responses, with an overall completion rate of approximately 68%.

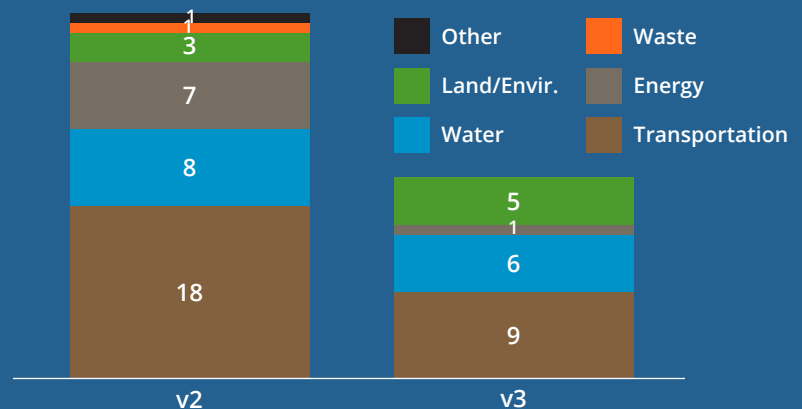
Although all data was aggregated as to not disclose individual results, a few classifying questions were asked to determine if responses showed any meaningful similarities or differences based on the version of Envision used, project sector, and/or level of experience.

Was the project verified using Envision version 2 or version 3?

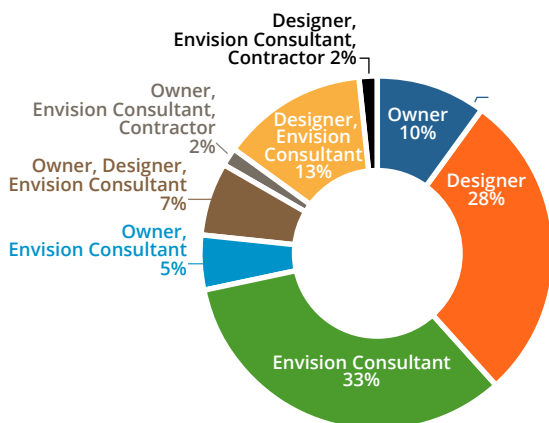


Envision version 2 (v2) published 2012, version 3 (v3) published 2018.

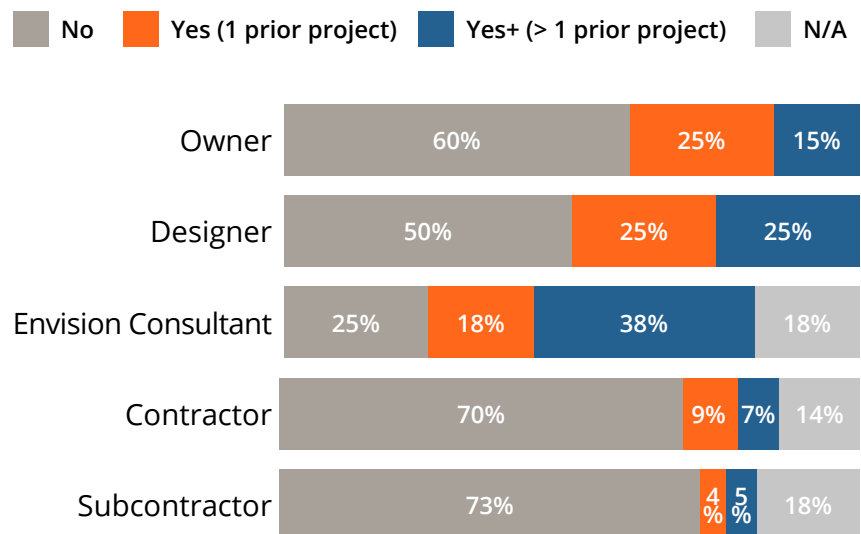
Verified Projects in the Survey Sample by Envision Version and Sector



Who led the Envision verification?



Did the project team have prior experience with Envision verification?



