Australian Institute of Architects

NATIONAL NOVATION SURVEY FULL REPORT

May 2023

Prepared by the Australian Institute of Architects 2023

ABOUT THE INSTITUTE

The Australian Institute of Architects (Institute) is the peak body for the architectural profession in Australia. It is an independent, national member organisation with more than 13,500 members across Australia and overseas.

The Institute exists to advance the interests of members, their professional standards and contemporary practice, and expand and advocate the value of architects and architecture to the sustainable growth of our communities, economy and culture.

The Institute actively works to maintain and improve the quality of our built environment by promoting better, responsible and environmental design.

PURPOSE

- This report has been prepared as an initiative of the Australian Institute of Architects (the Institute) to establish a robust evidence base about the impacts of novated design and construct procurement and thereby guide the Institute's strategic responses, including advocacy, to address its members' concerns.
- At the time of this publication the National President is Shannon Battison FRAIA.
- The Acting Chief Executive Officer is Barry Whitmore.
- The Institute acknowledges the valued work and expert contributions, of those members who comprise our Victorian Chapter's Large Practice Forum, that has enabled this submission to be prepared.

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FOREWORD

Architects are the major profession responsible for the design of our built environment. With this role comes an inherent responsibility to design buildings that not only support the people who will live, work and play in and around them, but also support a climate in crisis. This is a vital role to play, and one that can only be done when architects are allowed to participate fully in the life of a project from inception to post occupancy.

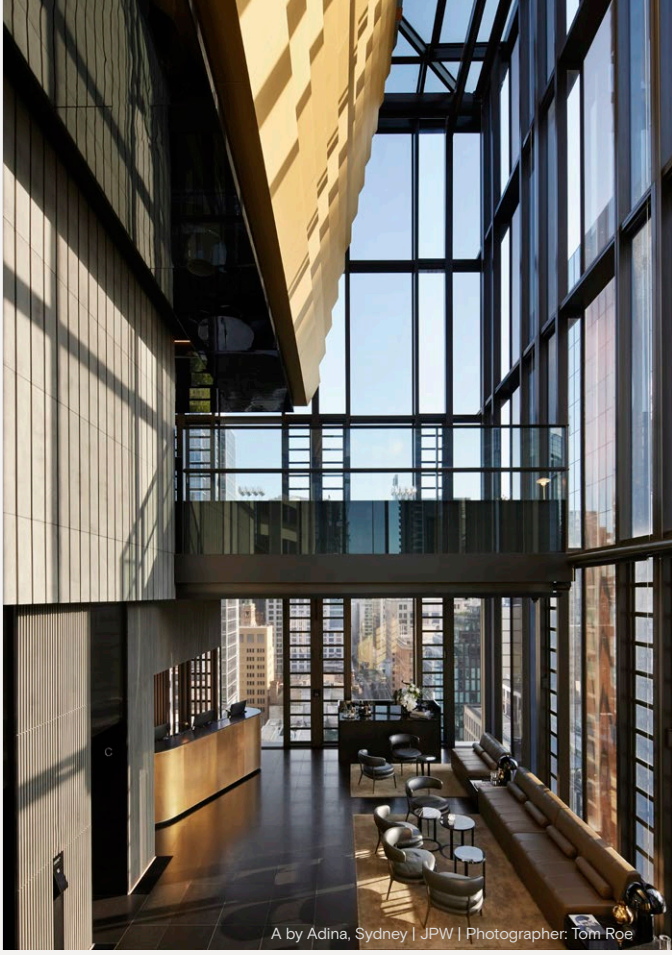
The National Novation Survey Findings show that during the construction phase of a novated design and construct project, architects are being severely impeded in their professional responsibilities.

This report is the largest and most comprehensive piece of research completed by the Institute in the past decade. I am proud that this research has involved an extraordinarily large sample of 484 novated design and construct projects undertaken by 266 member architect practices. This is substantial when compared to 774 building approvals issued nationally in 2018-19 for new apartments of three or more storeys and the 868 approvals for new offices in 2019.

Furthermore, the research was comprehensive in both its interrogation and reporting. The Institute has thematically coded and reported more than 1,200 open ended comments from 266 members and described and analysed more than 22,000 responses to closed-ended questions in the survey of 484 projects. The findings speak for themselves, and the lessons are clear.

On one hand our members, as the lead consultants in the design and delivery of buildings, perceive some benefits from novated design and construct procurement. These benefits tend to sit with the business side of building procurement such as time and efficiency benefits, buildability and other relationship, financial and commercial benefits.

It is vital to note, however, that the findings also show there are a concerning range of perceived challenges impacting building outcomes and matters that should be of concern for all governments delivering building reform and for end-consumers such as apartments' owners. These include design control/ integrity, independence and compliance, quality and end-user satisfaction and communication/ relationship with the original client. This is a matter of clear public interest.



A by Adina, Sydney | JPW | Photographer: Tom Roe

The most profound and problematic findings come from the survey of the 484 projects. All clients, including government, should pay careful attention to the risks highlighted within the report.

At the outset of almost two-thirds of projects, practices were not aware that their consultant's contract would be novated at the time they submitted their fee (tender). This means that fees have been calculated on an inaccurate scope of services, noting that the procurement method heavily impacts the nature of the services required to deliver a quality outcome.

In more than two-fifths of projects practices did not even know the other consultants' scopes of work making it impossible to accurately determine their own scope of work for the project. In fact, in well over a quarter of projects, practices did not have access to the Principal's Project Requirements (PPR) prior to novation. There is a dramatic reduction in architectural practices being included in strategic decision-making processes at Project Control Group meetings after novation. Less than one quarter of practices were always or often included after novation. The result is architects and other consultants being left uninformed, highly disempowered, and very often left out of important conversations that impact the final built result.

Less than two-fifths of projects saw practices involved in all or most discussions about value management. These discussions are where critical decisions are made that involve design, construction details, and materials substitution. In three-quarters of projects contractors had applied undue pressure for approval during sample reviews or substitutions. Unsurprisingly, more than half of projects saw anything from over a quarter to all of finishes and fixtures changed from the original tender after novation. There is little doubt that what is designed is most often not what is actually delivered. It should be of great concern if this is the accepted standard for building procurement in a developed nation such as Australia.

In more than one-quarter of projects practices felt they could not effectively protect the original principal's interest. This is not surprising when only one third of projects used a novation deed which allowed the architect to contact the principal or principal's representative if there was a significant departure from the brief. Furthermore, in more than a quarter of projects architects' access to sites was compromised, with no regard to free access to the site.

For more than one third of projects, there was both undue pressure or influence in the preparation of monthly reports and likewise in the issuing of monthly certificates. Censoring of reports passed on to the client was more likely, the less often the reports were passed on.

It is imperative that in our current hybridised system of design and construction regulation in Australia, across eight states' and territories' governments as well as national government, that we stop the constant passing of responsibility down the line.

Governments have two major opportunities to bring about change. The first is the re-regulation currently being delivered through disparate programs of building reform across Australia.

The Institute has released its own Code of Novation last year and we strongly encourage governments consider putting the code, or many of its elements that promote better building quality outcomes into regulation.

The second opportunity is for state governments to lead through setting a clear example by being model clients themselves. Governments, especially state and territory governments, are the single largest procurer of buildings in most states and territories.

It is essential that where governments use novated design and construct procurement that the Institute's Code of Novation is adopted and that government departments and agencies as clients heed the disturbing findings of this report to protect both the interest of themselves and the wider public.

Any government relying largely upon unlimited liability clauses and professional indemnity insurances to manage procured building quality and prevent risk are relying on residual risk mechanisms. Essentially, their approach to managing risk is to deal with problems after they have become manifest.

The findings of this report instead indicate that there is an enormous opportunity for governments to address building quality and prevent risk through the procurement process and critically during the construction phase of the building.

I commend the Institute, particularly members of the Victorian Chapter Council and the Victorian Large Practice Forum and the National Policy and Advocacy Team. Their efforts, diligence and persistence over the past five years since 2018 for the conception, undertaking and reporting of this seminal piece of industry research is evident in this report.

I thank the 266 member practices who participated and their directors or principals who took the extensive time that was required, especially to complete the exhaustive project survey questionnaire. Some members generously did this for up to three projects.

I urge the many stakeholders to this report, especially state and territory governments, to heed the systematically gathered evidence and act upon these findings.

Shannon Battisson FRAIA
National President

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AB House | Office MI–JI | Photographer: Ben Hosking

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

1.1.1 Background

In April 2018 the Building Ministers' Forum released its expert assessment of the effectiveness of compliance and enforcement systems for the building and construction industry.[1]

The report, *Building Confidence*, and also eponymously known as the *Shergold-Weir* report in reference to its authors, acknowledged that in relation to multi-storey residential dwellings that, novated design-and-construct procurement could ultimately lead to a *significant difference between the as-designed building documentation and the as-built building* (see side panel).

The Building Confidence report, stated that five of its recommendations (Recommendations 13 to 17) are *for improvements to the quality of documentation and to increased controls over design-and-construct approaches to building*. These are:

- **Recommendation 13:** That each jurisdiction requires building approval documentation to be prepared by appropriate categories of registered practitioners, demonstrating that the proposed building complies with the National Construction Code.
- **Recommendation 14:** That each jurisdiction sets out the information which must be included in performance solutions, specifying in occupancy certificates the circumstances in which performance solutions have been used and for what purpose.
- **Recommendation 15:** That each jurisdiction provides a transparent and robust process for the approval of performance solutions for constructed building work.
- **Recommendation 16:** That each jurisdiction provides for a building compliance process which incorporates clear obligations for the approval of amended documentation by the appointed building surveyor throughout a project.
- **Recommendation 17:** That each jurisdiction requires genuine independent third party review for specified components of designs and/ or certain types of buildings.

NOVATED DESIGN-AND-CONSTRUCT PROCUREMENT BUILDING CONFIDENCE REPORT

Contractual arrangements for multi-storey projects differ, but commonly developers engage a builder to undertake a design-and-construct project. This means the builder is responsible both for the development of the design and the construction of the building. Whilst the developer might initially engage architects and engineers to prepare early designs to obtain planning approvals, these consultants then become subcontractors. It is the builder who is responsible for the delivery of a completed building at an agreed price. Once contracted, the builder will work to find efficiencies and cost savings in the development of the design and construction of the building.

A significant percentage of apartments are sold off the plan to fund the development. However, purchasers of apartments have no rights to oversee the construction phase of the project. They must rely on the regulatory controls and competence of practitioners to deliver a compliant, safe building. Although building approvals are required, the nature of a design-and-construct project means that many aspects of the design change after the initial approval is obtained. This often leads to just-in-time supply of documentation and squeezes the compliance checking processes.

Staged building approvals are contemplated in most building approvals systems. They are intended to allow for ongoing approvals as the design is developed and before work commences. However, regulatory controls over this process are often very limited. As a consequence, there is often a significant difference between the as-designed building documentation and the as-built building. (p.10)

1 Building Ministers' Forum 27 April 2018 – Communiqué https://www.industry.gov.au/news/building-ministers-forum-communique-april-2018

Novation in the development and construction market in Australia

Novated design and construct procurement has been established in Victoria and NSW for many years, especially in the two major capital cities and their urban surrounds. It is a method that the market has embraced to deliver large scale multi-storeys residential and commercial buildings. It is now emerging as the preferred procurement method of governments such as the Victorian Government for much of its building procurement.

From a developer's and financiers' perspective novated design-and-construct procurement responds to the time and cost pressures necessary to market and deliver body corporate (multi-owner) off-the-plan developments. This 'certainty' factor also flows through to the constructor who needs to ensure that the building is delivered to a specified contracted price that developers and financers need to have determined as early as possible in a project.

1.1.2 The Institute's early engagement with the situation.

However, in reference to the time, cost and quality triangle, members of the Institute's Victorian Chapter were not satisfied that Recommendations 13-17 of the Building Confidence Report, on their own, could bring about the required changes to design-and-construct procurement that would strengthen quality.

As well as regulated changes, Institute members sought cultural and practical on-the-ground changes. This needs to be reinforced by the terms of contracts and deeds of novation in order to re-balance or recalibrate novated design and construct procurement towards the enhancement of quality.

The Institute and its members also recognised that failure by the market or construction sector to embrace change could, with further building failures, force governments to outlaw the procurement methodology amongst certain classes, typologies or end-user markets. It was therefore regarded as critical to have industry led solutions and not rely upon government regulation alone.

Institute members were able to talk about the benefits and dis-benefits of novation from individual experiences. This included overall developer project practices, contract terms, authorities and settings for novated design and construct procurement that they regarded as problematic and, therefore, needed to change.

Members of the Victorian Chapter Large Practice Forum and the Institute's Policy and Advocacy unit determined that a leading part of the change solution should be an Industry Code of Novation. The code would be a multilaterally agreed upon position for the required behaviours and settings to deliver:

- the general benefits of novated design and construct procurement,
- high quality and compliant buildings,
- sustainable market practices, and
- equitably shared risk and financial viability for all parties.

However, the development of a Code of Novation required a greater body of evidence to prioritise and refine the elements of a Code. Beyond the important evidence of individual experiences, there was no systematically gathered body of evidence. Hence a national survey of projects was undertaken.

1.2 UNDERTAKING THE NATIONAL NOVATION SURVEY

In April 2019 the Institute released its Novation Survey to all members. The survey had two major parts.

Part 1 of the survey sought to gain a subjective appreciation of novation by seeking general perceptions and experience of novation from Institute members. This included the opportunity to provide three open-ended comments about the perceived benefits and three open-ended comments about the perceived challenges of novation.

Part 2 aimed to gain a more objective understanding of the delivery or architecture services and impacts through a retrospective report on up to three recently undertaken projects which had used design and construct procurement. Practices were asked to complete a separate survey for each of the three[2] project examples they chose to use.

Each 46 question survey completed comprised 36 main questions with a further 10 sub-questions. These were closed-ended response questions.

There were 266 respondents to the entire survey who responded fully or partially to both Part 1 and Part 2.

Nationally, there was a mix of small, medium and large practices. While the single largest group were small practices of up to 10 employees, comprising 30% of survey respondents, large practices who engaged over 51 employees comprised approximately two-fifths (39.30%) of the sample of respondents.

A more qualitative dimension to Part 1 was the opportunity to provide open-ended comments about the perceived benefits and challenges of novation. A total of 1,229 comments were received comprising 551 comments about the benefits[3] and 678 comments about the challenges of novation.

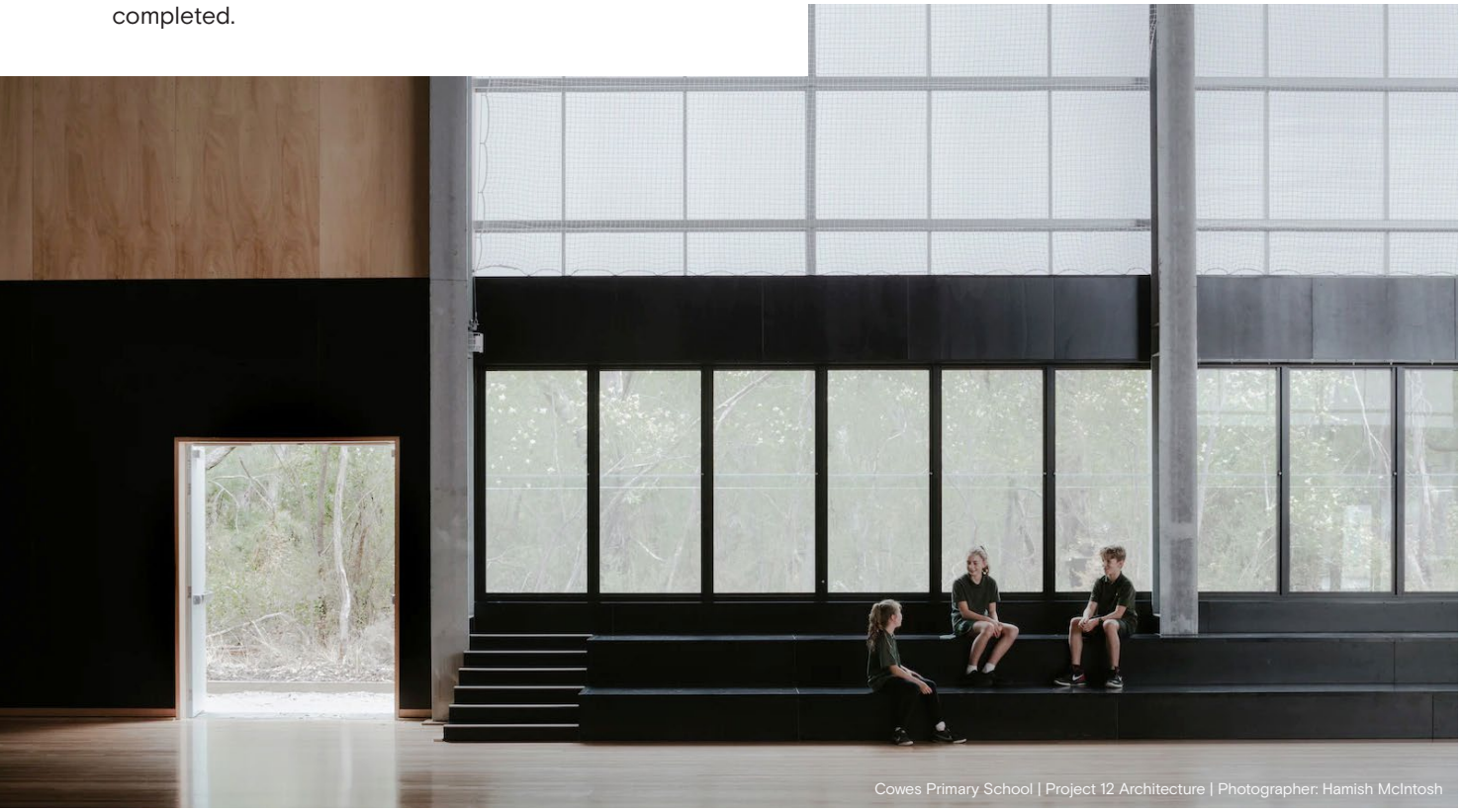
In Part 2, respondents provided complete or partial responses for a maximum of 484 project examples. Of 266 respondents to any of Part 1 or Part 2 of the Novation Survey, 29 did not attempt a first project example. Therefore, only 237 of 266 practices responded with information in relation to one or more project examples. Two fifths (40.1%) of these 237 respondents attempted to provide information for three project examples.

In the interests of transparent reporting, it should be noted that no one question had a denominator of 484. The majority of project example surveys were not fully completed.

Analysis of completions of the thirty-six main questions only, shows that:

- 'most' questions (an arbitrary 32 or more) were answered for 408 project examples.
- 'almost all' questions (an arbitrary 35 or 36) were responded for 393 project examples.
- 'all' questions (36) were responded for 361 project examples.

On this basis it is reasonable to conclude that substantial data was obtained for 408 project examples. To place this number of novated design and construct projects in some further perspective, more than half of the reported projects were either residential (32.97%) or commercial (21.04%). In the 2018-19 year in Australia a total of 772 building approvals were issued for new apartments of 3 or more storeys[4] and in 2019[5], there were 868 new offices buildings approved of value $1mi or greater. Of these 190 were of value $5mi or greater[6]. Compared to these 1,640 approvals, this industry research has substantial data obtained from 408 novated design and construct projects across Australia. This could be considered a sufficiently sized representative sample as a basis for the findings to be judged as robust.



Cowes Primary School | Project 12 Architecture | Photographer: Hamish McIntosh

3 It should be noted that a further 22 comments were received about benefits which were essentially either highly critical of novation or simply stated no benefits or none, which added to the above means that a total of 1251 comments were received.

4 Australian Bureau of Statistics. ABS.Stat. Beta datacubes. Building Approvals by Local Government Area (LGA 2018). https://stat.data.abs.gov.au//Index.aspx

5 It was not possible to extract these two data items for identical time periods

6 Australian Bureau of Statistics. ABS.Stat. Beta datacubes. Building Approvals by Greater Capital Cities Statistical Area and Above (GCCSA). https://stat.data.abs.gov.au//Index.aspx

1.3 KEY FINDINGS.

1.3.1 Novation experience

- In the ten years from 2009 to 2019, almost 58% of practices had derived 50% or more of their revenue through a novated design and construct contract that had been novated.
- Almost three quarters (72.69%) of practices believed that the optimum point of novation occurs at very late design development (>91% DD) or later.
- A large proportion of practices also felt that novation negatively impacted quality outcomes. For example, more than three-quarters of practices believed there was a negative impact on finish and durability and on aesthetics and design.
- Most practices (89.19%) supported the proposal that an industry-wide Code of Novation would be beneficial in improving the quality of projects delivered through novation.

1.3.2 Novation comment – perceived benefits and challenges.

- 551 comments were made about the benefits of novation. The top three themes resulting from the open-ended benefits comments findings by percentage of practices included:
  - Time and Efficiency - 40.60%
  - Buildability - 36.84%
  - Relationship and Financial /Commercial - both 28.20%.
- 678 comments were made about the challenges of novation. The top three themes resulting from the open-ended challenges comments findings by percentage of practices included:
  - design control/ integrity, independence and compliance - 57.89%
  - quality and end-user satisfaction - 46.99%
  - communication / relationship with the original client – 31.20%.

1.3.3 Reported projects sample summary.

- Projects were predominantly from the private sector (63.8%), followed by government (24%) and institutional clients (13.2%).
- The largest proportion of project examples reported were those which had taken place in Victoria (35%) followed by New South Wales (32.8%).
- The single largest group representing almost one third (33%) of projects were those categorized by practices as ‘Residential’. The next largest group was commercial (21%).

1.3.4 Summary of key findings from the survey of 484 projects

- For 62.2% of projects, practices were not aware that the contract would be novated at the time they submitted their fee (tender).
- For (35.73%) of projects, practices did not know at which stage of design/documentation the projects would be novated.
- For somewhat more than one third (36.9%) of projects, practices had not been provided with an overall project program or timeline to completion of construction on which to base their fee.
- For 44.1% of projects, practices had not been provided with a Total Cost of Construction budget in association with the brief when they had submitted their fee with the original client for the project.
- In closer to half of projects (44.5%), practices were not provided access and ability to provide strategic advice on the cost plan when working with the original client in developing the design. This raises the question of how practices can act as a trusted adviser for critical project elements.
- In more than two thirds (68%) of projects, the major engineering sub-consultants were not engaged by the architects.
- In more than one quarter of projects (27.2%) the (architect’s) contract terms and conditions (Ts & Cs) changed substantially at novation. This comprised 15.1% of projects, where only minimal transfer of Ts & Cs occurred being either a few Ts & Cs (8.5%) or none (6.6%). In a further 12.06% of projects, an entirely new contract was provided.

1. EXECUTIVE SUMMARY

- For more than half of the projects (56.6%), practices were not provided with the Total Cost of Construction (TCC) for the successful tenderer, and for a further 6.2% of projects, practices were provided with an incorrect amount. For more than one third (34.1%) of projects, the TCC was higher.
- Practices were more likely to be in involved in discussions about value management than contractor selections with the involvement in all or most discussions about value management occurring for almost two-fifths (38.74%) of projects. On the other hand, in only about one in six projects (16.83%) were practices involved in all or most discussion about contractor selection.
- In approximately one-third (32.46%) of projects, practices were unable to negotiate design variations.
- For somewhat more than half (54.47%) of projects a bespoke professional services agreement was used in the novation process and only 3.13% of projects used an unamended industry standard contract.

71 Constitution Avenue | COX Architecture | Photographer: Jakub Beseda

- In only one third (32.94%) of projects, the novation deed had a clause which allowed the architect to contact the principal or principal's representative if there was a significant departure from the brief.
- In more than two-fifths (41.14%) of projects practices did not know the other consultants' scope of works in order to determine what was assumed in their own scope of works for the project.
- For well over a quarter (28.64%) of projects, practices did not have access to the Principal's Project Requirements (PPR) prior to novation.
- In more than two-fifths (43.31%) of projects, practices had no access and/or awareness of the design and construct contractor documents or what constituted the contract documents by which the contractor was engaged.
- There is a dramatic difference in practices' inclusion in strategic decision-making processes at Project Control Group meetings after novation. In only 9.02% of projects were practices always included and only 14.39% of project were they often included. The differences before and after novation are statistically significant.
- In slightly more than one-fifth (21.22%) of projects did architects feel they were able to effectively fully protect the original principal's interests after being novated to the contractor. In more than one-quarter (27.56%) of projects architects felt they could not effectively protect the original principal's interests.
- In almost two-fifths of projects timely availability of the appropriate consultants and sub-contractors, when needed for construction documentation occurred only sometimes, rarely or never.
- In almost half (48.42%) of projects, practices did not know whether monthly reports issued to the contractor during novation were passed on to the original client. Censoring of reports passed on to the client was more likely to occur when reports were often or sometimes passed on to the client compared to those projects where the report was always passed onto the client.
- Of note is that for the 27.25% of projects where reports were always passed on to the client, only 30.36% of projects reported censorship. However, for those projects where reports were often or only sometimes passed on the proportion of projects where censorship occurred was respectively 55.56% and 73.17%. This suggest that monthly reports that are only occasionally passed on are more likely to be censored.
- For 5.6% of projects, monthly reports simply had never been passed on.

35 Hinder St | Guida Moseley Brown Architects | John Gollings

- One half (49.53%) of projects allowed sufficient time, only sometimes, for research, co- ordination and assessment of:
  - requests for information,
  - shop drawing reviews,
  - to coordinate drawings,
  - sample/ prototype reviews,
  - material substitutions,
  - contractor led design proposals/changes, and
  - value management changes.
- In more than four out of five projects (82.52%) practices had been asked to re-document or make significant changes to drawings that should have been a variation but were not granted by the contractor at least sometimes, if not often or always.
- Well more than half of projects (60.73%) saw anything from more than a quarter to all of finishes and fixtures changed from the original tender after novation
- In three-quarters (75.97%) of projects contractors had applied undue pressure for approval during sample reviews or substitutions. at least sometimes, if not often or always.
- The contractor never provided robust and high quality design management throughout novation in between a quarter and one-third (29.44%) of projects.
- Disconcertingly, in almost precisely half (50.24%) of projects practices responded that the contractor's design management had a negative effect on the quality of the project for the end user.
- For close to one half (46.12%) of projects practices indicated that novation had not allowed for improved construction methodology.
- For well more than half (57.77%) of 412 projects in the sample, practices were of the opinion that novation had reduced the level of architectural detailing as synonymous with quality.
- In about half (47.57%) of projects, practices were only sometimes provided with the opportunity to document and co-ordinate a solution with other consultants when unforeseen co-ordination issues occurred on site that required architectural input.
- For more than a quarter of projects (26.03%) architects' access was compromised with free access being allowed only sometimes for more than one in five projects (20.92%) or 'never' in the case of one in twenty (5.11%) of projects.
- For more than one third (36.41%) of projects, there was undue pressure or influence in the preparation of monthly reports and likewise in for an almost identical proportion (36.23%) of projects, there was undue pressure or influence in the issuing of monthly certificates.
- Only slightly more than two-fifths (40.34%) of projects were reported as finishing on budget and slightly less than half (49.02%) finishing on time.

2. THE COMBINED PICTURE FROM THE FINDINGS

There is a high degree of concurrence between Part 1 and Part 2 findings, especially in relation to the themes that emerged from the comments about challenges.

2.1 A BRIEF OVERVIEW OF OPEN-ENDED PART 1 COMMENTS.

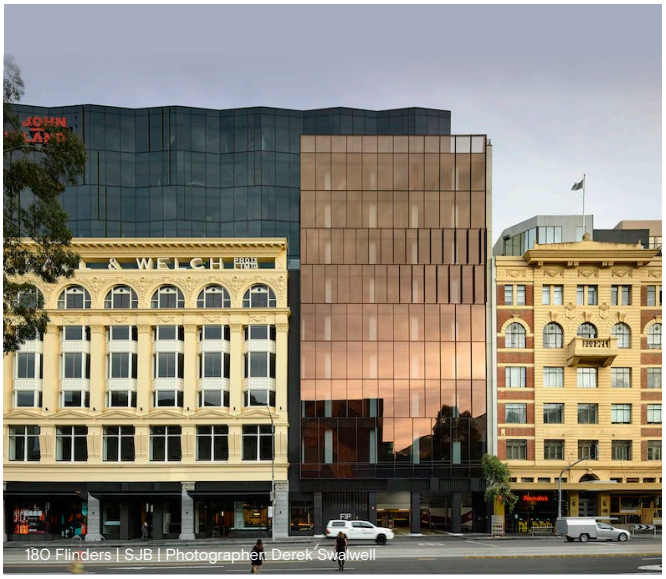
In the Part 1 perceptions survey, practices were invited to complete up to three free text response fields each for benefits and challenges of novation. Respondents to the survey were less likely to identify benefits than challenges. Almost one-fifth (18.80%) of practices did not identify any benefits while 10.53% did not identify any challenges. In all 551 comments were made identifying benefits while 678 were made identifying challenges.

The top three themes resulting from the open-ended benefits comments findings by percentage of practices included:

- time and efficiency - 40.60%
- buildability - 36.84%
- relationship and financial /commercial - both 28.20%.

The top three themes resulting from the open-ended challenges comments findings by percentage of respondents included:

- design control/ integrity, independence and compliance - 57.89%
- quality and end-user satisfaction - 46.99%
- communication / relationship with the original client - 31.20%.


180 Flinders | SJB | Photographer Derek Swalwell

2.2 CORROBORATION BETWEEN BENEFITS AND PART 2 PROJECT FINDINGS

2.2.1 Time and efficiency

There was a perception that novation presents a significant benefit for time[7] and efficiency. Only slightly more than two-fifths (40.34%) of projects were reported as finishing on budget and slightly less than half (49.02%) finishing on time. However, there was also a large unknown component for more than one third (34.47%) of projects in relation to finishing on budget and for slightly more than one in seven of projects (14.88%) in relation to finishing on time. When the known outcomes are compared then, at best, 61.57% of projects finished on budget and 57.59% finished on time.

2.2.2 Buildability

Supporting the perception that novation presents a benefit for buildability are the 45.24% of projects where architects indicated novation did allow for improved construction methodology. However this still leaves 54.76% of projects where architects felt that novation had not improved construction methodology for the project. However, the basis or calculating this percentage is the exclusion of the almost one in six (15.78%) projects where practices did not know. When the entire range of responses are included then in only somewhat more than one-third (38.11%) of projects indicate has novation allowed for improved construction methodology while 46.12% of projects it had not.

2.2.3 Relationship and financial/commercial benefits

Relationship benefits noted in the Part A comments such as *Closer working relationship with the builders* were not, in essence, corroborated by the findings. However in similar vein to the time and efficiency findings, comment on financial/commercial benefits such as *More accurate building costs for the client as the builder is engaged during the design process* might be judged to be reflected in the aforementioned budget outcomes for projects. Similarly, comments sub-themed around financial risk reduction (for the architect) such as *Less Responsibility for Financial aspects of project* are explained by Part B project survey findings which demonstrate that architects were often excluded from financial decisions and information. For example in closer to half (44.5%) of projects, practices were neither provided with access to the cost plan nor were able to provide strategic advice on it. Moreover, in only less than one third (29.2%) of projects, were architects were provided with Total Construction Costs information.

7 It should be noted that the survey was only measuring time against the contractor's program which is already based on novation and a large time saving is already realised. Further exploration is warranted as early contractor commencement can enable contractors to commence demolition order long lead time elements like lifts while documentation is being completed. This can return cost savings to the client the client does not need to hold the site for as long in an unoccupied state.

2.3 CORROBORATION BETWEEN CHALLENGES AND PART 2 PROJECT FINDINGS

2.3.1 Design control/ integrity, independence and compliance

Supporting the perception that novation presents a significant challenge to design control/ integrity, independence and compliance are the following Part 2 survey findings:

- In just under one third (33.17%) of projects reported, more than one-quarter to a half of finishes and fixtures changed.
- In only half (47.57%) of projects architects were reasonably (15.29% always and 29.85% often) able to assume lead consultant responsibilities of documenting and co-ordinating solutions with other consultants when unforeseen co-ordination issues occurred on site that required architectural input
- In only half of projects (49.64%), was free site access provided to the architect.
- Only half (48.45%) of projects provided the Architect with access to the principal's project requirements prior to novation.
- For close to three quarters of projects (73.91%), after novation, practices were only sometimes (42.2%) or never (31.71%) included in strategic decision-making processes at PCG meetings.
- In well more than one-third (38.68% of projects timely access to appropriate consultants and sub-contractors for construction documentation occurred only sometimes, rarely or never.
- Less than one third (29.3%) of projects saw the architect engaging major engineering consultants.
- Only somewhat more than one-third of projects were reported as being allowed sufficient time, 'always' or 'often', to respond to requests for information (39.36%), shop drawing reviews (38.93%) or to coordinate drawings (38.29%). Even, fewer projects were reported as being allowed sufficient time 'always' or 'often' for material substitutions (32.12%), contractor led design proposals/changes (30.24%) or value management changes (29.68%). Notably, more than two-thirds of projects were reported as being allowed sufficient time only 'sometimes' or 'never' for contractor led design proposals/changes (67.8%) and value management changes (68.13%).

Bide Building Refurbishment | Hassell | Purcell and Baukultur | Photographer: Baukultur, Raphael Christinat

Importantly many of the conditions simply did not exist to enable the architect to have the required level of project knowledge or control – even over the delivery of their own services that, in-turn, would permit the architect to exercise design control and ensure integrity and compliance.

- In only slightly more than one-fifth (20.29%) of projects practices were fully able to negotiate key design variations into the overall consultant scope and fees at the time of novation; and between only half and two-thirds of projects (58.7%) provided the architect with an overall project program or timeline to completion of construction on which to base their fee. Furthermore, architects were asked to re-document or make significant changes to drawings that should have been a variation but were not granted by the contractor in more than four out of five projects (82.52%) at least sometimes, if not often or always. In almost two-fifths (39.81%) of projects this practice happened either often (29.37%) or always (10.44%).
- For somewhat under a quarter (22.8%) of project examples practices did not know the project would be novated at the time they submitted their tender, and for 2.9% of projects, practices simply did not know what the state of knowledge was about novation at the time of submitting a tender. This is of particular interest as the scope of work and fee breakdown should be different for a construction only set of documentation to a design and construct novated set of documentation set – meaning it is difficult to establish a fee appropriately, with matching staffing and documentation programme without knowing the procurement model.

- In between only one-half and two-thirds of projects (58.7%) did architects know at which stage of design/documentation that projects would be novated when they submitted their fee (tender).
- For more two-fifths (43.31%) of projects, architects had no access and/or awareness of the D&C Contractor Documents or what constituted the contract documents by which the Contractor was engaged.
- Between one-third and one-half (41.19%) of architects did not know the other consultants' scope of works in order to determine what was assumed in their own scope of works for the project. This lack of alignment is a significant shortcoming.

2.3.2 Quality and end-user satisfaction

Corroborating the perception that novation presented a challenge to design management process and the resultant level of quality of built outcome for the end user were the following findings:

- In somewhat less than a third of projects (28.98%) the contractor provided robust and high quality design management throughout novation either often (22.14%) or always (5.84%). However in almost the same proportion of projects (29.44%) the contractor never provided robust and high quality design management. This left a larger proportion (38.2%) of projects in the middle ground where the contractor provided robust and high quality design management *only sometimes* throughout novation.
- Unsurprisingly (and disconcertingly), given the preceding point, in almost precisely half (50.24%) of projects the contractor's design management had a negative effect on the quality of the project for the end-user.
- Well more than half of projects (60.73%) saw anything from more than a quarter to all of finishes and fixtures changed from the original tender after novation. Undue pressure for approval during sample reviews or substitutions happened in three-quarters (75.97%) of projects at least sometimes, and in two-thirds (66.02%) of projects this occurred either often (26.70%) or always (9.95%)
- For well more than half (57.77%) of projects, Architects were of the opinion that novation had reduced the level of architectural detailing as synonymous with quality.

2.3.3 Communication/relationship with the original client

Supporting the perception that novation represented a challenge or diminution of the communication / relationship with the original client are the following:

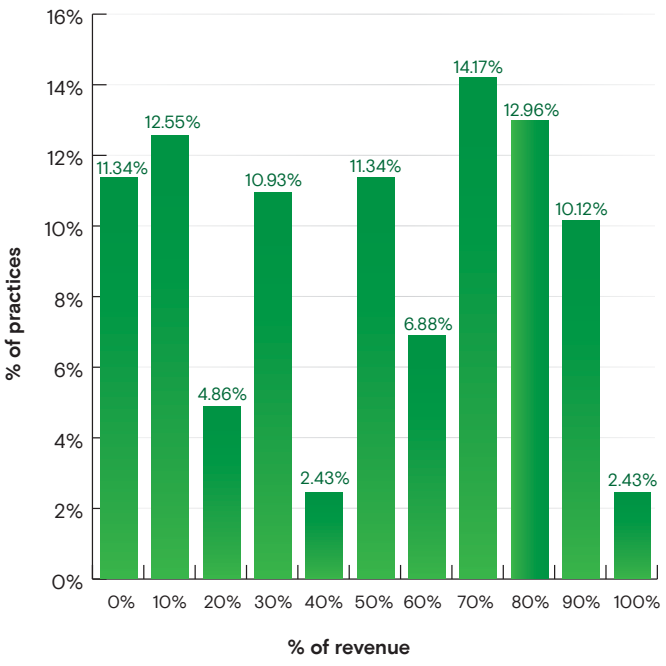
- In only marginally less than one third (32.94%) of projects the novation deed had a clause which allowed the architect to contact the principal or principal's representative if there was a significant departure from the brief.
- For more than one third (36.41%) of projects, there was undue pressure or influence in the preparation of monthly reports with the absence of such pressure or influence experienced only 'sometimes' for one quarter (25.19%) of projects or 'never' for more than one in nine (11.22%) projects.
- In almost half (48.42%) of projects reported in the survey, practices did not know whether monthly reports issued to the contractor during novation were passed on to the original client. Practices reported that for only a little more than one third of projects (36.01%) the monthly report issued to the contractor had been passed on to the client, either always (27.25%) or often (8.76%). Censoring of reports passed on to the client was more likely to occur when reports were often or sometimes passed on to the client compared to those projects where the report was always passed onto the client.
- In only 21.22% of projects reported in the survey did practices feel they were able to effectively fully protect the original principal's interests after being novated to the Contractor. For almost precisely on-half (49.76%) of projects reported practices felt that they had only been partially able to protect the original principal's interests and more than one-quarter (27.56%) reported said they felt they could not effectively protect the original principal's interests for the project.

3. PART 1: DETAILED FINDINGS – PERCEPTIONS OF NOVATION

3.1 PRACTICE REVENUE

In the ten years from 2009-2019, almost 58% of practices surveyed derived 50% or more of their revenue through a D&C contract that had been novated. Almost one fortieth (2.43%) of practices derived 100% of their revenue from this form of service delivery.

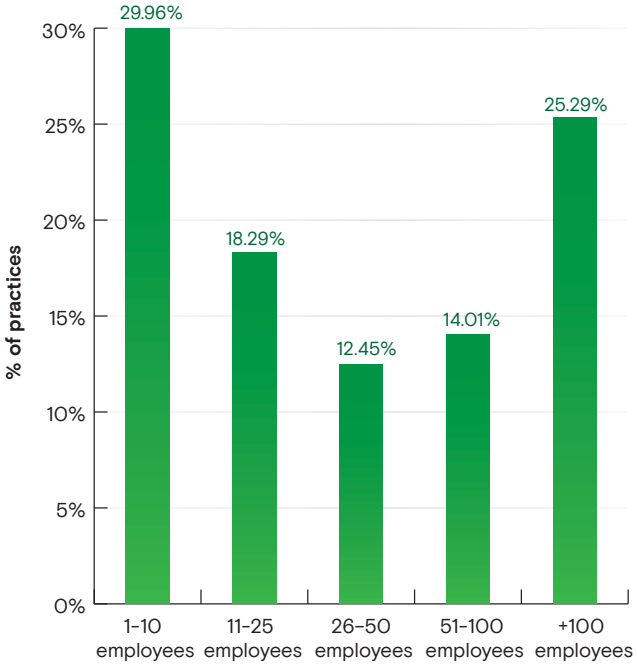
Figure 1: Broadly, what percentage of projects (by total revenue) that your practice has delivered would you estimate are Design and Construct with a novated contract in the last ten years (2009-2019)? (n=247)



3.2 PRACTICE SIZE

Institute Survey respondents were asked to indicate the size of their studio according to the number of employees. Nationally, there was a mix of small, medium and large practices. While the single largest group were small practices of up to 10 employees, comprising 30% of survey respondents, large practices who engaged over 51 employees comprised approximately two-fifths (39.30%) of the sample of practices responding.