Implementation Cost Overview

KEY FINDINGS

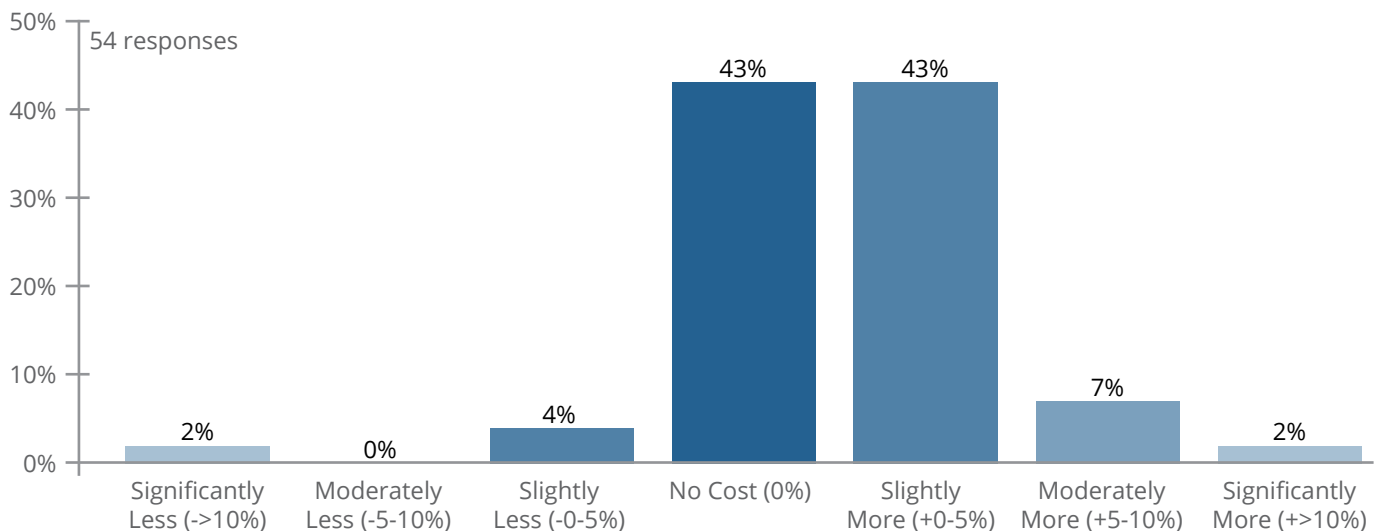
86% reported either **neutral** or **slight cost increases** (< 5%).

Less than 10% report moderate or significant cost increases.

84% report implementing **Envision** **added value** to the project.

60% report the added **value outweighed** added costs.

Was the cost of implementing Envision credits more or less than a conventional project?

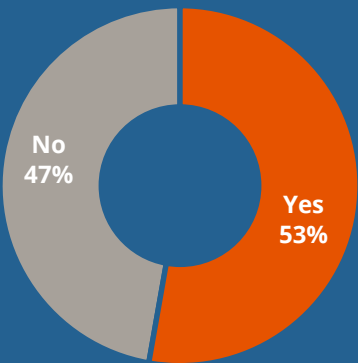


Percentages rounded to whole numbers for readability; totals may differ by ±1% due to rounding.

Implementation Cost Overview

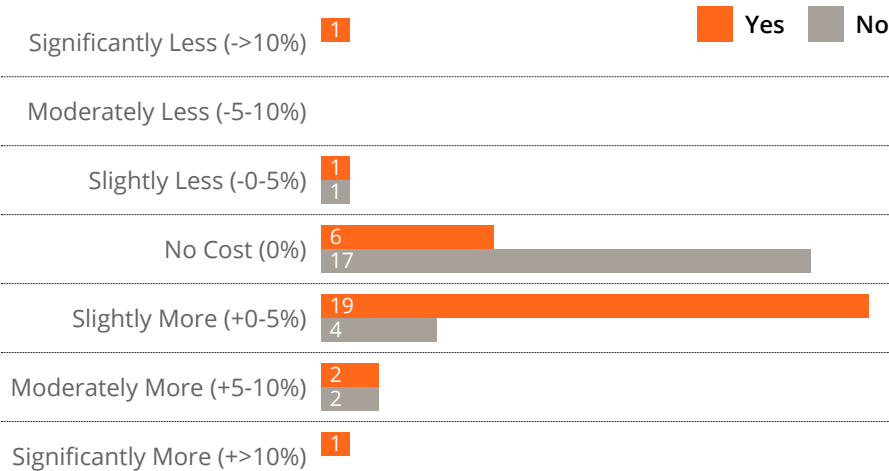
There was a clear trend that *those who voluntarily used Envision are more likely to say there was no added cost.* Those who were required to use Envision were more likely to say there was a slight cost increase.

Was Envision verification a requirement?



Was Envision verification a requirement? (by cost response)

54 responses



Respondent Comments on Cost Perception

*"If properly designed and managed, **implementing Envision credits adds value and saves cost for the projects long-term** in most cases. So, worst case, I would say it's a break even."*

*"It is also challenging to differentiate between things we would have done with or without Envision as **they were so intertwined.**"*

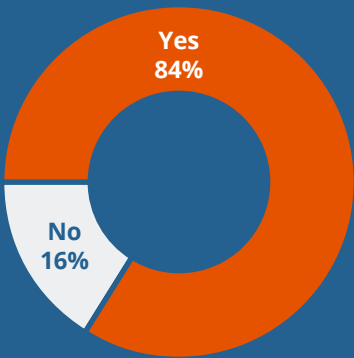
*"The design team and owner were **planning on implementing the items that led to the Envision verification.**"*

Value and Project Benefits

Most people indicated that implementing Envision adds value and saves cost in the long term. There is a perception of higher capital costs, but lower overall costs when factoring in operations and maintenance. It is often challenging to differentiate which costs are related to Envision from those that are not, with some project teams noting that the sustainability considerations would have been included in the project whether or not Envision was used.

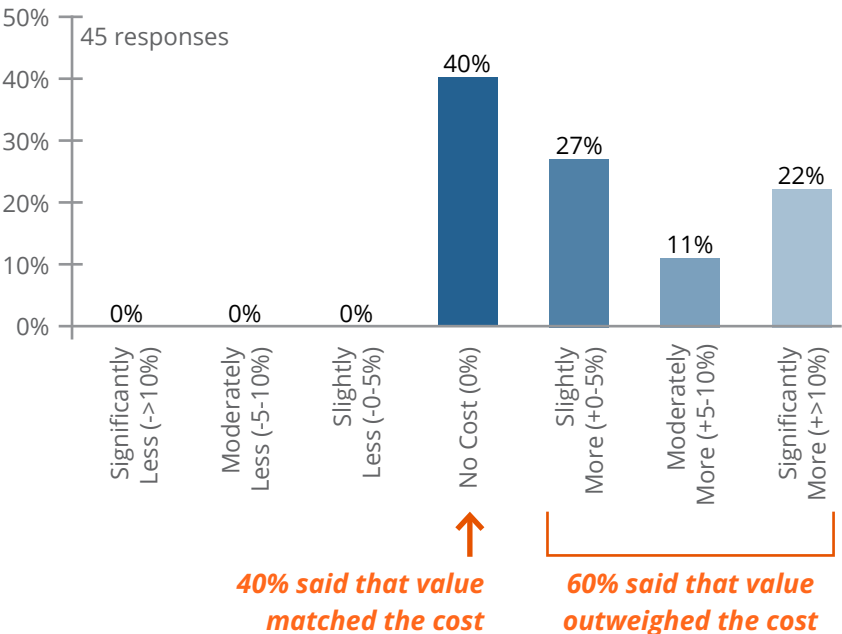
When asked if implementing Envision added value, the response was overwhelmingly yes.

Did implementing Envision add value to the project?



Overall Envision provides a good return on investment for projects.

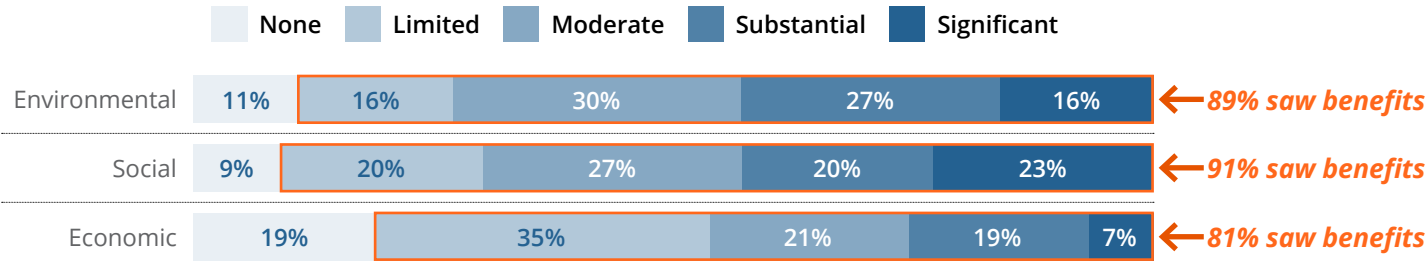
To what degree did any added value of implementing Envision credits outweigh any additional cost?



Percentages rounded to whole numbers for readability; totals may differ by ±1% due to rounding.

Rate the sustainability benefits to the project as a result of implementing Envision.