Figure 2: What is the size of your studio? (n=257)




Myer Music Centre | Peter Elliott Architecture + Urban Design | Photographer: John Gollings

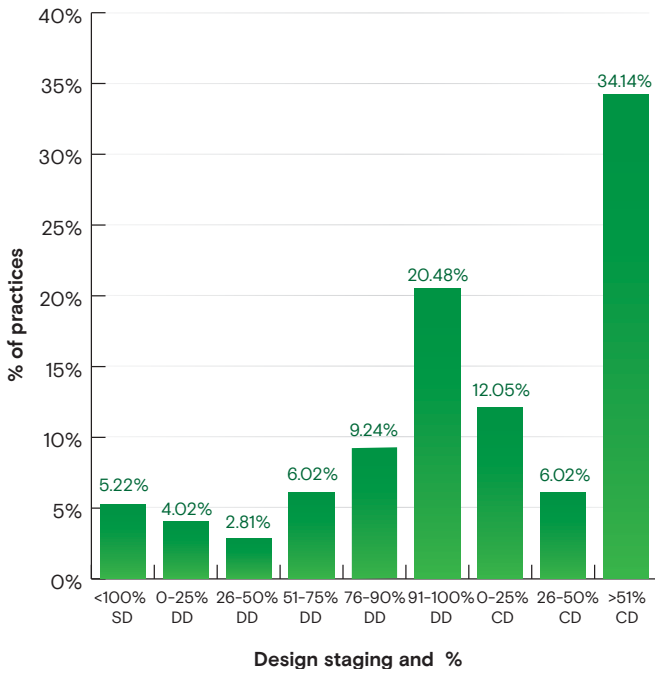
3.3 PERCEIVED RELATIONSHIP BETWEEN DESIGN STAGING AND NOVATION OUTCOMES

Just over one-third (34.14%) of practices believed that the point in the documentation phase where novation procures better outcomes for the general public and end user is when more than 51% of the construction documentation (CD) is completed. When combined with novation at various stage of design development (DD) almost three quarters (72.69%) of practices believed that the optimum point of novation occurs at very late design development (>91% DD) or later.

Only 5.22% of practices believed that better outcomes for the general public and end user are achieved when novation occurs at the 100% schematic design (SD) completion.

These results identify an optimal level of document completeness at the point of novation. By contrast, section 8 below reports a major trend toward novation earlier and earlier in the design process, with less complete documentation, leaving a greater proportion of design choice in the hands of the contractor and missing the opportunity to effectively lock in design quality for the benefit of the principal.

Figure 3: Do you believe novation procures better outcomes for the general public and end user when it occurs at:




Samuel Gilbert Public School Redevelopment | Fulton Trotter Architects | Photographer: Alicia Taylor

3.4 IMPACT OF NOVATION ON PROJECT QUALITY

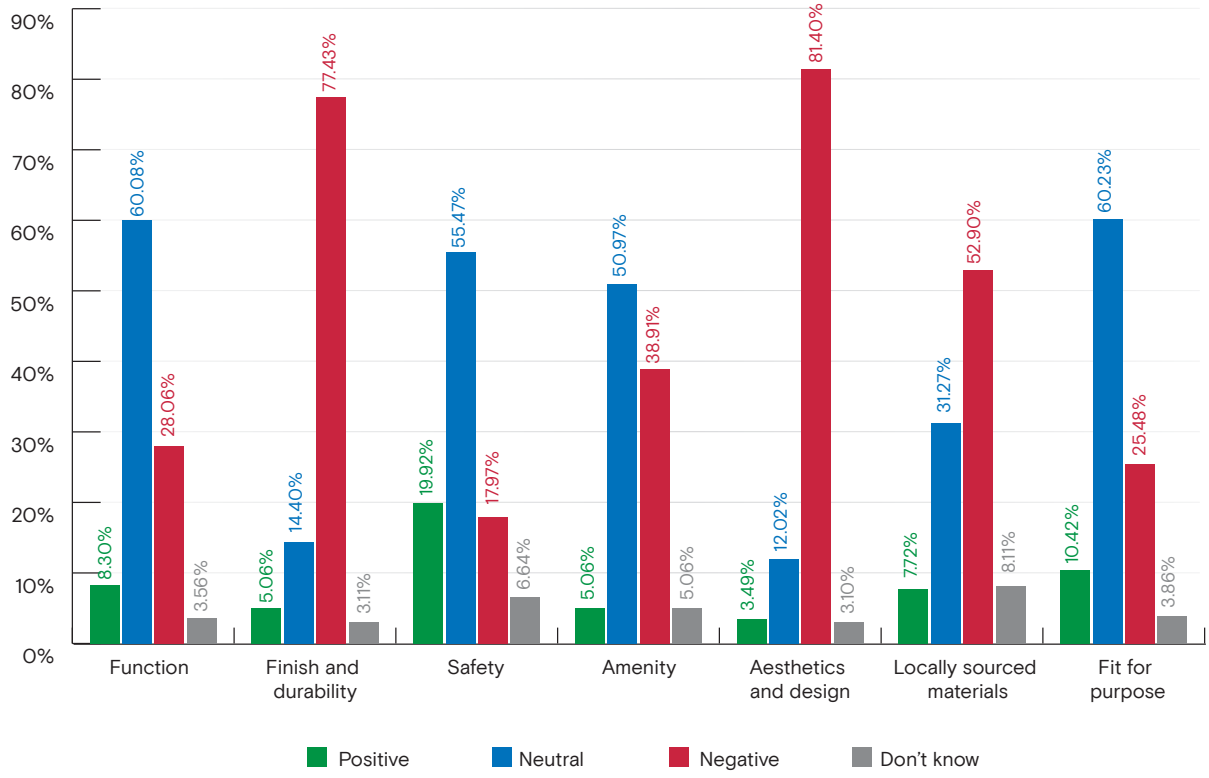
Practices were asked about the impact of novation on the final quality of the following:

- Finish and durability – More than three-quarters (77.43%) of practices believed there was a negative impact
- Safety - Practices were generally equivocal with well more than half (55.47%) indicating there was a neutral impact, and the remainder of practices roughly divide between those who thought there was a positive impact (19.92%) and those who thought there was a negative impact (17.97%).
- Locally sourced materials - 53% of practices indicated there was a negative impact
- Aesthetics and design – A large majority (81.4%) of practices indicated there was a negative impact
- Function - 60% of practices perceived there was a neutral impact and a further 28% indicated this to be a negative impact.
- Amenity - almost two-fifths (38.91%) perceived there to be a negative impact and more than half (50.97%) indicated the impact to be neutral.
- Fit for purpose – while 60% of practices indicated there was a neutral impact, more than one quarter (25.48%) perceived there was a negative impact

Remarkably, on average, across all seven parameters for final building quality, less than one in ten (8.57%) of practices indicated positive impacts. This ranged from 3.49% for aesthetics and design to a maximum of 19.92% for Safety,

On the other hand, on average, across the seven parameters for final building quality, close to half (46.02%) of practices indicated negative impacts. This ranged from 17.97% for safety to 81.40% for aesthetics and design.

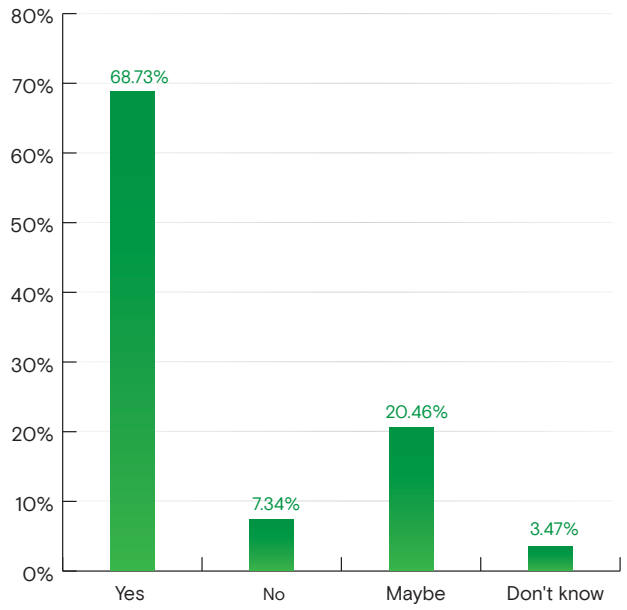
Figure 4: Based on your practice's experience of DNC projects, what effect does novation have on the final quality of the following? (n=259)



3.5 SUPPORT FOR AN INDUSTRY-WIDE CODE OF NOVATION

Practices were asked if they believed that the creation of an industry-wide Code of Novation would be beneficial in improving the quality of projects delivered through novation. More than two thirds of practices (68.73%) supported the proposal and further one-fifth (20.46%) responded with a moderate support (maybe) Only 7% did not support the proposal that an industry-wide would be beneficial in improving the quality of projects delivered through novation.

Figure 5: Do you believe that the creation of an industry-wide Code of Novation would be beneficial in improving the quality of projects delivered through novation?

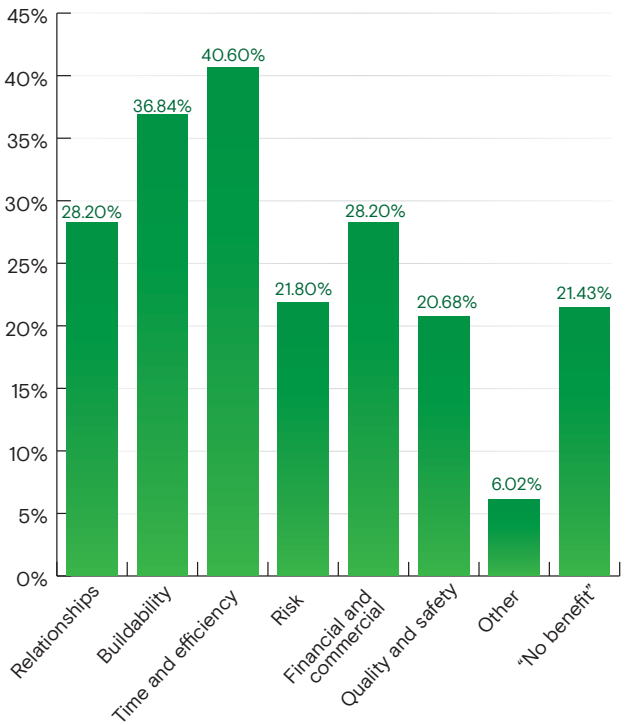


3.6 BENEFITS OF NOVATION – OPEN ENDED COMMENTS

Practices responding to the survey were provided with the opportunity to provide up to three open ended comments about the benefits of novation. The responses provided ranged from a single word to a sentence. Of 266 respondents, well more than half (57.52%) provided three comments, while slightly less than one-fifth (18.80%) either provided no comment or state nil, none or - in the comments field. Almost one quarter of the remaining respondents provided either one comment (10.90%) or two comments (12.78%). 551 comments in total were received about the about the benefits.

The most common theme for benefits were those that related to with time and efficiency or buildability. Almost exactly two-fifths (40.60%) of respondents identified a benefit in relation to yime and efficiency.

Figure 6: Identified benefits of Novation by themes - % of Respondents (n= 266)



3.6.1 Time and efficiency

Time and efficiency comments fit to many subthemes including:

3.6.1.1 Overall project speed:

> Speed.
>
> May reduce construction time.
>
> Speed of delivery.
>
> It's quicker from concept to Handover than the alternative might be.

3.6.1.2 Early commencement:

> Reduced project delivery time (because contractor starts earlier, site services usually start earlier).
>
> Fast tracking of construction.

3.6.1.3 Enabling Architects to focus on design in the absence of project administration:

> Less time administering.
>
> Less time in managing and co-ordination meetings.
>
> Rfficient use of architect's time/skills. Clear scope, Clear role as documentor, adjudicator.
>
> Lets us get on with designing and drawing that we are better at.
>
> It frees up the architect to get on with more design.
>
> Less administrative work during the construction services phase.

3.6.1.4 Working to a program:

> Staying within construction programme.
>
> Expediency of programme.
>
> Program and construction scheduling worked into documentation outcomes.

3.6.1.5 Economy and streamlining of processes:

> More definitive decision making (often faster).
>
> Documentation process is more streamlined with better QA as it incorporates construction input at an earlier stage - less changes on the go.
>
> Working directly with industry to streamline time for clients.
>
> When difficulties arise on site, the Contractior can resolve immediately without having to wait for responses.
>
> Design changes can happen earlier Builder has the same architect on board - there's no double ups with a new team trying to get their head around the original design.

Easy Street Commercial | DFJ Architects | Photographer: Christopher Frederick Jones

3.6.2 Buildability

Buildability advantages were identified by more than one third (36.84% of practices). While many comments simply summarily commented to buildability with major subthemes explaining this included:

3.6.2.1 Working through problems and details:

> Workshopping details with the Builder.
>
> Builder involvement in problem solving.
>
> earlier clarification of critical construction detail.

3.6.2.2 Access to knowledge of the builder:

> Construction knowledge and specific detailing.
>
> Access to subcontractor intelligence (when available).
>
> Builders knowledge of buildability.
>
> We become more aware of buildability issues and fit for purpose.
>
> Better understanding of construction methodologies.

3.6.2.3 Early engagement with relevant informants:

> When DNC occurs at the right point (quite late) you get early benefit of the contractors more technical sub-consultants to assist in finalising technical aspects of the design.
>
> Build ability is improved with early contract input.
>
> Build ability issues can be raised earlier in design process.
>
> Buildability input at an early stage from the involvement of sub-contractors at an early stage.
>
> Direct connection to end tradespeople to assist in design process.

3.6.3 Relationships

Relationship advantages were identified by more than one quarter (28.20%) of practices. Major subthemes included:

3.6.3.1 Collaboration and partnership:

> Collaborative approach to ultimate objective.
>
> Working collaboratively with the builder (sometimes).
>
> Opportunity to build a strong relationship with the Builder.
>
> Closer working relationship with the builders.
>
> Increased collaboration between contractors and design professionals.
>
> Builder more engaged in the design process and understands reasoning for design decisions.
>
> If approached well, can be a positive partnership between builder, architect and client.
>
> Work collaboratively to resolve construction challenges.
>
> Provide a collaborative process to enable projects to be realised.

3.6.3.2 Reduction in conflict or adversarial interactions:

> Reduces the adversarial nature of contact Admin Stage.
>
> Reduced disputes between Builder and Principal.
>
> Less Conflict between us and the Builder.
>
> Enhanced overall team environment delivering a project rather than ‘us’ and ‘them’.
>
> Better team formation and collaborative approach to problem solving (rather than adversarial, consultants vs. contractor).

A House for Grandma |Brcar Morony Architecture | Photographer: Justin Alexander

3.6.3.3 Early engagement with the contractor and/or subcontactors and its benefits:

Early contractor involvement and early fabricator involvement.

Working more closely with builders and trades at earlier stages.

Early co-ordination with builder.

Contractor input earlier in design/doc process.

3.6.4 Financial and commercial

Financial and commercial advantages were identified by more than one quarter (28.20%) of practices. Major subthemes included

3.6.4.1 Budget and cost control and delivery on budget:

More accurate building costs for the client as the builder is engaged during the design process.

More control of project costs.

Assistance with costing and budget.

Attaining budget.

Keeping budget monitored.

Cost control to client, minimisation of variations.

3.6.4.2 Costing savings for the builder or developer:

May reduce contract administration fees for the client.

Access to builder's pricing and construction methodology earlier in design results in cheaper buildings for client.

Lower construction cost.

Builder can cut corner to save money.

Identification of cost savings.

Cheaper.

Can lead to short term cost savings.

3.6.4.3 Financial risk reduction or transfer:

Construction cost responsibility diluted.

Contractor has greater responsibility for construction cost.

Simple contractual builder/client relationship i.e. variation risk built into price.

Architect does not have to certify payments.

Security of payments.

Less Responsibility for Financial aspects of project.

Guaranteed monthly payments from Main Contractor; usually no issues with payments or cashflow.

3.6.4.4 Financial benefits to the Architect:

We reduce costs of re-design and documentation compared to when 100% documentation occurs prior to tender.

Can be more profitable for the architect.

Less insurance fees.

We get paid for our speculative efforts.

Opportunity for additional fees for variations.

3.6.5 Quality and Safety

Quality and Safety advantages were identified by slightly more than one fifth (20.68%) of practices. Major sub-themes included

3.6.5.1 Value management and overall quality:

> Input into VM process.
>
> VM process can be better informed by contractor.
>
> Value for the client.
>
> Value management opportunities.
>
> Maintaining design quality.
>
> Fit for purpose and risk review.

3.6.5.2 Safety in design:

> Safety in design input.
>
> Safety in design with contractor input.
>
> Builder engages additional safety in design as a responsibility.
>
> Better integrated 'Safety in Design' solutions.
>
> Managing recent changes in Fire and material regulations.

3.6.5.3 Working with others to improve design, quality and project outcomes:

> When obtained from a quality contractor at the correct time, input on preferred construction methodology can lead to superior design outcomes. A contractor's input on methodology and process can sometimes save significant time, potentially leading to savings that can improve design quality (although, in practice are often taken as improved margin/profit by client/contractor).
>
> More buy in to built outcome by contractor.
>
> Co-operative design.
>
> Contractor, in some instances, facilitates design development processes between architect and specialist subcontractors.
>
> Contractor's ownership of outcome should ensure quality finish.
>
> If it is a respectful relationship then the objectives of good quality and appropriate can be achieved.

3.6.5.4 More attention to design and detailing:

> More focus on design.
>
> More focus on design and documentation.
>
> Can focus on design more.
>
> designer is the documentation consultant.
>
> Ability to focus on what is important and needed.
>
> Longer documentation program.
>
> Less project management and more design time.
>
> Waterproofing and technical concealed construction details are often done well.
>
> Resolution of services design with particular reference to mechanical services.
>
> Resolution of facade design, but only if the contractor is willing to engage in a meaningful design process.
>
> Less project management and more design time.
>
> Our team can concentrate on delivering documentation and advice to builder.

3.6.5.5 Materials selection and sourcing:

> Less substitution as argument happens prior to construction.
>
> Sourcing of products.
>
> New Materials introduced.
>
> Avoid material re-selection or value management.
>
> Early contractor involvement in resolving material supply issues.
>
> Better access to alternative material selection and ability to discuss with sub-contractor.
>
> Collaboration on materiality options.
>
> Using builder's real experience to influence material selection.

3.6.5.6 Less design variation

> Documentation process is more streamlined with better QA as it incorporates construction input at an earlier stage- less changes on the go.
>
> Minimal variations.

3.6.6 Risk mitigation

Risk mitigation advantages were identified by almost exactly one sixth (16.54%) of practices. Major subthemes included:

3.6.6.1 General reduction of risk or liability.

> Low risk for architects.
>
> Reduction of risk.
>
> Liability for problems reduced.
>
> Risk minimisation.
>
> Less risk.

Murrenda Residential Aged Care Home | STH | Photographer: Chris Matterson

3.6.6.2 Transfer of risk or responsibility away from the Architect to other parties.

> Contractor takes risk for design.
>
> Risk in my view more broadly taken by contractor.
>
> Contractor managing the project.
>
> Architect not responsible for nominated suppliers / sub contracts.
>
> Risk is mainly with Builder (depending on contract).
>
> Overall reduced consultant co-ordination/ responsibility.
>
> Sharing of risk.
>
> Distribution of Responsibilities.
>
> Clarity over roles and responsibility.
>
> Minimising Architectural risk associated with the construction services phase.
>
> Less exposure for architect.
>
> Less risk with competent builders.
>
> Potentially offloads some risk onto the builder for design errors or omissions.
>
> One stop shopping for principal, all resolutions go through contractor.
>
> Delegation of risk.
>
> Exposure to new construction methods without the risk.

3.6.6.3 Reduced risk for clients/principals.

Client risk abatement.

Less risk for developer.

Clients and financiers satisfied by shifting risk to another party.

Reduced short term risk for owner.

Perceived reduction of risk for developer.

Shifts risk form the Developer to the Builder.

Reduces risk for the end user or client.

Reduced risk to client.

Perceived ability for clients to shed risk to contractor.

Perceived reduction in client risk.

3.6.6.4 Project or program certainty

Programmatic certainty.

Management of the project delivery risk.

Projects have moved ahead in a slow market with client confidence from contractor commitment without client paying for documentation up front.

Programme certainty.

Certainty.

Project program under control.

Surety of process.

3.6.7 Other benefits

Other benefits included:

3.6.7.1 Enhanced strategic business opportunities:

Smaller Architects can participate in larger contracts through contractor management.

Ability to have more projects on at the same time as they're not all detailed design.

Can take on bigger projects, Can partner with larger firms, Obtain jobs without soliciting or tender.

Larger projects, Experience with State Government process.

Project marketing.

Publicity.

Meet potential future builder/client.

3.6.7.3 Transferring the client relationship to the contractor

Removal of an indecisive and inexperienced client.