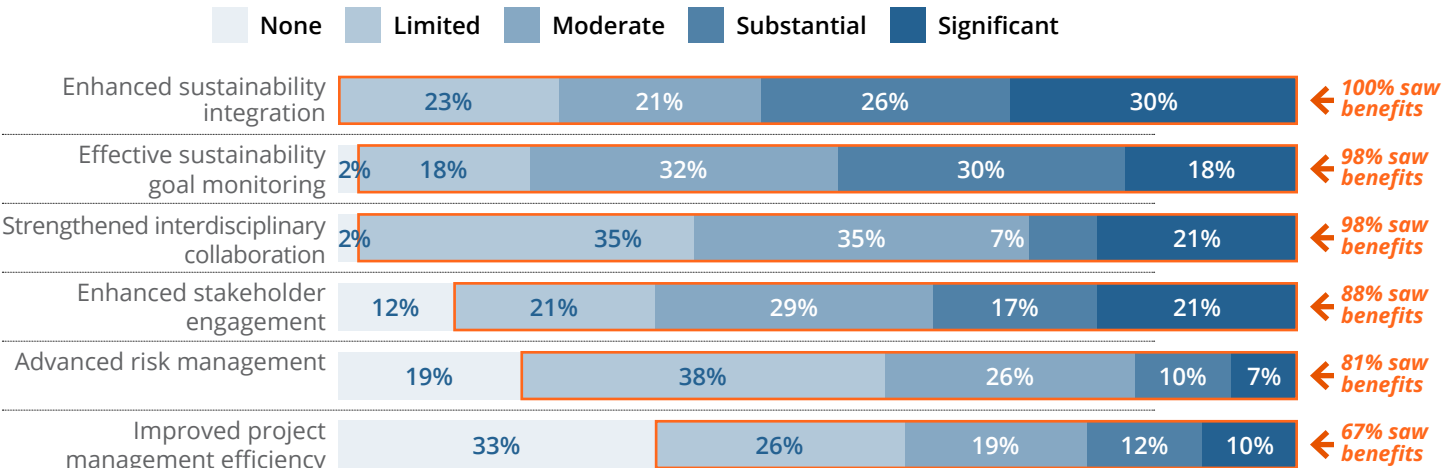
44 responses



Value and Project Benefits

Rate the significance of the project benefits resulting from Envision.

43 responses



Percentages rounded to whole numbers for readability; totals may differ by ±1% due to rounding.

Survey feedback confirms that Envision is performing as intended and having the expected impact.

Implementation Best Practices

KEY FINDINGS

Early Integration:

Apply Envision in initial planning and design phases to optimize impact.

Multidisciplinary Teams:

Involve diverse teams (designers, contractors, sustainability experts) early and continuously.

Effective Communication:

Clearly articulate sustainability goals to all stakeholders early

Consistency & Standardization:

Make Envision principles a standard practice rather than a stand-alone effort

Verification Process Overview

Project teams may choose to pursue Envision verification during the project's design phase, or once it is constructed. There are two verification pathways to choose from which are outlined below.

Projects that use **Pathway A** may submit for verification any time at or after 95% design completion, in other words, after all major design decisions have been made. Projects pursuing Pathway A are required to complete a post-construction review to confirm that commitments made during project planning and design were carried through construction. Projects pursuing Pathway A may achieve an Envision verification after undergoing a thorough iterative design review. The post-construction review is required to maintain the verification level designated after the design review(s).

Projects that select **Pathway B** may submit for verification any time at or after 95% construction completion, up until the project has been operational for three (3) years. Projects pursuing Pathway B may achieve an Envision verification after undergoing a thorough iterative post-construction review. No subsequent follow-up reviews are required for projects that achieve verification using Pathway B.

Pathway A: Design + Post-Construction: > 95% Design



Pathway B: Post-Construction: > 95% Construction



ISI acknowledges that the verification process is not simple or quick. It is a rigorous and time-intensive process. While the level of detail is intentional, survey results indicate that time spent preparing the submission is greater than anticipated.

In approaching Envision version 4, a key goal for ISI and the Envision Review Board (ERB) will be to find ways to improve efficiency of the documentation process and reduce the time commitment without lowering the standard, key outcomes, and the quality of deliverables. The goal is to **make verification accessible and more inclusive**; and it is understood that the high level of effort indicated in the survey may exclude smaller projects.



Verification Cost Overview

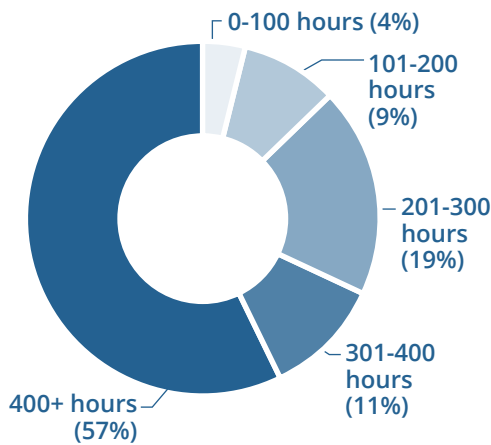
KEY FINDINGS

Respondents reported wide variations in documentation time and cost suggesting a **learning curve**.

Time and cost generally reduced with prior experience and **streamlined internal processes**.

There is significant **opportunity to gain efficiency** as teams become more familiar with Envision.

Estimated Range of Time Needed for Verification Effort

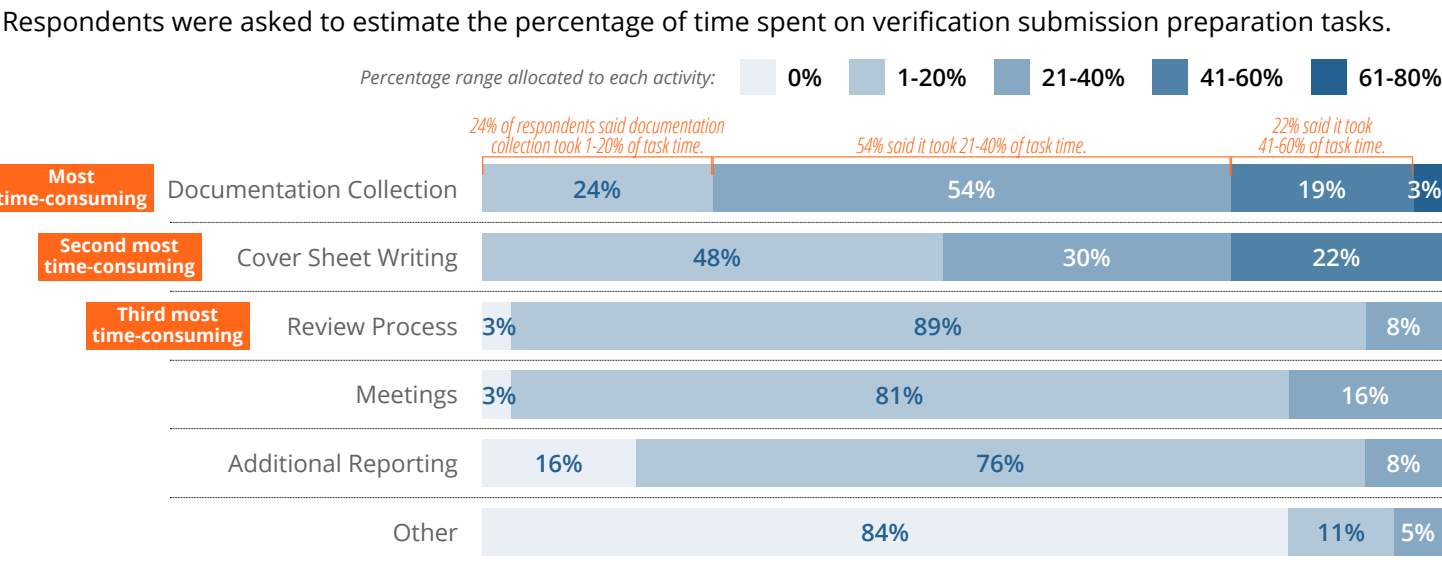


Respondents noted wide variations in the time required to prepare verification submission documents. This could be due to the projects being larger or more complex, or because project teams are targeting higher verification levels.

Data did not show a clear correlation of project size to level of effort. This may be due to the learning curve associated with Envision submissions.

The number of hours for verification preparation shows that there is no strong relationship between the length of the verification preparation timeline and the total hours of the verification effort. Some projects take years to submit, and the active work may be intermittent.

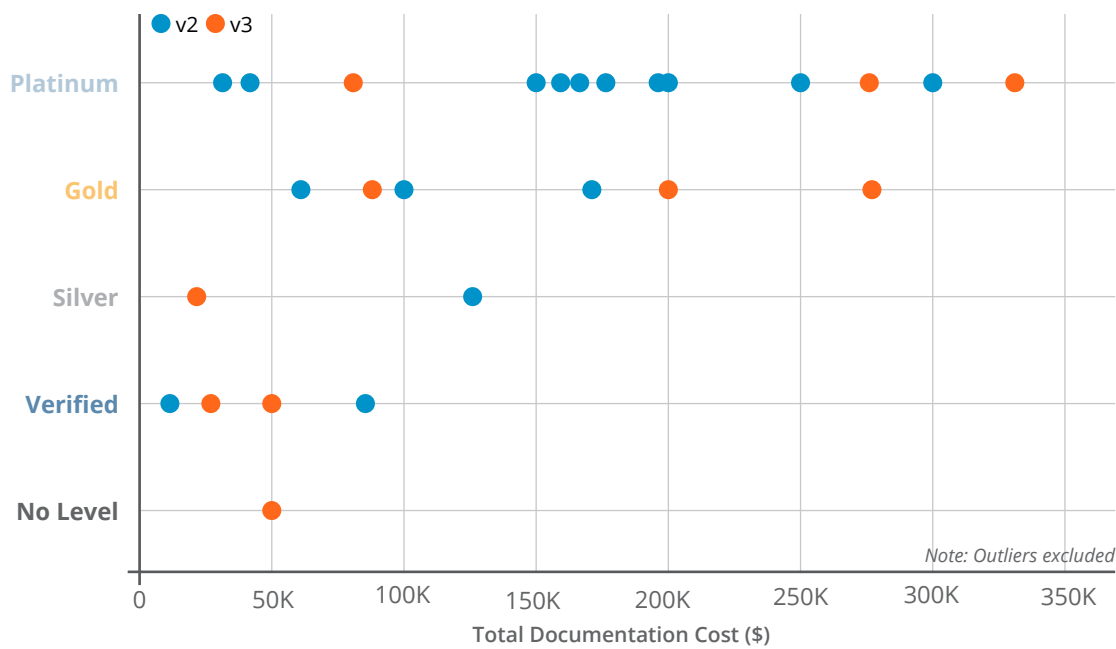
How was the time allocated for activities related to Envision verification?