Client has a better perception of what is needed.

Architect has an opportunity to influence outcomes during the entire process.

Being one step removed from 'no this is no longer possible' conversation with clients.

Contractor assistance to those clients with little or no development experience or internal resources.

3.6.7.4 Retention of the project

The firm gets to see the project through to completion.

Managed to retain the project.

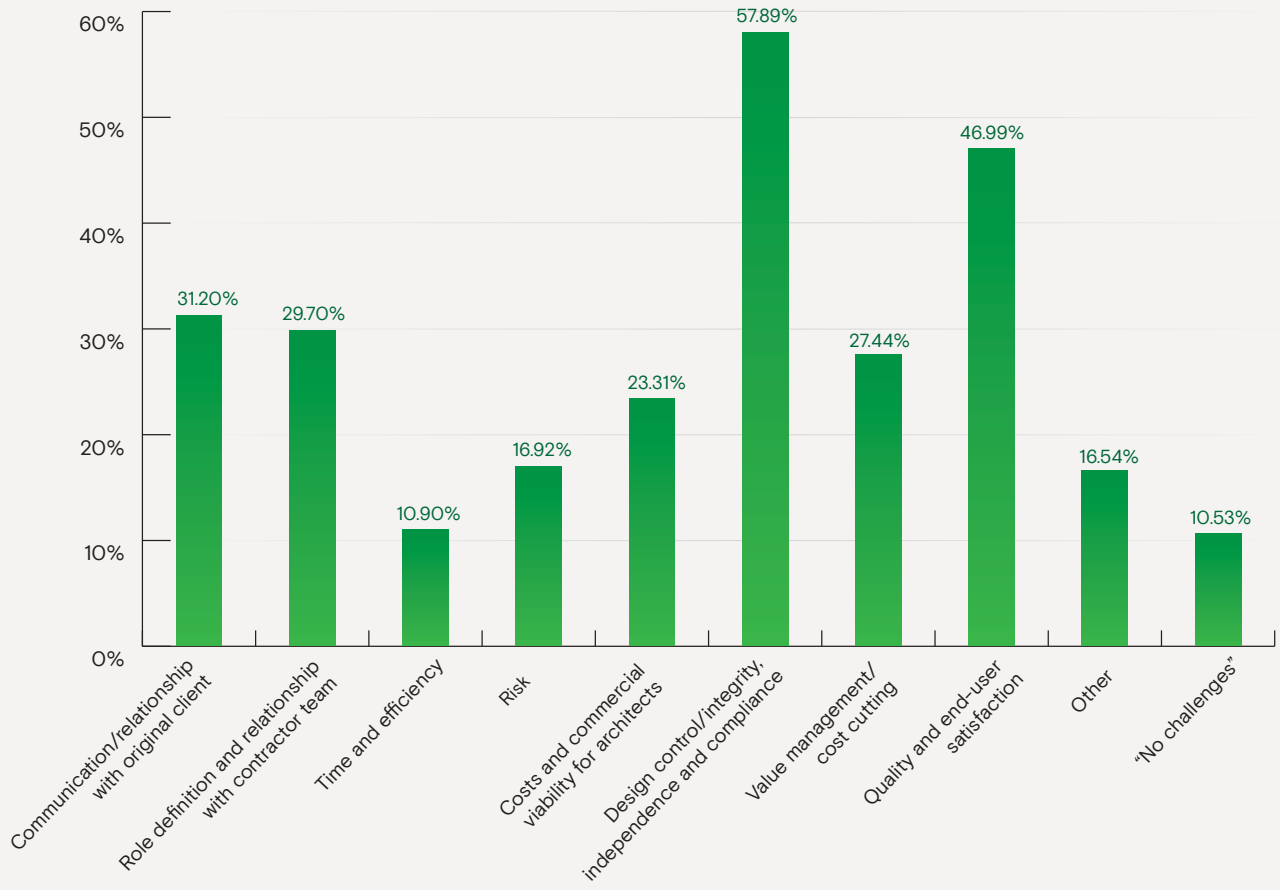
Maintaining a job.

3.7 CHALLENGES OF NOVATION – OPEN ENDED COMMENTS

Respondents to the survey were provided with the opportunity to provide up to three open ended comments about the benefits of novation. The 694 responses provided ranged from a single word to a sentence. Of 266 respondents, a large majority comprising almost exactly four out of five respondents (79.70%) provided three comments, while only slighly more than one in ten (10.53%) provided no comment. Of the remaining respondents 6.02% provided two comments only and 3.76% provided one comment only.

The most common theme for challenges messaged by well more than half of practices (57.89%) were those that related to design control/ integrity, independence and compliance. Close to half of practices stated a challenge themed to quality and end-user satisfcaton. Close to one third (31.20%) of practices provided statements of challenges themed to issues of communication/ relationship with the original client and a similar proportion (29.70%) provided statements of challenges themed to issues of role definition and relationship with contractor and team . More than a quarter (27.44%) of practices identified challenges in relation to value management or cost cutting. Slightly less than one quarter of practices (23.31%) identified challenges of costs and commercial viability for architects.

Figure 7: Challenges of Novation - % of Respondents



3.7.1 Design control/ integrity, and independence

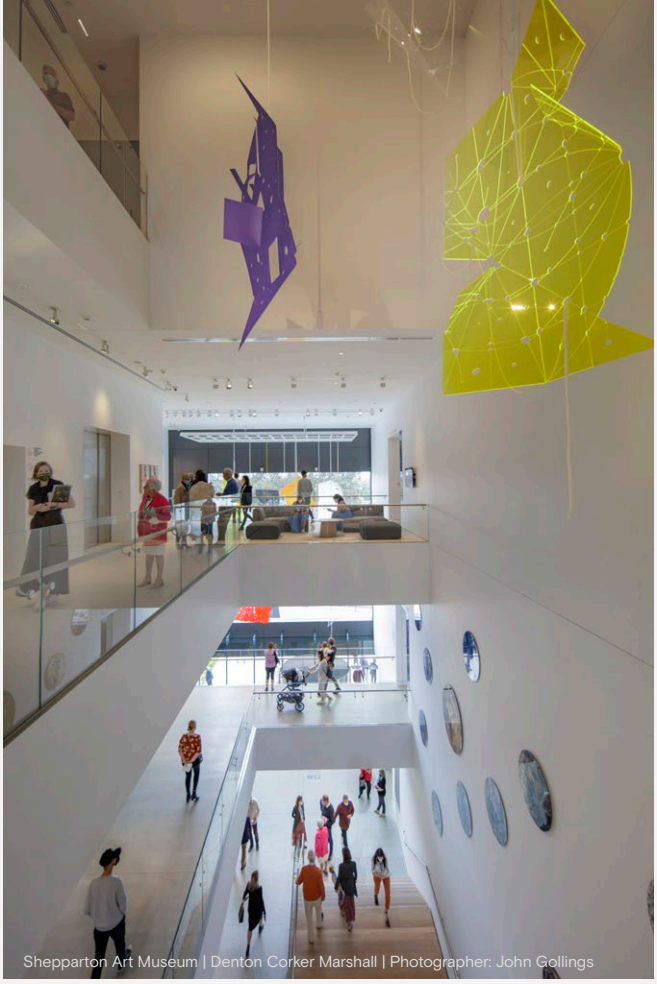
More than half of practices (57.89%) identified a challenge that related to design control/ integrity, independence and compliance. Given the large volume of these particular comments, only selected examples are provided. Sub themes included:

3.7.1.1 Loss of control over design

> Design controlled by Builder.
>
> Briefing and design pre-novation is undone by decision makers who have no background to the project; contractually we no longer can maintain design quality should the contractor choose.
>
> Almost all original specification is changed to an alternative for value management.
>
> Loss of control design outcomes.
>
> The architect has no authority. Everything is out of his control.
>
> Loss of control on material selections and substitutions.
>
> No control of changes.
>
> Architect can give advice only.
>
> Lack of control of detail.
>
> Lose control over the final design outcome.
>
> Architect can lose influence upon the outcome.

3.7.1.2 Being left out of decision processes

> Decisions made without architect.
>
> Design decisions are not being made by designers.
>
> Design and detail decision making devolved to project managers.
>
> Lack of power in contract can result in architect being 'cut out' of decision making on site.
>
> Removal from decision making process.



Shepparton Art Museum | Denton Corker Marshall | Photographer: John Gollings

3.7.1.3 Maintaining the integrity of the design intent

> Maintaining integrity of design intent.
>
> Maintaining integrity of work.
>
> Ensuring design intent is maintained.
>
> Lack of design accountability taken on by Contractors, they are often only interested in delivery.
>
> Design Intent Compromise.
>
> Design intent cannot be novated.

3.7.1.4 Challenge in maintaining control over quality.

> Maintaining quality of design and finishes
>
> Sacrificing/ changing detail.
>
> Minimal site observation, we don't really know what happens.
>
> Delivering design quality and regulatory compliance.
>
> Loss of Quality Control.
>
> Lack of contractual standing to regulate quality of built work as per ABIC.

3.7.2 Quality and end-user satisfaction

3.7.2.1 Diminished quality of design

Contractually we are often still responsible for the design, however in practice we are directed by our new client to make design decisions affecting quality and code compliance, and we have little ability to control this aspect post novation.

Scope design and quality compromised.

Diluting Architectural Design Quality.

Quality and details in the original design are lost or value managed.

Poorer results for design and aesthetics generally.

Dilution of design integrity and finish quality.

Distancing of client relationship results in compromised design quality oversight.

Insufficient design and documentation time and poor quality building outcomes. (e.g. Inability to maintain the quality of materials and finishes, and inability to maintain original approved design - details are dumbed down).

3.7.2.2 Reduced control over quality

Lack of control of quality.

Quality control.

Less control of project quality.

Loss of control of construction quality.

Less control of quality through Value Management decisions.

3.7.2.3 Low quality finishes or detailing

Limited accountability for quality of finish

Substandard finish.

Quality and workmanship.

Finish quality reduced; User satisfaction reduced.

Reduced role in quality of building finish, especially defects.

Maintaining quality control over finishes and constrution methodology.

Quality of detailing and finishes.

3.7.2.4 Material quality, selection or substitutions

Substitution of materials resulting in a lesser quality.

Material substitution made without understanding implications.

Material quality; Detail refinement.

Unless specified as 'not for substitution' it is too easy for inferior products to be put forward – often the Architect is asked to approve these substitutions which can be a risk.

Change of selections.

Contractor focus on cost reduction incentivised by profit on low margins, value management leading to reduction in control/ material quality through change and substitution.

Control and Selection Substitutions for cost savings. - Strong desire to reduce costs and often these cost savings are not passed on to the client.

Alternative product pressure. Cladding, etc.

3.7.3 Role definition and relationship with contractor and team

3.7.3.1 Defining roles and responsibilities

Defining responsibility.

Maintaining a role during construction.

Lack of clarity around roles and accountability.

Architects role is substantially less important.

Mentoring and teaching staff as to the role of the architect as our role has been watered down so much although our responsibility remains the same.

Contractual responsibility when not engaged fully for contract administration.

Representing client and design intent and towing the line with contractor.

3.7.3.2 Energy and time to maintain and build relationships

Working relationships.

Contractor-client relationship.

Creating working relationship with contractor.

3.7.3.3 Controlling or pressuring behaviors and disrespect

'Bullying' by builders around information/ costs/fees.

Bullying and harassment by builders.

Consultants are bullied in to accepting substitutes and alternative details.

Bullying behaviour of contractors towards consultants.

Disrespect.

The Architect has no independence in the project and is quite often 'bullied' by the builders.

Bullying by project managers.

Contractor uses process to bully architects into lower quality outcomes; Contractor limits.

Architect's role during construction, quality suffers.

No respect for the work been done.

Contractors instructing us not to talk to the client.

Being instructed by the builder to change documentation or draw up thier details with things you do not recommend.

Engagement only on contractor's own terms being at the beck and call.

Instances where builders are unwilling to allow inspections to specific areas, claiming that works are underway and access is prohibited due to safety reasons.

No say under the builder in many matters.

Unreasonable demands from the contractor.

Resisting pressure from the new client to sign off on sub-standard work at the potential risk of losing fees and becoming financially compromised.

Being flipped to the Builder as a client causes conflict; We are treated as a sub-contractor with reduced respect.

Contractor demanding that the architect changes things that are not appropriate, but if there isn't a clause in the BCA or AS that we can say we must do this then they dont care.

3.7.3.4 Not being listened to

> Being listened to by Builder (and possible Principal) for the above.
>
> Having a meaningful 'voice' during construction.
>
> Architect can be ignored by builder on quality control issues.
>
> Builder ignoring architects input in value engineering and construction methodologies.
>
> Being treated as just another sub-contractor rather than a trusted advisor.
>
> Exclusion from the Client design meetings and site observation
>
> The design team's opinions are ignored.

3.7.3.5 Differing approaches, understanding or expectations

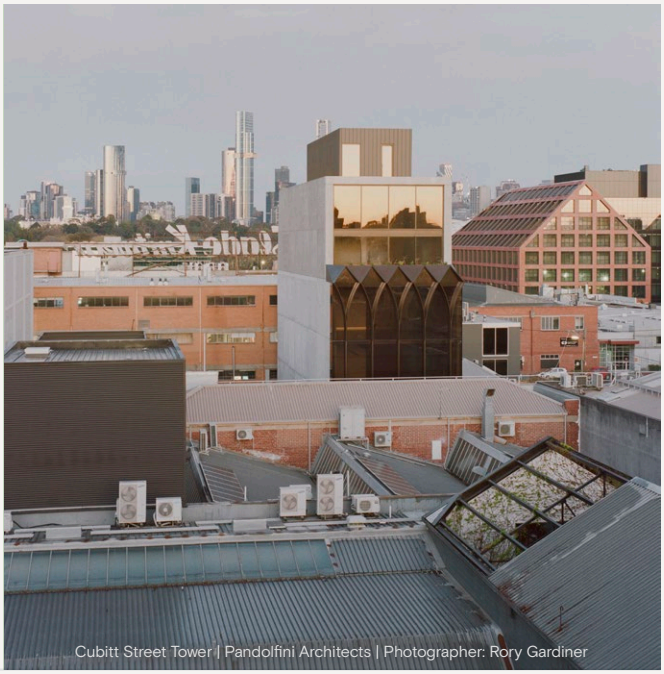
> Contractor not as passionate about detail/design.
>
> Lack of appreciation of the design process with stakeholder input.
>
> Contractor's approach and professionalism.
>
> conflicting agendas.
>
> Different expectations of final product.
>
> Builder is not always well briefed about the project at the beginning.
>
> Construction Phase - Managing the principal contractors expectations regarding availability, time and fees.
>
> Architect has multiple masters - clarity of concept and contract required to manage conflicting requests.

3.7.3.6 Conflict, adversarial or uncooperative relations

> Conflict between architect and the contractor with the architects professional knowledge being overrulled in the interest of the final product.
>
> Combative, adversarial nature of contractors is not a positive or productive working environment for engineers & architects.
>
> Can create confrontational work relations; Less chance of a cooperative team approach.
>
> Architect/contractor relations can become very difficult.

3.7.3.7 Inadequate communication

> Being given proper information for proposed substitutions of materials.
>
> Not fully transparent process and communication between builder, consultants and client.
>
> Changes occuring without notifying the architect.
>
> Builder and Principal not respecting rigorous communication protocols.
>
> Builder communication.



Cubitt Street Tower | Pandolfini Architects | Photographer: Rory Gardiner

3.7.3.8 Working with insufficiently experienced, knowledable or skilled parties

Inexperienced contractors.

Lack of design management skills with most Contractors.

Working with inexperienced/incompetent builders.

Being original designers, now being directed by non designer/philistine.

Lack of Quality Design Managers on the Builders Side.

Superintendent is often a project manager unqualified to make the decisions that need to be.

Made during construction.

Contractors do not understand the design process.

Project Managers not understanding the Design Brief or Required Functional Outcomes.

3.7.3.9 Lack of control or authority

Architects lose the authority to instruct builders.

Control of project directions.

No power under agreements.

Novation clauses in client/architect agreements can leave little control over who the architect gets novated to.

Little or no input into which Contractor we are to be novated to / work for.

3.7.3.10 Disgreements and differening positions

More conflicting contractual arrangement.

Potential conflict re design issues.

Difficulty during negotiation with builder, as costing becomes priority for builder rather than quality.

Resolving disagreements on contractors choices in regard material selection.

Assigning ownership of brief shortfalls, who leads resolution.

3.7.3.11 Coordination, access and relations with other consultants or trades

Lack of continuity of design team if new consultants engaged.

Limited coordination with trade based engineering design access to trades.

Inability to instruct consultants directly.

Little on site engagement.

Engaging with Contractors design managers where the driving agenda of the contractor pressures their design managers to reduce costs.

Continuity of specialists consultnats pre/post Novation.

3.7.4 Value management/cost cutting

3.7.4.1 Cost cutting or builder profit maximisation is the project priority

Cost driven decisions that are not necessarily best value for the long term.

Obsession with cost prevents sensible discussion about the best design outcome.

Cost cutting to design elements to increase builder's margin.

Cost as primary project driver.

Can be profit first not project first.

Focus of builder on cost and their own profit.

Quality needs to be measured in contract outcomes.

Difficulty during negotiation with builder, as costing becomes priority for builder rather than quality.

80 Albion | Squillace Architects | Photographer: Terence Chin

3.7.4.2 Value management is generally equated with cost cutting

> Cost cutting disguised as value management.
>
> Contractor focus on cost reduction incentivised by profit on low margins, value management.
>
> Leading to reduction in design/material quality through change and substitution.
>
> Value management not to get better value but to increase a contractors profit.
>
> The VM - which often gets tied in to how much the builder can get back in thier pocket.
>
> Contractor uses value management processes to save costs at the expense of quality and design aesthetics.

3.7.4.3 Value management or cost cutting that diminished design

> The design is 'valued' down.
>
> Quality and details in the original design are lost or value managed.
>
> Value management of design intent.
>
> Value management that is sold as value management but is reallly scope reduction not being.
>
> Critically assessed by clients as they get lured by false savings over quality outcomes.
>
> Loss of some amenity. Contractor often reduces the clients expectations in order to achieve the value goal.
>
> Value management can impact on design quality.
>
> Value management can strip the design of key elements.
>
> Value management and substitution driven by cost cutting not intelligence.

3.7.4.4 Value management or cost cutting that diminishes or substitutes with inferior materials

> Quality materials are VE'd out deceptively by Contractors.
>
> Builder always requesting cheaper materials.
>
> Project Managers value managing costs by substitution of inferior materials and fixtures.
>
> Cost driven substitutions.

3.7.5 Communication/relationship with Original Client

3.7.5.1 No client engagement after novation

No engagement with client post-novation.

Removes client architect relationship.

Open communication with principal client.

Loss of contact with client.

Removal of direct communication with the client.

Loss of client contact during the crucial construction phase of a project.

Disconnect from original client/end user.

Being managed by contractor out of key decision making with client.

Architect cannot give independent advice to original client.

3.7.5.2 Impacts of no or arm's length relationship on project outcomes

Distancing of client relationship results in compromised design quality oversight.

Architects advice and Defects lists can be ignored by contractor, and is hidden from the client.

Not being able to notify the Owner of changes to materials, fixtures or design elements.

Ensuring that the original client is aware of construction quality issues.

Establishing positive working relationship with a new builder and maintaining the relationship with the original client.

3.7.5.3 Balancing legal, ethical or professional obligations and expectations

Inexperienced clients.

Client / Architect agreement needs to be addressed prior to Novated contract.

Client still expects a direct relationship with the Architect- some contracts now incorporate that relationship which can place the Architect in difficult situations with 2 clients with different goals.

Client still wanting 'access' to our independence even though we are no longer working for them.

Loss of accountability.

Representing client and design intent and towing the line with contractor.

Clients think you still work for them.

Unable to be on end users/clients side after novation.

Mixed feeling who is the actual client: builder or client.

Protecting client's interests; conflicted loyalties.

Architect cannot give independent advice to original client.

Architect has multiple masters - clarity of concept and contract required to manage conflicting requests.

How do you protect the client? you can have one client and once you are novated the builder is your client?

The de-professionalisation of client side/ Principal.

3.7.6 Costs and commercial viability for architects

3.7.6.1 Securing or negotiating adequate scope and fees

Securing a balanced Contract and Scope.

Ensuring scope of work is clearly defined and respected.

Commercial terms for contractor engagement and capability of Contractor nominated by the Client impacts on the architects ability to deliver a great project, yet it is something often unknown and uncontrolled at the commencement of a project when fees and programs are set. Inevitably, commercial pressures are passed on to the architect in the form of non-payment of fees, failing to follow through with architectural instructions or documentation, repeated cycling of contractor project staffing, and other unreasonable requests; Construction Services are often limited by hours or specific scope, yet Consultant Certificates are often worded strongly by default to cover thorough site inspections and comprehensive understanding that fees often don't accommodate.