Percentages rounded to whole numbers for readability; totals may differ by ±1% due to rounding.

Verification Cost Overview

Total Verification Documentation Cost By Verification Level



Data shows a loose correlation between documentation costs and verification levels. This does not inherently mean that Envision Platinum projects take more effort, but they show a wider range of costs. This may be due to efficiencies gained by project teams that have put many projects through verification.

KEY FINDINGS

The average cost of documentation preparation and submission for Envision verification was \$123,032.

The average project spends about 0.36% of its total project cost on Envision verification efforts.

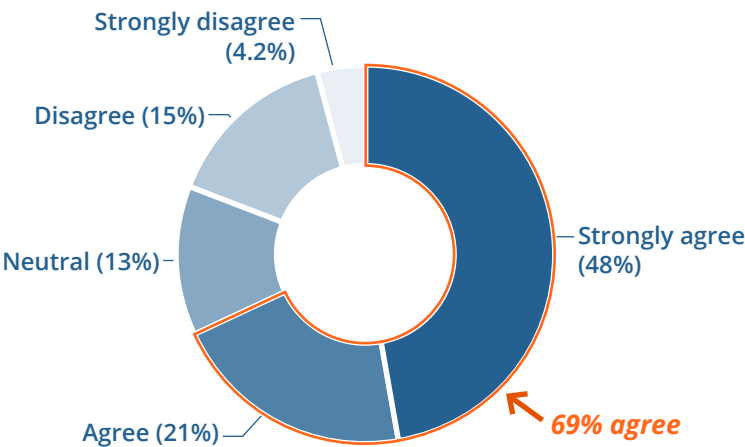
Higher-achieving projects tend to spend more time and money on Envision verification efforts.



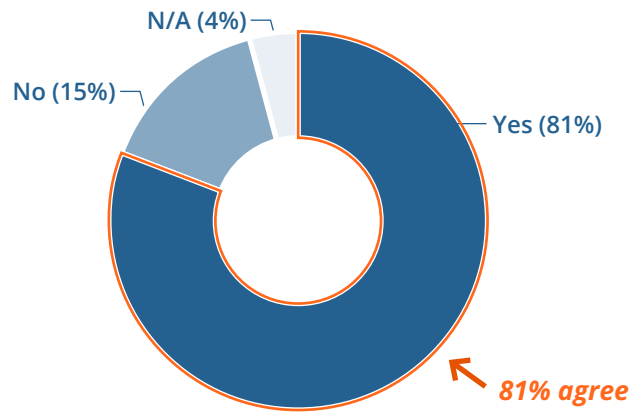
Clear communication matters.
Even though actual Envision costs may be considered a “rounding error” on large projects, perceived costs can still create ‘sticker shock,’ making it essential for teams to highlight the value of integrating sustainability and justify what may appear to be an extra cost.

Verification Cost Overview

Would the cost of verification decrease if Envision was applied earlier?



Would the cost of verification decrease if Envision was applied programmatically?



Percentages rounded to whole numbers for readability; totals may differ by ±1% due to rounding.

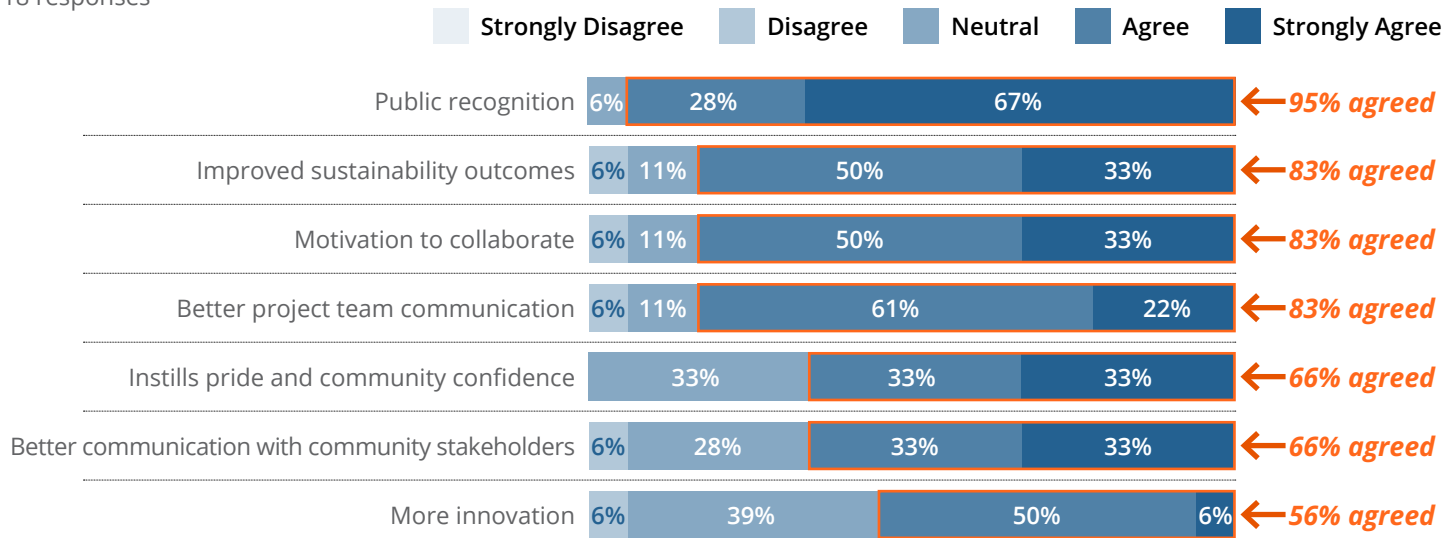
Survey respondents overwhelmingly agreed that if they had used Envision earlier, they could have done the verification preparation faster and more efficiently. They also indicated that applying Envision programmatically would provide notable efficiencies. **The majority of respondents reported that they expect to apply Envision more efficiently on their next project.**

Beyond simply using Envision, the requirement to provide evidence for third-party review leads project teams to be more rigorous and attentive than in self-assessments.

Accountability drives better documentation and stronger project performance.

Rate the Envision verification benefits

18 responses



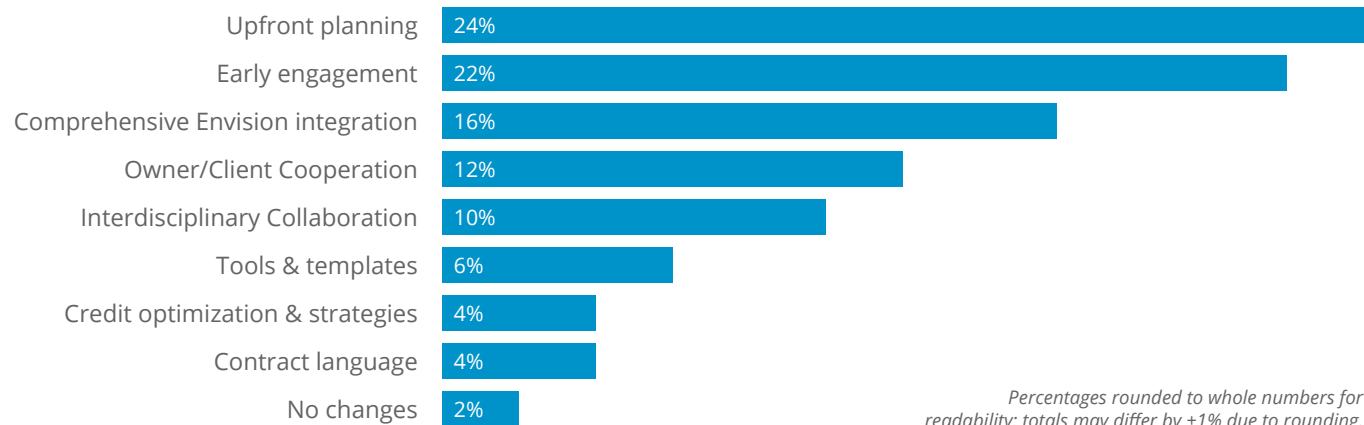
Percentages rounded to whole numbers for readability; totals may differ by ±1% due to rounding.