Unsustainable fees for services provided.

Construction phase - managing the principal contractors expectations regarding availability, time and fees.

Adequate fees.

DNC too early and any elements not documented clearly will not have sufficient budget allowed.

Fees often less.

Unresolved/incomplete design elements and therefor uncosted design elements.

Reduced fees yet all risk transferred to architect with onerous clauses.

3.7.6.2 Scope creep or unpaid re/work

Scope creep.

Loss of control of cost of variations.

Scope creep around Contractor VE options.

Redesign over and over to meet client price when builder changes or is brought on too late.The cost of re-designing to the Main Contractors referred construction requirements can create extra risk and costs to Architects.

Controlling scope-creep for deliverables and retaining profitability through the construction phase services.

Challenge to obtain fees for variation.

Reduced fees but not reduced work or responsibilities.

Not able to get additional payment potentially.

Limited time and fees allowed for architects to carry out their professional obligations and maintain quality, with excessive risk transfer on items outside our control.

Consultant profit - Consultants can be forced to redocument multiple times over without payment.

3.7.6.3 Insecure, unreliable or untimely payment

Unethical payment process/schedule; contractor imposing unrealistic program for delivery of contract documentation without sufficient consultant or subcontractor coordination and use of set-off clauses.

Continual threats to payments.

Trying to be paid.

Do not get paid on time.

Payment of fees due.

Builder delays payments.

Not being paid fully prior to novation.

3.7.7 Risk

3.7.7.1 Responsibilities and potential liability for matters outside of the Architect's control.

Architect made responsible / liable for elements of project beyond their control.

We're still left with liability of compliance statements, though we have no independence to enforce. Using statements and certificates to force the builder into a course of action can get very confrontational very quickly.

Liability remains even though control is gone.

Limited time and fees allowed for architects to carry out their professional obligations and maintain quality, with excessive risk transfer on items outside our control.

Extremely serious shortcuts which contractors take in procurement and certification of building components which affect safety of users and public; unfair and onerous consultant agreements which place too much responsibility on architects, but do not bestow any authority on architects to advise or instruct.

Architect has lots of responsibility but limited access to infromation in order to fulfill duties.

Unbalanced risk placement.

Potentially same liability with less control.

Architect responsible for decisions made by builder.

This notion that the builder is the lead, they believe they are solely responsible for risk and liability of the project. Hence they would often take on risk that consultant may not approve. However, all party should agree in order to reduce risk in potential liability and suits after completion.

3.7.7.2 Risks resulting from contracts

Inconsistent contract conditions.

Lack of clarity of scope of services and associated risk.

Back to back contract with head contract - risk too high.

Unreasonable contract terms due to subcontractor procurement model thinking.

Contractual obligations of the agreement.

Onerous Consultancy Deeds novated to D&C Contractor.

Unreasonable contracts.

3.7.7.3 Transfer of risk to Architects

Being forced to approve sub-standard materials and finishes.

Conflict of interest.

To ensure that the onus is on the builder when they take risks on a project such as building without seeking shop drawing approval.

Places considerably more risk on the design team.

Reduced fees yet all risk transferred to architect with onerous clauses.

Novation creates greater risk for designers in construction process.

Unless specified as 'not for substitution' it is too easy for inferior products to be put forward - often the Architect is asked to approve these substitutions which can be a risk.

Main Contractor is 100% liable which means the Architect can be exposed as the Main Contractor is responsible for the Architect in a D&C Contract. The Architect really needs to ensure perform their due diligence.

Shared liability.

Still carry responsibility.

Transfer of risk.

Its offers much higher risk to the consultant.

3.7.7.4 Financial and operational risk

In two instances of DNC contracts over the last 5 years, we've had the contractors go into liquidation soon after the completion of the projects. This has resulted in incomplete DLP phases that become difficult to remedy and again, requires additional services that have no allocated fee.

Reduced fees and therefor time for design and detailing with no reduction in liability.

Overtime is necessary to achieve the project timeframes resulting in staff burnout.

Understanding risk profiles and setting fees accordingly.

3.7.7.5 Long-tail impacts of risks

Increased long term risk of problems for owner.

Addressing defects.

Increased risk.

More unknowns of what is built.

Reputation Risk; Loss of quality, yet name remains as designer.

Requirement for 10year PI cover.

Architectural reputation of final result.

High risk of liability when things go wrong.

3.7.8 Time and efficiency

3.7.8.1 Issues around supervising, coordinating and administering.

Coordination of work.

Consultant coordination.

Must have a Suprintendent to administer the contract.

joinery made in china - higher level of coordination.

Co-ordination never gets done properly.

Poor project management and poor information communication (e.g. consultants engaged too late and lack of key information to properly advise).

Transition of service from Client to Builder can be clunky.

Lack of co-ordination of all disciplines due to the 'rushed' nature.

Duplication of coordination.

3.7.8.2 Time pressures and indequate time to get things done

Design focus shifting too quickly to buildability issues prior to the design being finalised.

Speed of construction pushing design outcomes.

Ridiculously short delivery periods generally.

Architect forced to approve (poor) substitutions under 'time pressure', everything is urgent.

Inadequate time in programme as presented during the tender process to adequately finalise the design.

Design and Construction happen simultaneously.

Time pressures to document.

Reduced times for the design team to consider the impact of design decisions.

Limited contract admin/site time, lack of graduate exposure to construction detailing.

Time to consider design solutions and complete DD at novation.

Lack of leadtime on materials.

Time constraints.

Unreasonable pressures and deadlines for variations due to Contractor's 'critical paths' in the constructions program. Architect's responsibilities and competencies often undermined and targeted by contactors.

Pace in which things happen - rushing the design process and documentation process.

imposed pressure for completion in difficult environments.

Fast tracking & document co-ordination issues.

Early start to construction.

Insufficient front end time to resolve details.

3.7.8.3 Time and resources wastage

Re-documentation has time, cost and quality implications due to re-working of original design.

Contractors don't understand design development requirements or factor these in to their programs.

Client relationship becomes separated. Re appointment process is difficult to tie in with head contract. Big time wastage.

Project hiatus during head contract negotiation – inefficiency.

3.7.9 Other

A range of diverse comments were categorised as other. Examples include:

Stressful conditions for design team.

Fair consultancy agreement.

Poor briefs.

Transparency of delivery process.

Lack of overall project strategic vision in decision making.

Fundamental difference in aims of builder to client/user/design team.

Lack of understanding of the fundamental change in incentives between original client and builder once novated.

Defining completeness of novated building models.

Change management process.

Difficulty in establishing difference between DD and Variation.

Requires a strong owner to resist DNC steamroller.

Lack of clarity of scope of services and associated risk.

Time spent educating contractors on the benefits of good design.

Finding a quality committed contractor.

How to stop architects taking projects off each other.

Back to back contract conditions as part of the deed of novation that is not commensurate with builders programme or method of delivery.

In house counsel; 3rd parties to contracts eg. financiers .

We're kept more 'in the dark' on project budget.

Clarity of scope and fees. varies wildly from contractor to contractor.

Architects leaving the industry to become DMs or PMs; Poor outcomes for the built environment.

Have the idea expunged from the building industry.

Definition of design completion and process for closing out design.

Lack of trust that we will actually be novated. Weakness of novation parts of a client architect agreement.

Defining % complete of documents when novated.

Expectation that we just document for construction when DD has not been completed due to the contractual process.

Poor management skills by architects.

Level of knowledge, experience and quality of work from consultants BIM applications.

Better to retire than be novated.

Consistency of contract conditions and novation.

Ownership of design.

Lack of clear standard of documentation at point of novation.

GMP (Guranteed Maximum Price) at DD does not allow an accurate tender.

Design consultant (engineering) information.

Being forced to sign over copyright.

Transparency.

Weakened position within the procurement process.

Approval process.

Novation agreement does not recognise the changed role of architect in the delivery process.

Dealing with unhappy purchasers after the event.

Ace Hotel | Bates Smart with Flack Studio + Fiona Lynch | Photographer: Anson Smart

4. PART 2: DETAILED FINDINGS – EVIDENCE FROM PROJECTS

4.1 PROJECT AND RESPONSE INFORMATION

In Part 2 of the Novation Survey, practices were asked to provide detailed information about their specific experiences about three specific novated projects that they had *completed most recently* for which their practice had been engaged and which had involved novation of their architectural services.

Practices were asked to complete a separate survey for each of the three[9] project examples they chose to use.

Each 46 question survey completed comprised 36 main questions with a further 10 sub-questions For example, one single main question asked practices to separately appraise whether they were "*allowed sufficient time for research, co-ordination and assessment*" across seven separate parameters of:

- Requests for Information
- Shop drawing reviews
- Coordinate drawings
- Sample/prototype reviews
- Material substitutions
- Contractor led design proposals/changes
- Value management changes

In this example each parameter was asked to be appraised according to the four-point ordinal-type scale of, *Always, Often, Sometimes, Never,* (or, additionally, *Don't know*).

Therefore, sub-questions like this resulted in a total of 46 main questions and sub-questions, combined, for which responses were sought. This required respondents to answer a total of 108 main questions or 138 main and sub-questions for all three project examples. Each project example required a separate sub-form to be completed. They appeared sequentially in the Survey Monkey instrument.

There was an additional open-ended comments question placed at the end of the Part 2 which related to each of the three project examples. Response rate data is not provided here, as the question put was of a general nature and not necessarily related to any of the specific project examples for which response were sought. The open-ended question asked, "*Thinking more deeply about the process of novated contracts, do you have any other comments you would like to make about DNC contracts more generally?*"

266 practices responded fully or partially to both Part 1 and Part 2 (Part 2 being the Project Examples). Table 1 shows that practices provided complete or partial responses to Part 2 for a total of 484 individual projects.. Of 266 respondents to any of Part 1 or Part 2 of the Novation Survey, 29 did not attempt a first project example. Therefore, only 237 of 266 practices responded with information in relation to one or more project examples. Two-fifths (40.1%) of these 237 practices attempted to provide information for three project examples.

Table 1: Attempts at completing Part 2 Project Example questionnaires

Attempted	Project Example No. 1	Project Example No. 2	Project Example No. 3	TOTAL
n	237	152	95	484
% of all respondents	89.10%	57.14%	35.71%	

Oxford House | Public Design Studio | Photographer: Anson Smart

However it should be noted that no one question had a denominator of 484. As Table 2 demonstrates, in providing a more accurate picture of the responses, the majority of project example surveys were not fully completed. In Table 2, analysis of the completions of the thirty-six main questions only, shows that:

- 'most' questions (an arbitrary 32 or more) were answered for 408 project examples.
- 'almost all' questions (an arbitrary 35 or 36) were responded for 393 project examples.
- 'all' questions (36) were responded for 361 project examples.

On this basis it is reasonable to conclude that substantial data was obtained for 408 project examples.

Note that on the basis of individual respondents, there were 66 respondents who completed 36 questions for all three project examples (data not displayed in these tables).

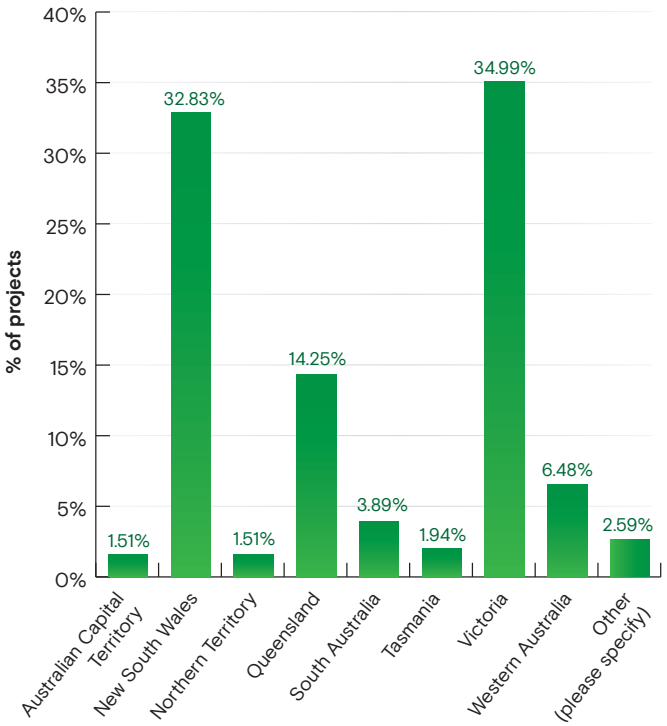
Table 2: Summary question response data for Project Examples

Number of Main Questions Responded	Project Example No. 1	Project Example No. 2	Project Example No. 3	TOTAL
All (36 questions) n	180	104	77	361
%	75.95%	68.42%	81.91%	
Almost all (35 or 36 questions) n	192	118	83	393
%	81.01%	77.63%	88.30%	
Most (32 or more questions) n	194	126	88	408
%	81.86%	82.89%	93.62%	

4.2 STATE

The largest proportion of project examples reported were those which had taken place in Victoria (35%) followed by New South Wales (32.8%). Combined, almost precisely two thirds (67.8%) of project examples reported were from the two largest states, and together with Queensland more than four-fifths (82%) of examples were from the three east-coast mainland states.

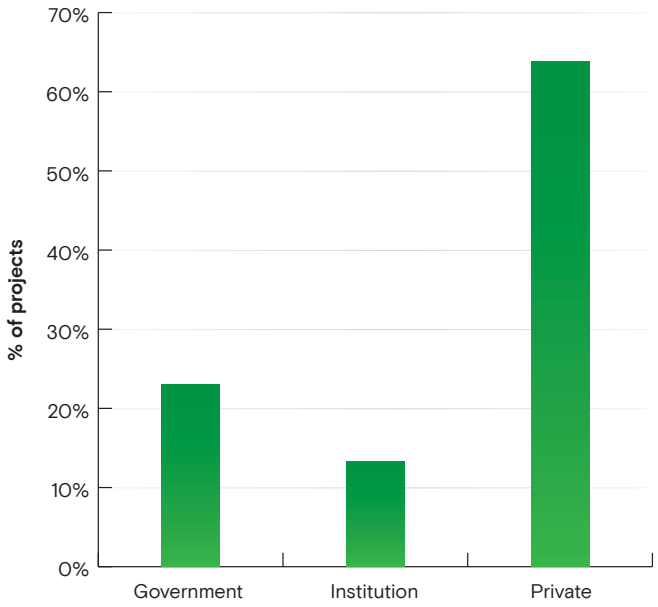
Figure 8: In what sate or territory was the project built? (n=463)



4.3 SECTOR

Projects were predominantly from the private sector (63.8%), followed by government (24%) and institutional clients (13.2%).

Figure 9: From what sector was the client? (n=461)



Atrium House | Thursday Architecture | Photographer: Anne Stroud Photography

Ultimo Public School | DesignInc Sydney, Lacoste+Stevenson and bmc2, architects in association | Photographer: Brett Broadman

4.4 PROJECT TYPOLOGY

The single largest group representing almost one third (33%) of projects were those categorized by practices as 'Residential', The next largest group was commercial (21%). The remainder comprised a broad range of typologies projects including Education (13.7%), Health (7.6%), Civic (5.4%) and Sporting (3.5%) and Other (14.97%).

4.5 FOREKNOWLEDGE OF PROJECT NOVATION WHEN SUBMITTING TENDER

Practices were asked whether they were aware that the contract would be novated when they submitted their original fee at the pre-design stage. For 62.2% of projects, practices did know, and in a further 12.1% project examples, practices assumed that it would be novated, so that combined, for almost three-quarters of (74.3%) of 461 project examples, practices were broadly aware the project would be novated. For somewhat under a quarter (22.8%) of project examples practices did not know the project would be novated at the time they submitted their fee, and for 2.9% of projects, practices simply did not know what the state of knowledge was about novation at the time of submitting a tender.

Figure 10: What typology was the project? (n=461)

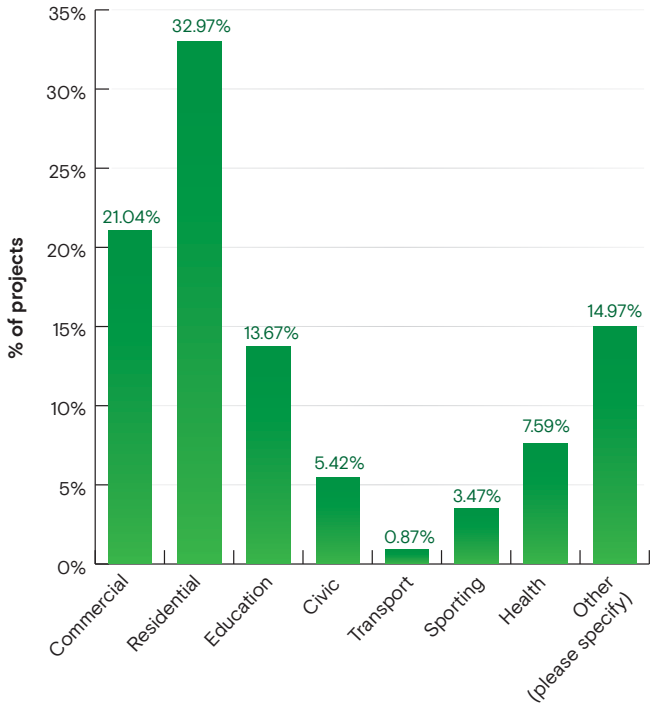
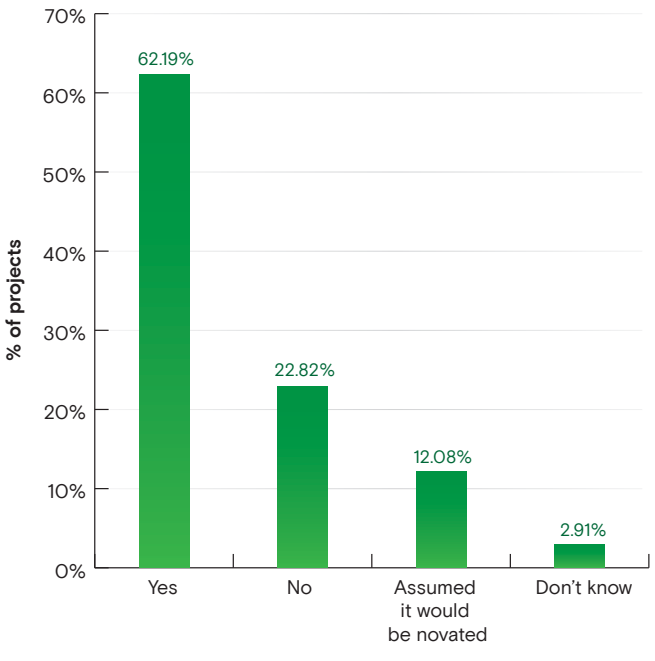


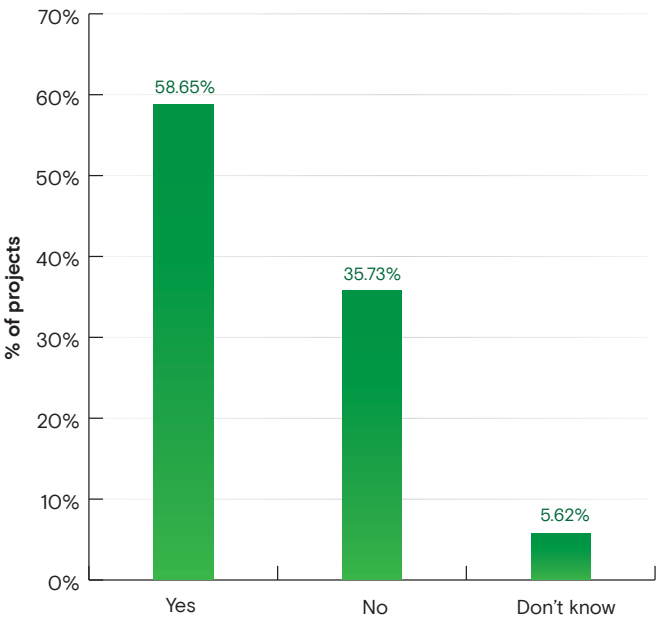
Figure 11: Did you know from the original Client when submitting your fee that the project was to be novated?



4.6 FOREKNOWLEDGE OF DESIGN / DOCUMENTATION STAGE AT POINT OF PROJECT NOVATION WHEN SUBMITTING TENDER

Practices were asked whether they were knew at which stage of design/documentation that projects would be novated when they submitted their tender. For 58.7% of projects, practices did know while more than one-third (35.73%) of projects, practices did not know at which stage of design/documentation the projects would be novated. For more than one in twenty (5.6%) of the project examples, practices simply did not know what the state of knowledge was about the stage of design/documentation at which novation would occur at the time of submitting a tender.

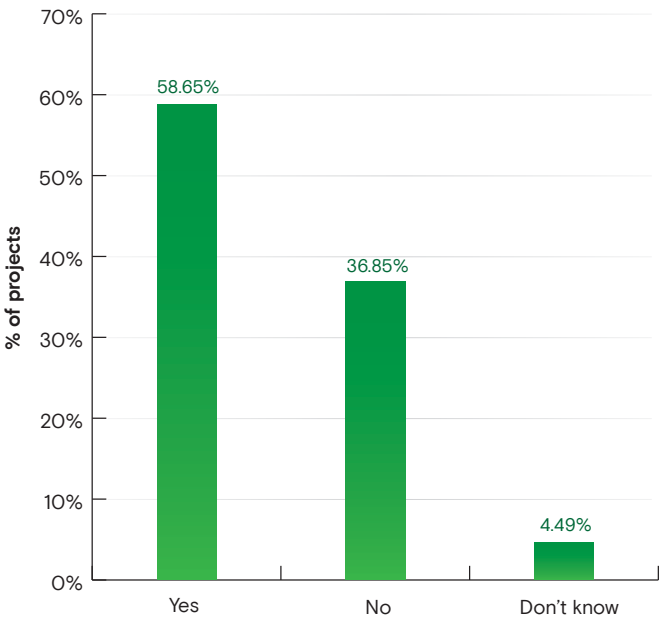
Figure 12: Did you know from the original Client at the time of submitting your fee at what stage of design/documentation you would be novated?



4.7 FOREKNOWLEDGE OF AN OVERALL PROJECT PROGRAM OR TIMELINE TO COMPLETION OF CONSTRUCTION ON WHICH TO BASE FEE

Practices were asked if they were provided with an overall project program or timeline to completion of construction on which to base their fee. For well more than half (58.7%) of projects, practices were provided with an overall project program or timeline to completion of construction on which to base their fee. For somewhat more than one third (36.9%) of projects, practices this did not occur. For almost one in twenty (4.5%) projects, practices did not know if they had been provided with a project program or timeline upon which to base their fee.

Figure 13: When you submitted your fee with the original Client, were you provided an overall project program or timeline to completion of construction on which to base your fee? (n=445)



4.8 FOREKNOWLEDGE OF TOTAL CONSTRUCTION COST (TCC) BUDGET IN ASSOCIATION WITH A BRIEF WHEN SUBMITTING TENDER

Practices were asked if they were provided with a Total Construction Cost (TCC) budget in association with the brief when they had submitted their tender to the original client for the project. For slightly more than half (51.1%) of projects, practices were provided with a Total Construction Cost (TCC) budget while for 44.1% of projects a TCC budget had not been provided. For almost one in twenty (4.7%) of projects, reported, practices did not know if a TCC budget had been provided.

4.9 ABILITY TO PROVIDE STRATEGIC ADVICE ON THE COST PLAN WHEN WORKING WITH THE ORIGINAL CLIENT IN DEVELOPING THE DESIGN

Practices were asked, if they were provided access and ability to provide strategic advice on the cost plan when working with the original Client in developing the design. For slightly more than half (50.6%) of projects, practices were provided with access to the cost plan and were able to provide strategic advice on the cost plan while for 44.5% of projects this was not possible. For almost one in twenty (4.9%) of projects, reported, practices did not know if they had been able to access the cost plan and/or provide strategic advice.

Figure 14: When you submitted your fee with the original Client, were you provided a Total Construction Cost (TCC) budget in association with a brief? (n=444)

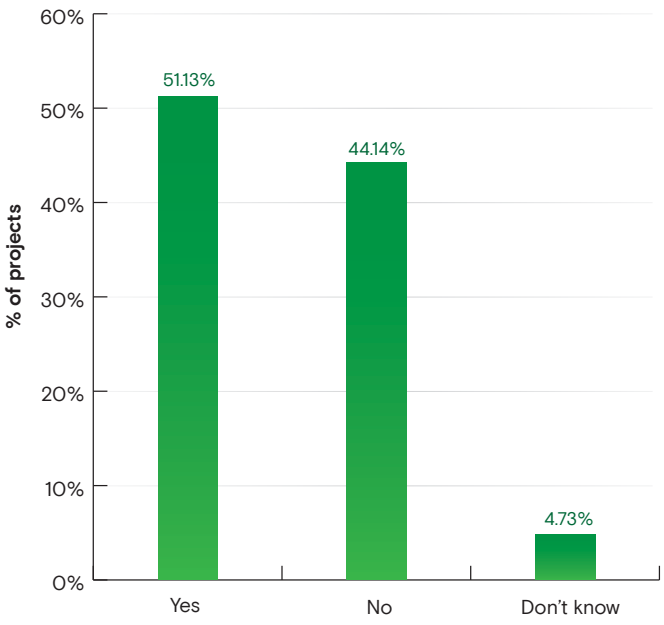
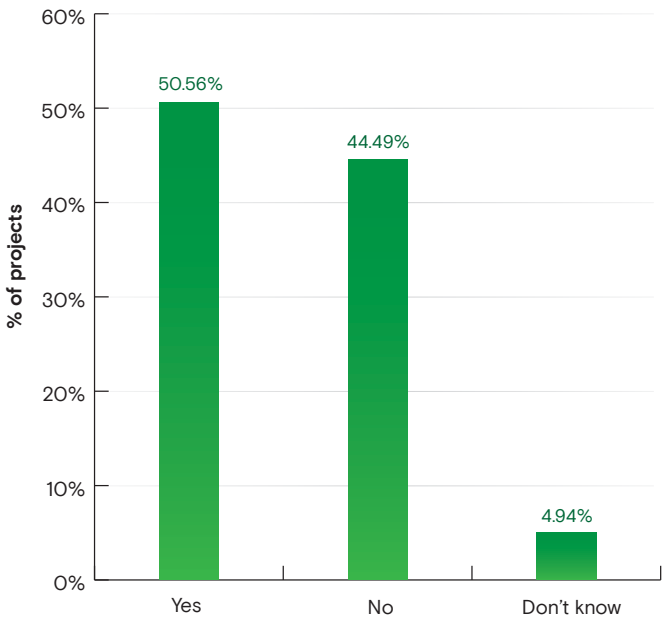


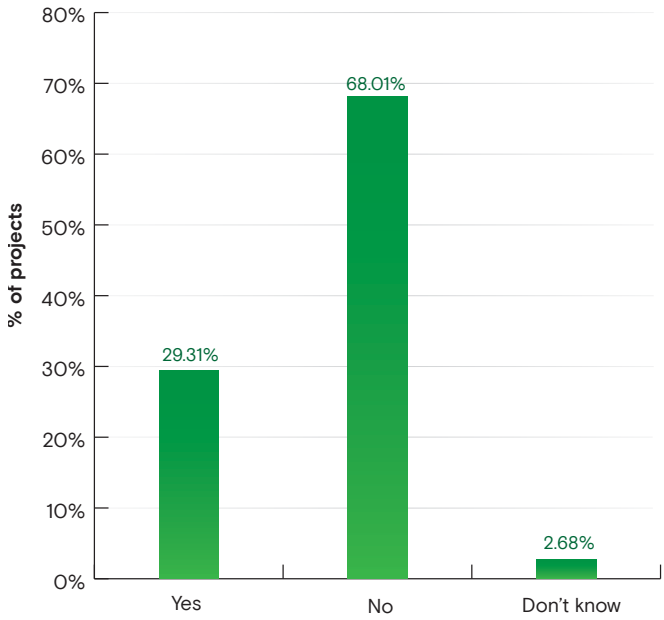
Figure 15: When working with the original Client in developingthe design, were you provided access and ability to provide strategic advice on the cost plan? (n=445)



4.10 ENGAGEMENT OF MAJOR ENGINEERING SUBCONSULTANTS

Practices were asked, if they had engaged major engineering sub-consultants. This had occurred in less than one third (29.3%) of projects while for more than two-thirds (68%) no major engineering sub-consultants had been engaged by the practice.

Figure 16: Did you engage major engineering sub-consultants? (n=447)

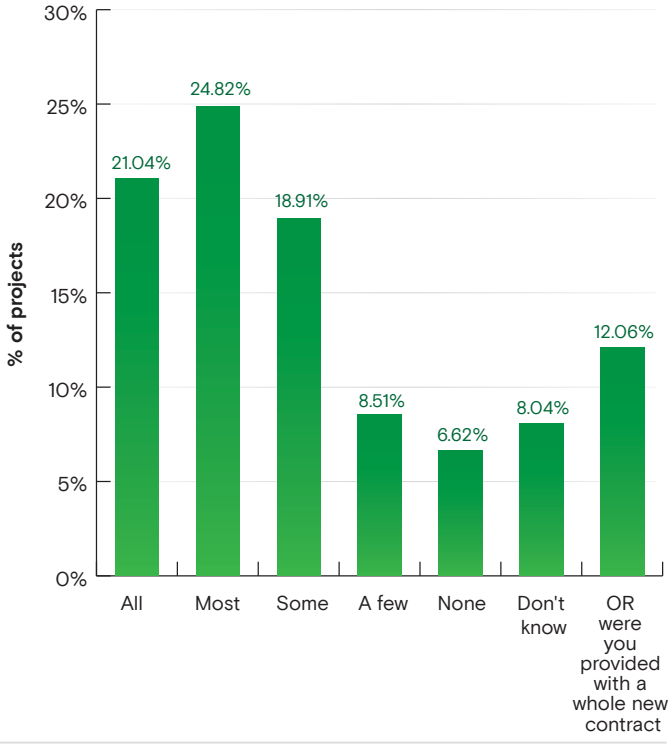



231 Napier Street | Edition Office| Photographer: Rory Gardner

4.11 TRANSFER OF KEY TERMS AND CONDITIONS FROM ORIGINAL FEE AGREEMENT, INTO THE NOVATED CONTRACT

Practices were asked if the key terms and conditions, including exclusions, were transferred to the novated contract when it was novated. For somewhat less than half (45.9%) of projects, most (24.8%) or all (21%) of the key terms and conditions, including exclusions, were transferred to the novated contract and for almost two-thirds (64.8%) of projects, some (18.9%) most or all of the original fee agreement key terms and conditions were transferred to the novated contract.. In more than one quarter of projects (27.2%) the contract terms and conditions (Ts & Cs) changed substantially at novation. This comprised 15.1% of projects, where only minimal transfer of Ts & Cs occurred being either a few Ts & Cs (8.5%) or none (6.6%). In a further 12.06% of projects, an entirely new contract was provided. With respect to 8% of projects reported in the sample, survey practices did not know to what extent if any, key term terms and conditions from the original contracted made their way into the novated contract.

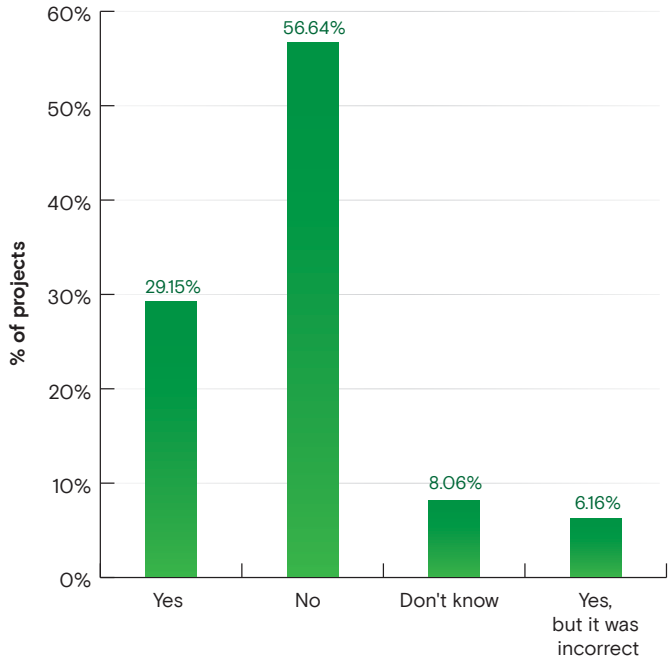
Figure 17: When your original fee agreement was novated, did your key terms and conditions, including exclusions, make it into the novated contract? (n=423)



4.12 KNOWLEDGE OF THE TOTAL CONSTRUCTION COST FOR THE SUCCESSFUL TENDERER-

Practices were asked if they were provided with the Total Construction Cost (TCC) of the successful tenderer for the project. For more than half of the projects (56.6%), practices were not provided with the TCC, and for a further 6.2% of projects, practices were provided with an incorrect amount. In less than one third (29.2%) of projects, practices were provided with TCC. For 8.1% of projects, practices did not know if they had been provided with the amount with the TCC for the successful tenderer.

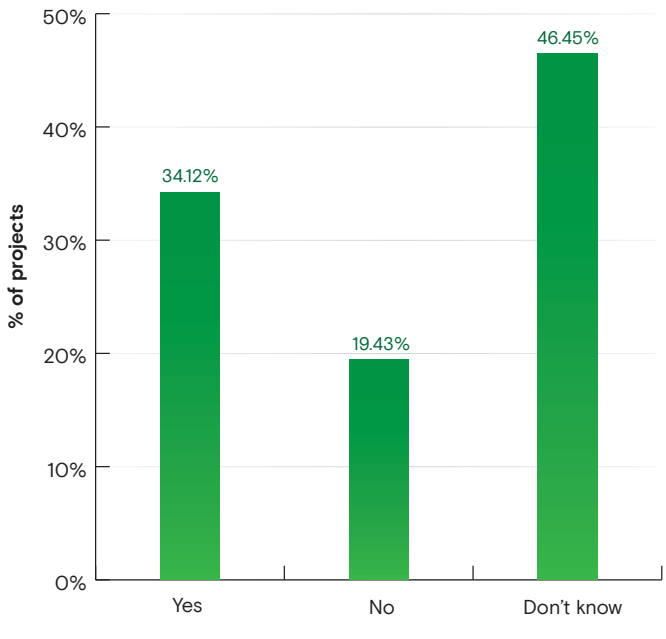
Figure 18: When the project was tendered to Contractors, were you provided the Total Construction Cost for the successful tenderer? (n=422)



4.13 COMPARATIVE TOTAL CONSTRUCTION COSTS

Practices were asked if the Total Construction Costs at tender were higher than the originally (projected) Total Construction Costs (TCC) for the project. Unsurprisingly, given the response to the previous question, for almost half (46.5%) of the projects reported, practices did not know (as they had not been provided with the successful tenderer's TCC). For more than one third (34.1%) of projects, the TCC was higher and for almost one-fifth (19.4%) of projects the tenderers TCC was not higher.

Figure 19: Was the Total Construction Cost at tender higher than the original TCC? (n=422)

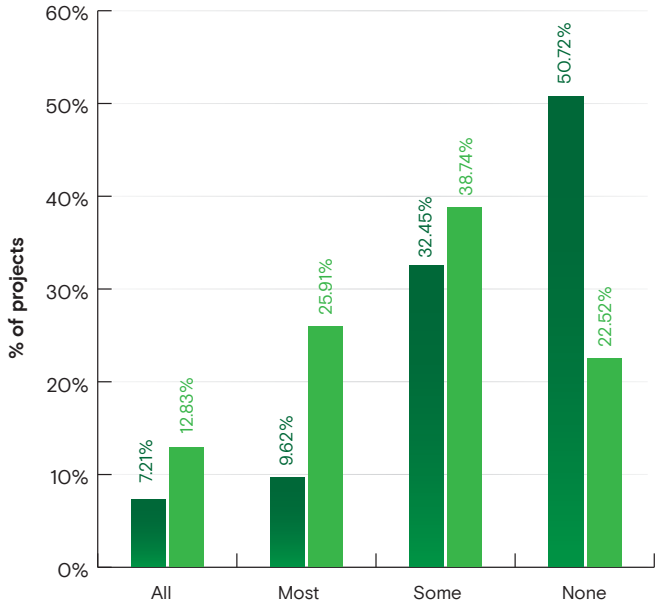



Adelaide Railway Station Entry | ARM Architecture | Photographer: Renae Schulz

4.14 INCLUSION IN DISCUSSIONS DURING TENDER AND CONTRACTOR AWARD

Practices were asked if for the particular project they had been part of discussions in relation to the contractor selection process and value management during the awarding of the tender to the contractor. Across at least 413 projects, practices were more likely to be in involved in discussions about value management than contractor selections with the involvement in all or most discussions about value management occurring for almost two-fifths (38.74%) of 413 projects. On the other hand, in only about one in six projects (16.83%) were practices involved in all or most discussion about contractor selection and for a little over half (50.72%) of projects practices had no involvement in discussions about contractor selection.

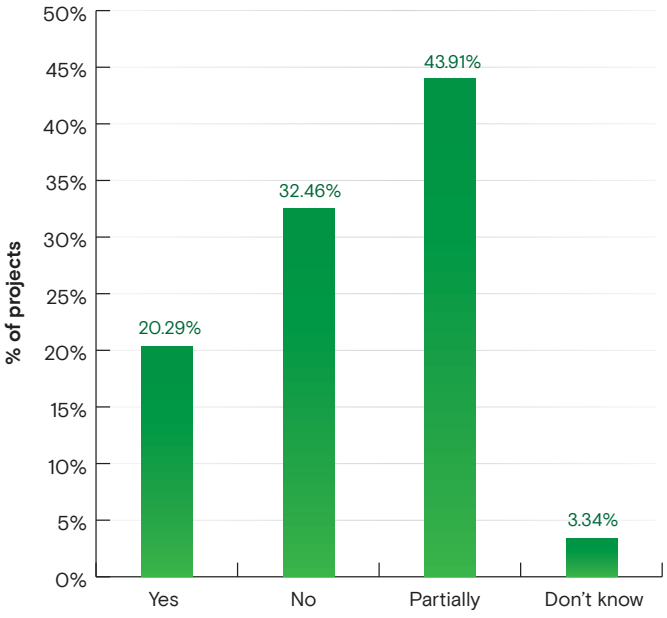
Figure 20: Were you part of the following discussions during tender and contractor award?



4.15 NEGOTIATION OF KEY DESIGN VARIATIONS INTO THE OVERALL CONSULTANT SCOPE AND FEES AT THE TIME OF NOVATION

Practices were asked if they were able to negotiate key design variations into the overall consultant scope and fees at the time of novation, such as to include value management, purchaser variations, tenancy fit out co-ordination, substitution analysis, number of redesign options, and/or other potential anticipated changes. For only slightly more than one-fifth (20.29%) of projects, practices were fully able to negotiate key variations. For 43.91% of projects practices were able to partially negotiate design variations, and for 32.46% of projects, practices were unable to negotiate design variations.

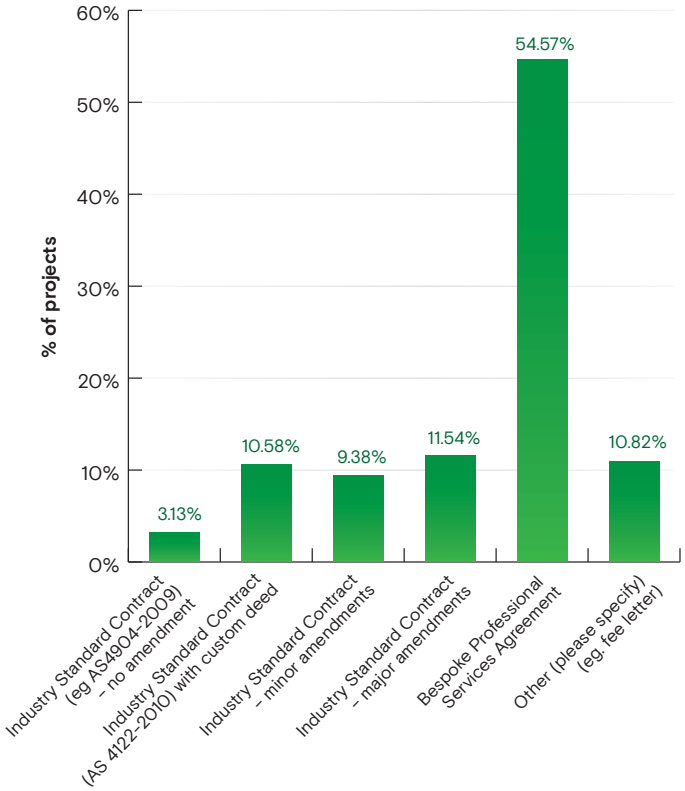
Figure 21: Were you able to negotiate key Design Variations into the overall consultant scope and fees at the time of Novation, such as to include Value Management, Purchaser Variations, Tenancy fitout co-ordination, substitution analysis, number of redesign options



4.16 PROFESSIONAL SERVICES AGREEMENT USED FOR NOVATED PROJECTS

For somewhat more than half (54.47%) of 416 projects practices reported that a bespoke professional services agreement was used in the novation process when compared to other contract types. Only 3.13% of projects used an unamended industry standard contract. Otherwise various industry standard contracts were used with varying degrees of amendments including custom deeds. Among the 10.82% of "other types of professional services agreement used in projects, virtually one quarter (24.44%) were indicated as being a "fee letter', and a further 11.11% some other type of letter such that more than one third (35.55%) of these "other" agreements used in projects were executed by a letter. In overall terms this was only 3.85% of all agreements for projects.