Verification Cost Overview

One of the most significant take-aways from project teams is the need for early planning. After going through the verification process, Envision professionals consistently emphasize the need to be strategic and intentional, identifying which credits to pursue, at what level of achievement, and the documentation required and available to support them. Early clarity on credit strategy and documentation availability greatly reduces effort and improves verification outcomes.

What would you do differently on a future Envision project?

34 responses



Percentages rounded to whole numbers for readability; totals may differ by ±1% due to rounding.

Best Practices for Efficient Verification

KEY FINDINGS

Early Preparation:

Begin documentation as early as possible.
Have a plan.

Clear Documentation Protocols:

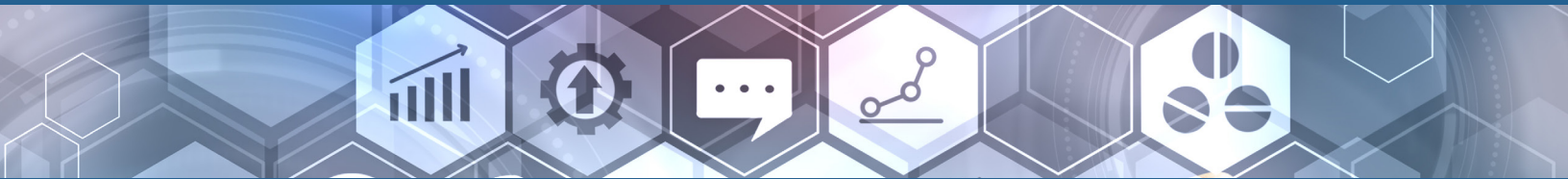
Standardize methods for document collection, organization, and submission.

Effective Team Coordination:

Regular verification-specific meetings and clear role definitions.

Proactive ISI Communication:

Early discussions with ISI for clarity on verification requirements.





The Institute for Sustainable Infrastructure is an education and research nonprofit (a 501c3) based in Washington DC. It was established in 2010 by the American Public Works Association (APWA), the American Society of Civil Engineers (ASCE), and the American Council of Engineering Companies (ACEC). Responding to the need for a comprehensive sustainability framework and rating system suitable for use in civil infrastructure development, ISI collaborated with the then Zofnass Program for Sustainable Infrastructure at the Harvard University Graduate School of Design to develop Envision.

Envision is a holistic sustainability framework and rating system that guides and assesses the sustainability and resilience of all types of infrastructure. It is a comprehensive tool created to assist agencies, municipalities, consultants, contractors, and operators, in planning, designing, and delivering more sustainable infrastructure projects. The Envision framework is a decision-making tool that allows project teams to evaluate projects across a broad range of sustainability indicators, or “credits,” that address environmental, social, and economic dimensions of sustainability to encourage systemic change. At its core, Envision is about supporting higher performance through better choices in infrastructure development.



The Zofnass Research Program conducts research that examines sustainable infrastructure topics and supports development and use of the Envision Sustainable Infrastructure Framework. The program was originally developed in 2007 at the Harvard University Graduate School of Design, where it was called the Zofnass Program for Sustainable Infrastructure, named after its benefactors Paul and Joan Zofnass.

After its founding in 2010, ISI worked closely with the Zofnass program to integrate the best of industry experience with cutting-edge academic research to develop and release Envision in 2012. This achievement responded directly to the need for a comprehensive sustainability framework and rating system suitable for use in civil infrastructure development. In 2022, the program moved from Harvard to ISI, where it is now called the Zofnass Research Program, so that it could more readily engage with the private sector and evolve to serve the diverse needs of the AEC industry.

SUSTAINABLE INFRASTRUCTURE ADVISORY BOARD

The Sustainable Infrastructure Advisory Board (SIAB) is a dedicated group of AEC firms that support the Zofnass Research Program. Their financial assistance, expert feedback, and guidance are integral to the development, promotion, and continued improvement of the Envision framework. Representatives from these firms, which are involved in the planning, designing, and engineering of infrastructure projects, engage with researchers to provide guidance and insight from the infrastructure industry. We are grateful for the SIAB's commitment to sustainable infrastructure and ongoing advocacy of Envision.

The SIAB plays a vital role in shaping the future of sustainable infrastructure by providing strategic input, financial support, and thought leadership. In an era where public discourse centers on combatting climate change, meeting sustainability and resiliency goals is paramount for governments, corporations, and AEC firms alike. As a member, you will be at the forefront of innovative research and developments in sustainable infrastructure, enabling your organization to lead in this critical field.

For more information, visit sustainableinfrastructure.org/