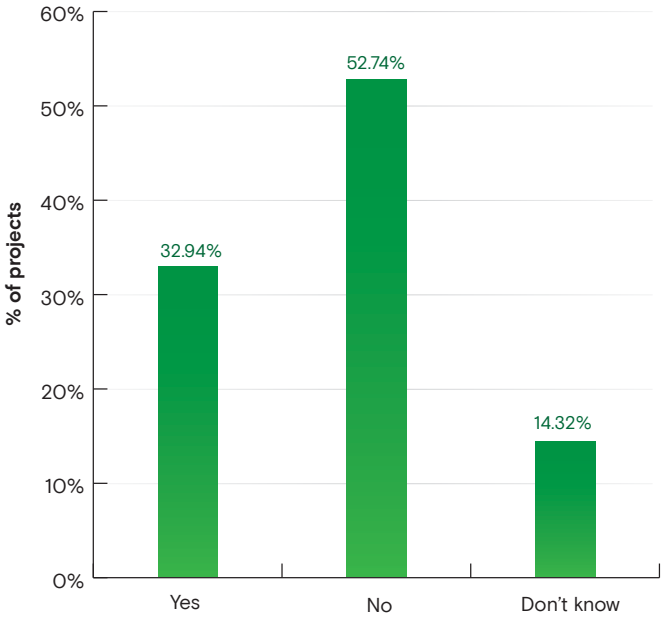
Figure 22: What was the Professional Services Agreement by which you were finally novated on? (n=416)



4.17 NOVATION DEED PERMITTED CONTACT WITH THE PRINCIPAL OR REPRESENTATIVE

In marginally less than one third (32.94%) of projects, the novation deed had a clause which allowed the architect to contact the Principal or Principal's representative if there was a significant departure from the brief. More than half (52.74%) of projects did not have this clause and 14.32% of practices did not know if such a clause was in the deed of novation.

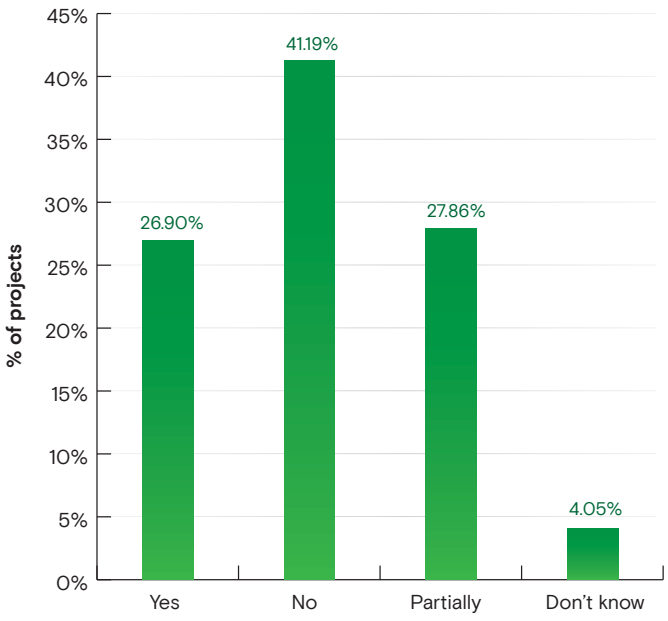
Figure 23: Did your novation deed have a clause which allowed you to contact the Principal or Principals representative if there was a significant departure from the brief? (n=419)



4.18 KNOWLEDGE OF OTHER CONSULTANTS' SCOPE OF WORKS

Practices were asked if they knew the other consultants' scope of works in order to determine what was assumed in their own scope of works for the project. For slightly more than one quarter of projects reported (26.9%) practices did have knowledge of the other consultants' scope of works, and for an approximately similar proportion of projects (27.86%) practices partially knew. For the large remainder of projects reported in the survey (41.19%), practices did not know. For approximately one in twenty-five projects that were reported in the survey, practices did not know what had been their practice's state of knowledge about other consultants' scope of works at the time of determining their own scope of works.

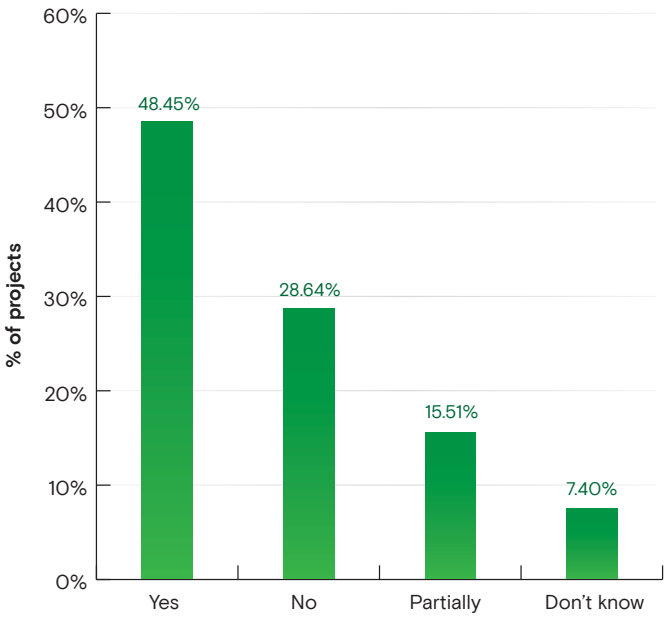
Figure 24: Did you know the other consultants scope of works in order to determine what was assumed in your own scope of works? (n=420)



4.19 ACCESS TO THE PRINCIPAL'S PROJECT REQUIREMENTS PRIOR TO NOVATION

Practices were asked if they had access to the Principal's Project Requirements (PPR) prior to novation. In essence, this is the client's brief to the contractor prior to novation. Practices did have access for only slightly less than half (48.45%) of the 419 projects reported. In a further 15.51% of projects reported practices had partial access, while for well over a quarter (28.64%) of projects, practices did not have access to the PPR. For 7.4% of projects, practices did not know whether there had been access to the PPR prior to novation.

Figure 25: Did you have access to the PPR (Principals Project Requirements) prior to novation? (n=419)

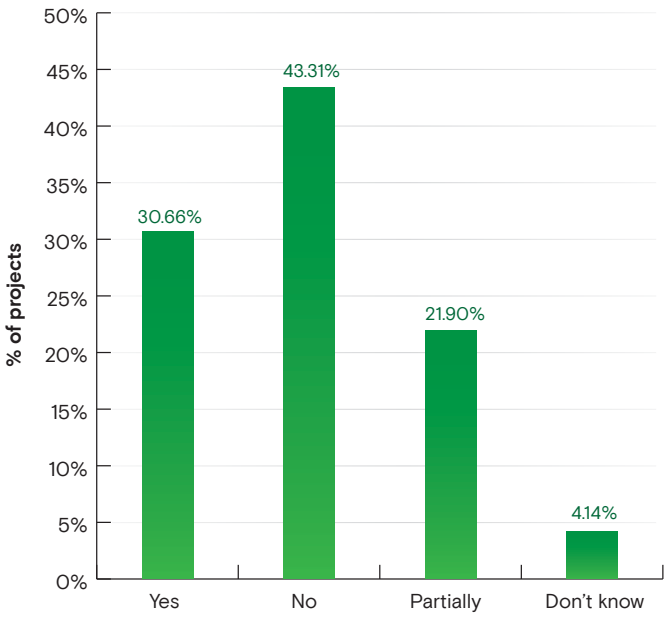


4.20 ACCESS TO AND AWARENESS OF THE DESIGN-AND-CONSTRUCT CONTRACT DOCUMENTS

Practices were asked if the project had provided their practice with access to the design-and-construct (D&C) contract documents and/or if the practice had been aware of what specifically constituted the contract documents by which the Contractor was engaged.

In just over half of projects (52.56%) practices had access and/or awareness (30.66%) or at least partially (21.9%). However for more two-fifths (43.31%) of projects, practices had no access and/or awareness of the D&C Contractor Documents or what constituted the contract documents by which the Contractor was engaged. For 4.14% of projects practices did not know what the access and/or awareness had been.

Figure 26: Did you have access to the Design and Construct Contract Documents and/or were you aware of what specifically constituted the Contract Documents by which the Contractor was engaged? (n=411)



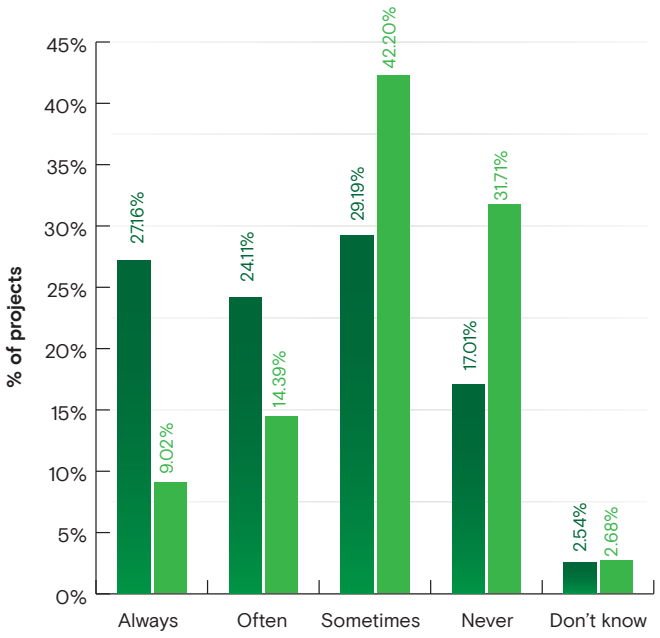
4.21 INCLUSION IN STRATEGIC DECISION-MAKING PROCESSES AT PROJECT CONTROL GROUP (PCG) MEETINGS

Practices were asked if they had been included in strategic decision-making processes at Project Control Group (PCG) meetings before and after novation of the project. The responses show a dramatic difference in practices' inclusion in strategic decision-making processes at PCG meetings before and after novation. In a little more than half (51.27%) of projects, the practices were always (27.16%) or often (24.11%) included before novation. However, after novation there was a large reduction in the inclusion in the strategic decision-making processes at PCG meetings. After novation, in only 9.02% of projects practices were always included and only 14.39% of projects they were often included. For close to three quarters of projects (73.91%), after novation, practices were only sometimes (42.2%) or never (31.71%) included in strategic decision-making processes at PCG meetings. These differences before and after novation are statistically significant[10].

Table 3: How often practices were included in PCG meetings before vs after novation

	Before novation	After novation
Always	107	37
Often	95	59
Sometimes	115	173
Never	67	130
Total	**384**	**399**

Figure 27: Were you included in strategic decision-making processes at Project Control Group (PCG) meetings?

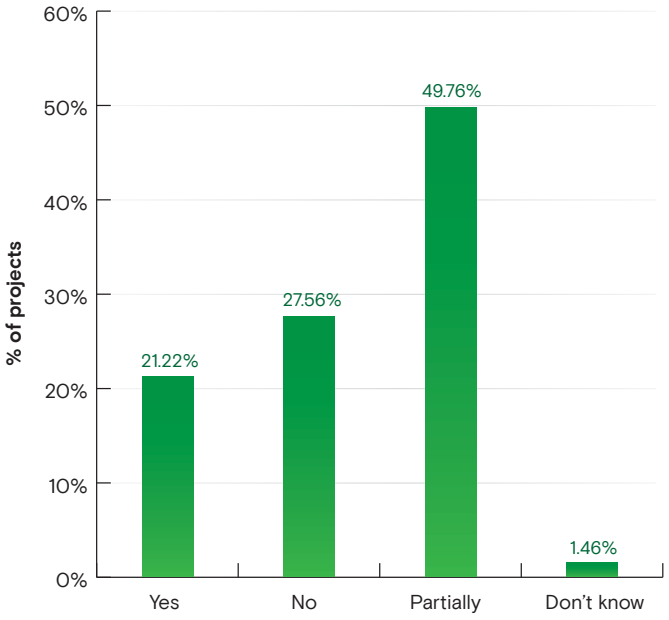


10 X2 (df = 3, N = 783) = 74.011, p = <.01

4.22 PERCEIVED ABILITY TO EFFECTIVELY PROTECT THE ORIGINAL PRINCIPAL'S INTERESTS AFTER NOVATION.

In only 21.22% of projects reported in the survey did practices feel they were able to effectively fully protect the original principal's interests after being novated to the Contractor. For almost precisely one-half (49.76%) of projects reported, practices felt that they had only been partially able to protect the original principal's interests and for more than one-quarter (27.56%) they felt they could not effectively protect the original principal's interests.

Figure 28: After being novated to the Contractor, were you able to effectively protect the original Principal's interests? (n=410)

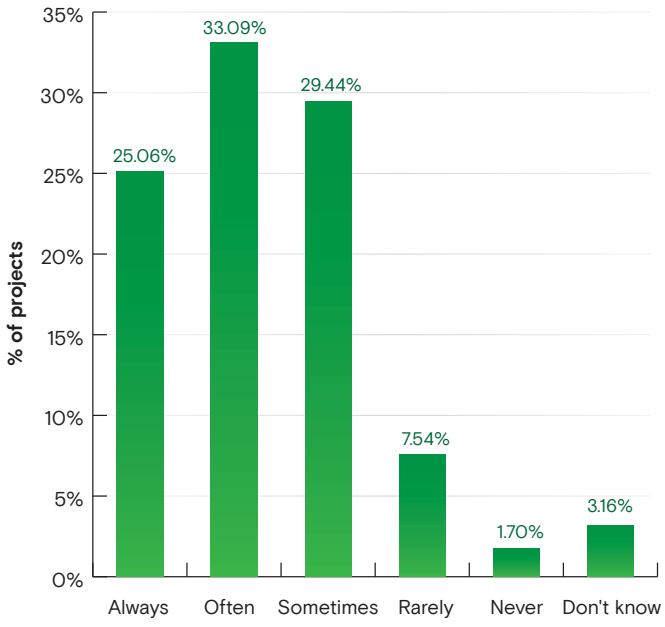



Walsh Bay Arts Precinct | Tonkin Zulaikha Greer Architects | Photographer: Brett Broadman

4.23 TIMELY AVAILABILITY OF APPROPRIATE CONSULTANTS AND SUB-CONTRACTORS FOR CONSTRUCTION DOCUMENTATION

Timely availability of the appropriate consultants and sub-contractors, when needed for construction documentation, was only reported as having occurred 'always' for almost exactly one quarter (25.06%) and 'often' in almost exactly one third (33.09%) of projects, while only sometimes for a little less than one-third (29.445) of projects. Lack of timely availability of appropriate consultants and sub-contractors for construction documentation was evident in the vicinity of 1 in 10 projects (9.24%) where timely availability rarely (7.54%) or never occurred (1.7%). For 3.16% of projects, the timely availability was not known by practices.

Figure 29: Were the appropriate consultants and sub-contractors available at the time you needed them for construction documentation? (n=411)



4.24 COMMUNICATION OF MONTHLY REPORTS BY THE CONTRACTOR TO THE ORIGINAL CLIENT

In almost half (48.42%) of 411 projects reported in the survey, practices did not know whether monthly reports issued to the contractor during novation were passed on to the original client. In only more than one third of projects (36.01%), practices reported that the monthly report issued to the contractor had either always (27.25%) or often (8.76%) been passed on to the client. For 5.6% of projects, monthly reports simply had never been passed on.

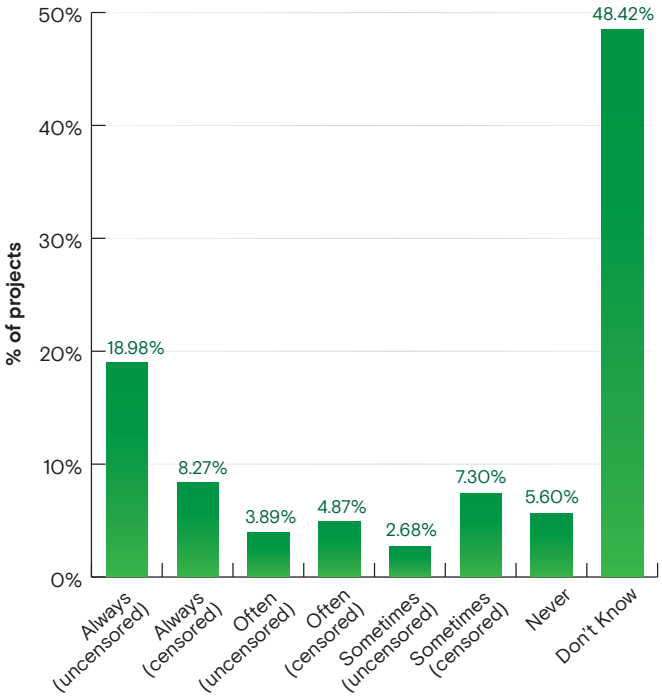
Across all projects where reports were always, often or sometimes passed on to the client, 44.44% of sent reports had been censored. Of note is that for the 27.25% of projects where reports were always passed on to the client, only 30.36% of projects reported report censorship. However, reports were censored at much higher rates of 55.56% of projects where reports were often passed on to the client and 73.17% of projects where reports were only sometimes passed on to the client.

The data for projects where reports are known to have been passed on is shown in Table 5 below and the difference in the rate of reported censorship is statistically significant[11].

Table 4: How often monthly reports were sent the client – uncensored vs censored

	Uncensored	Censored
Always	78	34
Often	16	20
Sometimes	11	30
Total	**105**	**84**

Figure 30: Were monthly reports issued to the Contractor during novation passed on to the original client? (n=411)



Murray Bridge High School Redevelopment | Cox Architecture | Photographer: Tom Roschi

11 X2 (df = 2, N = 189) = 24.504, p = <.01

4.25 SUFFICIENT TIME ALLOWED FOR RESEARCH, CO-ORDINATION AND ASSESSMENT

Practices were asked, for each of the projects, whether they had been allowed sufficient time for research, co-ordination and assessment in relation to several project processes. Across all processes, the most common response reported for projects was that there was only sometimes sufficient time for research, co- ordination and assessment of:

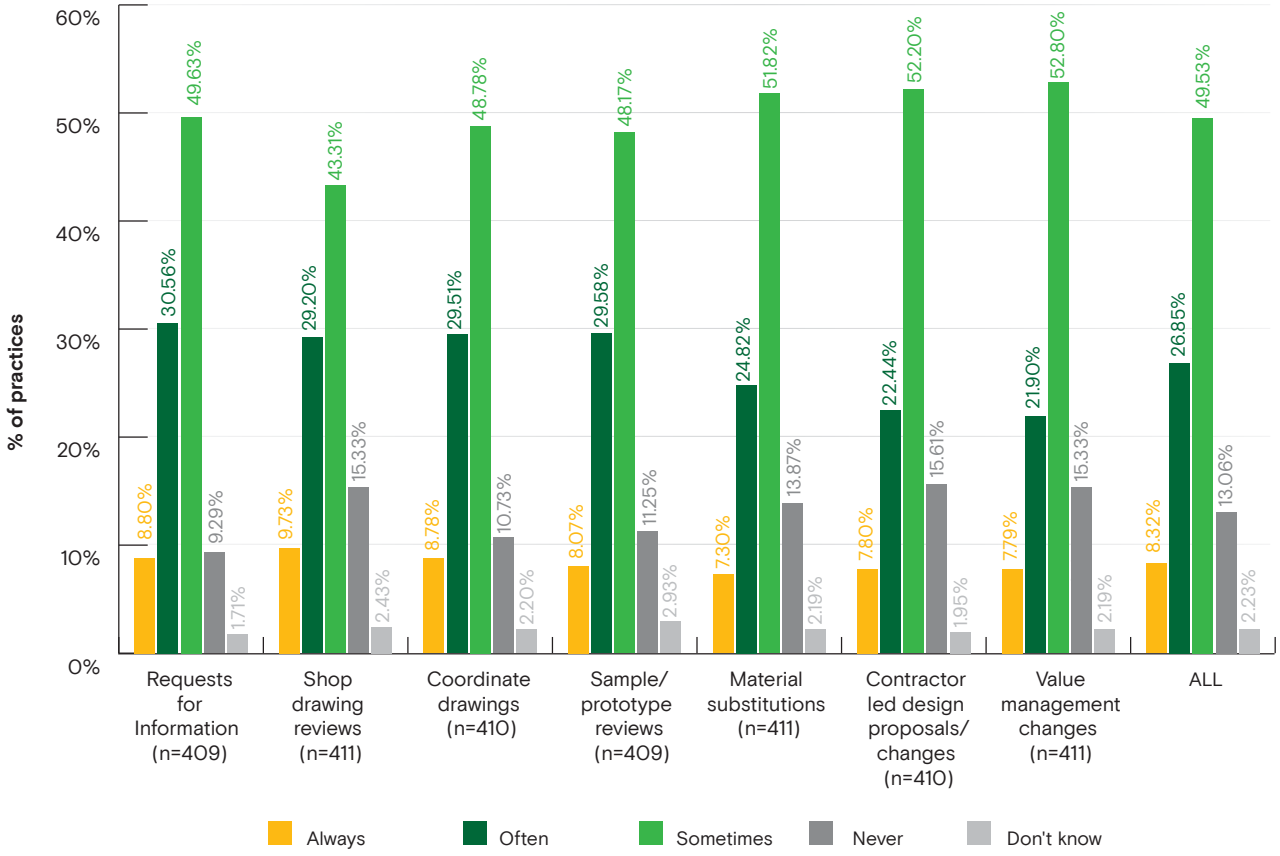
- requests for information,
- shop drawing reviews,
- to coordinate drawings,
- sample/ prototype reviews,
- material substitutions,
- contractor led design proposals/changes, and
- value management changes.

Overall, when these activities are aggregated, it appears that for only a little more than one-third (35.18%) of projects was sufficient time always allowed (8.32%) or often allowed (26.85%). The most common response for all processes combined, for almost one half (49.53%) of projects, was that sufficient time was only allowed sometimes.

More than one-third of projects were reported as being allowed sufficient time, 'always' or 'often', for Requests for Information (39.36%), Shop drawing reviews (38.93%) or to Coordinate drawings (38.29%).

On the other hand, fewer projects were reported as being allowed sufficient time 'always' or 'often' for Material substitutions (32.12%), Contractor led design proposals/ changes (30.24%) or Value management changes (29.68%). Notably, more than two-thirds of projects were reported as being allowed sufficient time only 'sometimes' or 'never' for Contractor led design proposals/changes (67.8%) or Value management changes (68.13%).

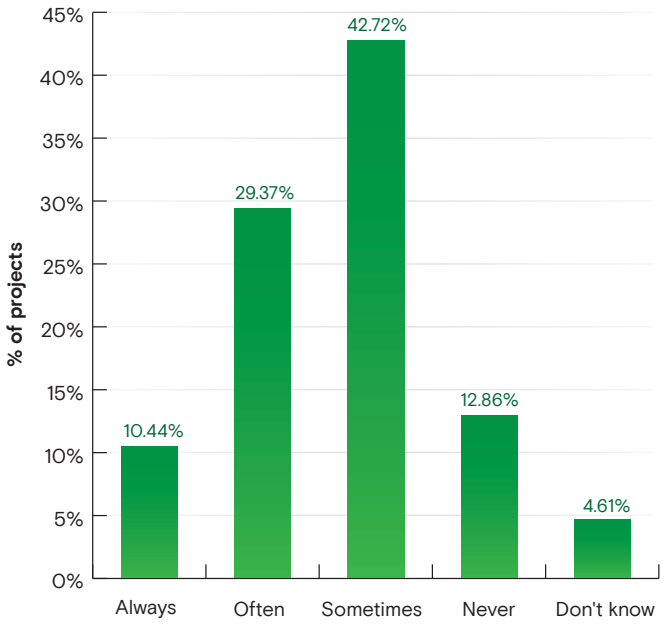
Figure 31: Were you allowed sufficient time for research, co-ordination and assessment of the following:



4.26 UNPAID VARIATIONS AND RE-WORK

Practices were asked to respond as to how often they had been asked to re-document or make significant changes to drawings that should have been a variation but were not granted by the Contractor. The responses indicate that this a common practice with it occurring in more than four out of five projects (82.52%) at least sometimes, if not often or always. In almost two-fifths (39.81%) of projects it is a frequent occurrence reported as occurring either often (29.37%) or always (10.44%)

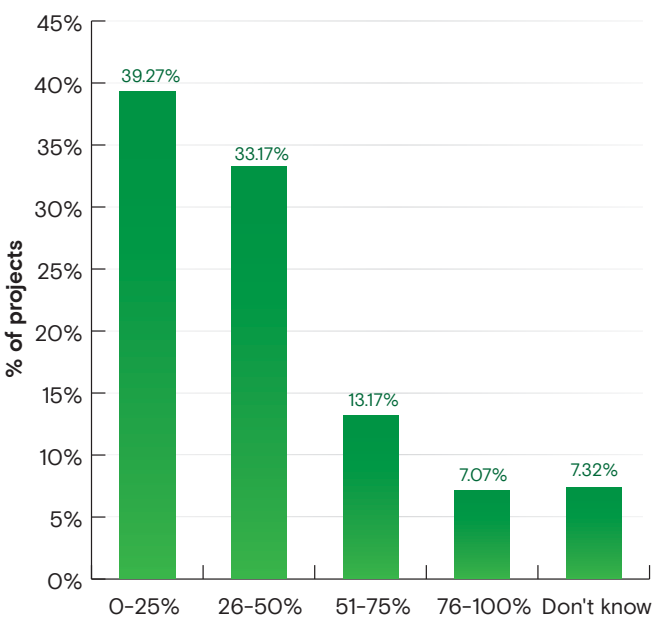
Figure 32: Were you asked to re-document or make significant changes to drawings that should have been a variation but were not granted by the Contractor? (n=412)



4.27 CHANGES OF FINISHES AND FIXTURES FROM ORIGINAL TENDER AFTER NOVATION

Practices were asked to indicate the percentage of finishes and fixtures that changed from the original tender after novation. Well more than half of projects (60.73%) saw anything from more than a quarter to all of finishes and fixtures changed from the original tender after novation. In just under one third (33.17%) of projects reported, more than one-quarter to a half of finishes and fixtures changed. In almost two fifths (39.27%) of projects, the changes were from zero up to 25%.

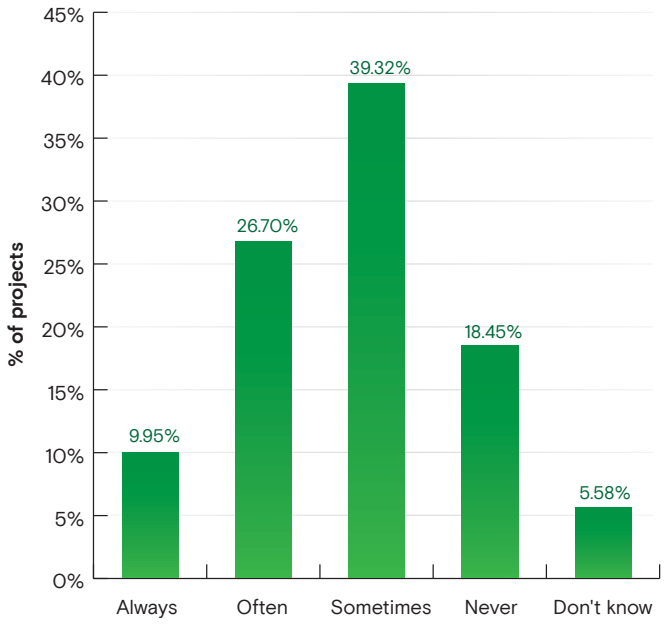
Figure 33: What percentage of finishes and fixtures changed from the original tender after novation? (n=410)



4.28 UNDUE CONTRACTOR PRESSURE

Practices were asked how often contractors had applied undue pressure for approval during sample reviews or substitutions. The responses indicate that this a common practice with it occurring in three-quarters (75.97%) of projects at least sometimes, if not often or always. In almost exactly two-thirds (66.02%) of projects it is a frequent occurrence reported as occurring either often (26.70%) or always (9.95%)

Figure 34: Did the Contractor apply undue pressure for approval during sample reviews/substitutions? (n=412)

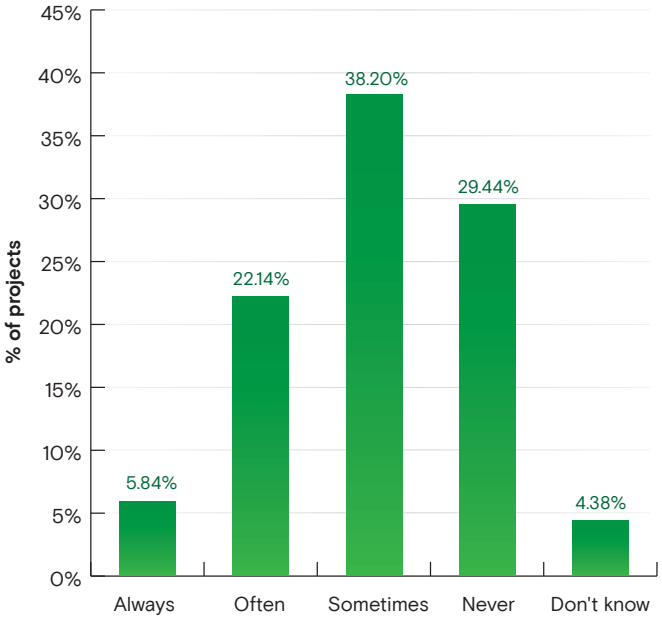


The Strand Hotel, Bistro | Public Design Studio | Photographer: Buffet Digital

4.29 ROBUST AND HIGH-QUALITY DESIGN MANAGEMENT BY CONTRACTOR

Practices were asked to respond how often contractors provided robust and high quality design management throughout novation of the reported projects. In almost exactly two-thirds (66.18%) of projects reported, robust and high-quality design management had been provided a least sometimes (38.2%), or often (22.14%) or always (5.84%). In more than one in twenty-five projects (4.38%) practices did not know. Of concern is that between a quarter and one-third of projects (29.44%) the contractor never provided robust and high-quality design management throughout novation.

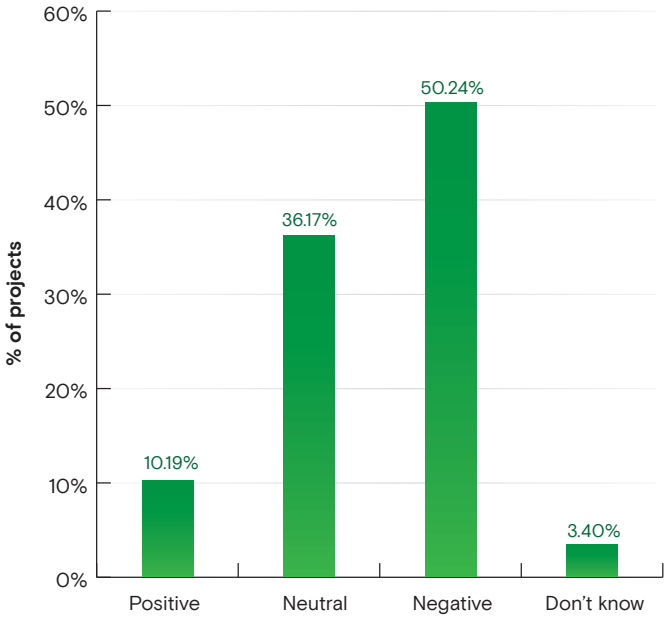
Figure 35: Did the Contractor provide robust and high quality design management throughout novation? (n=411)



4.30 EFFECT OF THE CONTRACTOR'S DESIGN MANAGEMENT ON THE PROJECT END USER

Practices were asked what effect they thought the contractor's design management had on the quality of the project for the end user? Disconcertingly, in almost precisely half (50.24%) of projects practices responded that the contractor's design management had a negative effect on the quality of the project for the end user. In only one in ten projects (10.19%) was the effect rated positive.

Figure 36: What effect did the Contractor's design management have on the quality of the project for the end user? (n=412)



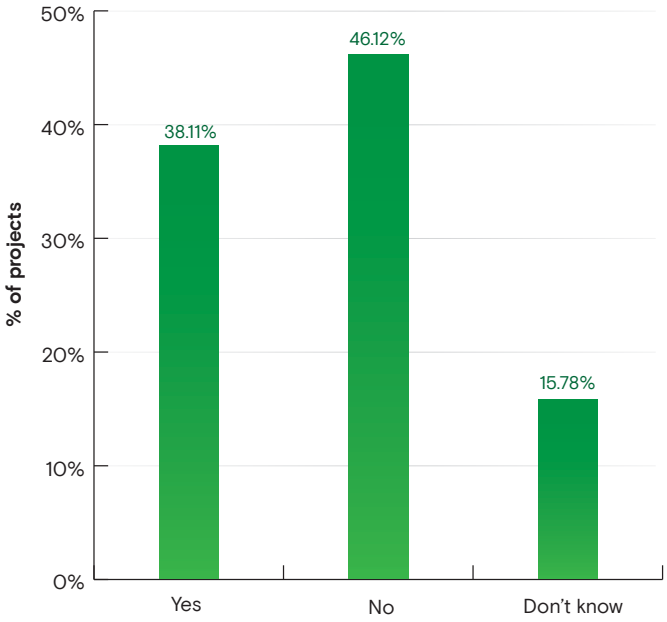

Penny Place | Woods Bagot | Photographer: Trevor Mein

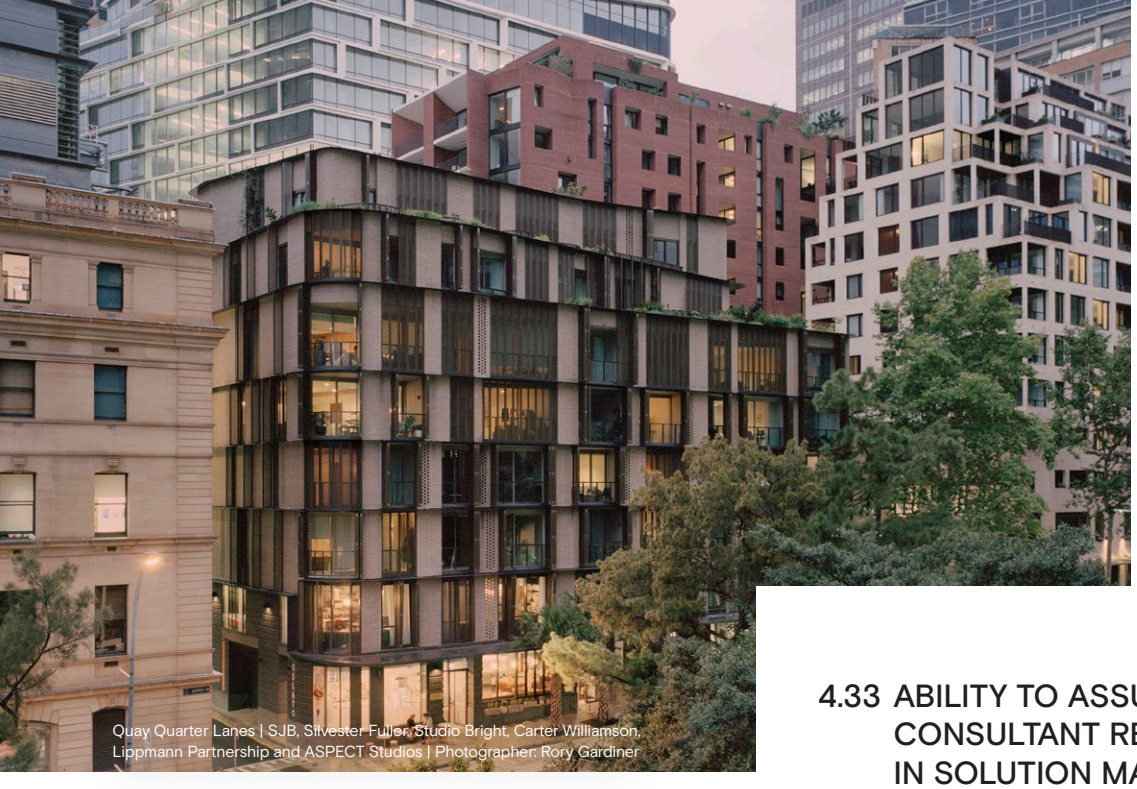
4.31 DOES NOVATION ALLOW FOR IMPROVEMENT OF CONSTRUCTION METHODOLOGY

Practices were asked if in general, novation allowed for improved construction methodology for each of the projects.

For almost one in six (15.78%) projects practices did not know. For close to one half (46.12%) of projects practices indicated that novation had not allowed for improved construction methodology. For substantially more than one-third (38.11%) of projects practices indicated that novation had allowed for improved construction methodology. When the undecided component is removed then the percentage of projects where novation did improve construction methodology increases to 45.24% and where it did not improve construction methodology also increases, but to 54.76%.

Figure 37: In general, did Novation allow for improved construction methodology for the project? (n=412)



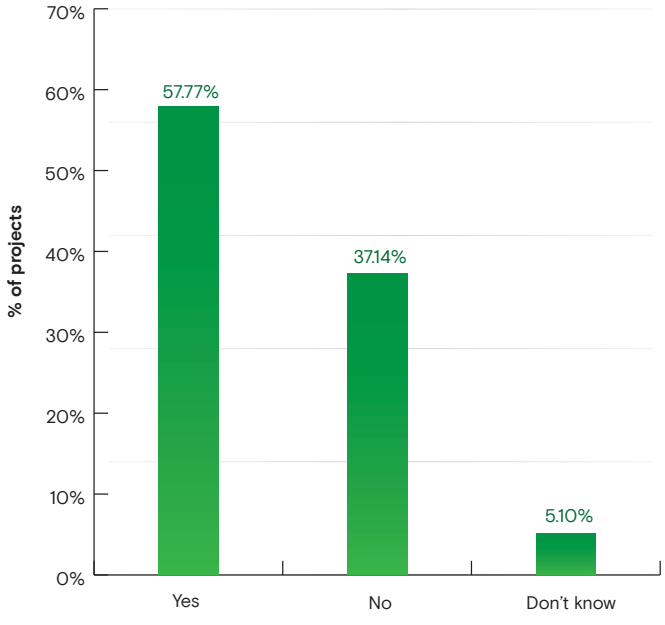


Quay Quarter Lanes | SJB, Silvester Fuller, Studio Bright, Carter Williamson, Lippmann Partnership and ASPECT Studios | Photographer: Rory Gardiner

4.32 NOVATION AND ARCHTECTURAL DETAILING OR QUALITY

Practices were asked if, in general, novation reduced the level of architectural detailing (i.e. quality). For well more than half (57.77%) of 412 projects in the sample, practices were of the opinion that novation had reduced the level of architectural detailing as synonymous with quality, while for one in twenty projects (5.1%) practices did not know. In more than one third (37.14%) of project examples, practices indicated that novation had not reduced the level of architectural detailing or quality.

Figure 38: In general, did Novation reduce the level of architectural detailing (i.e. quality) in the project (n=412)

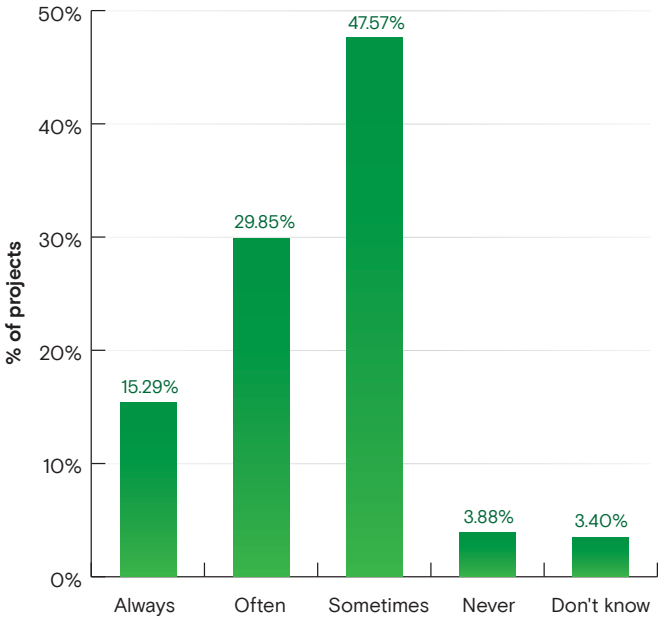


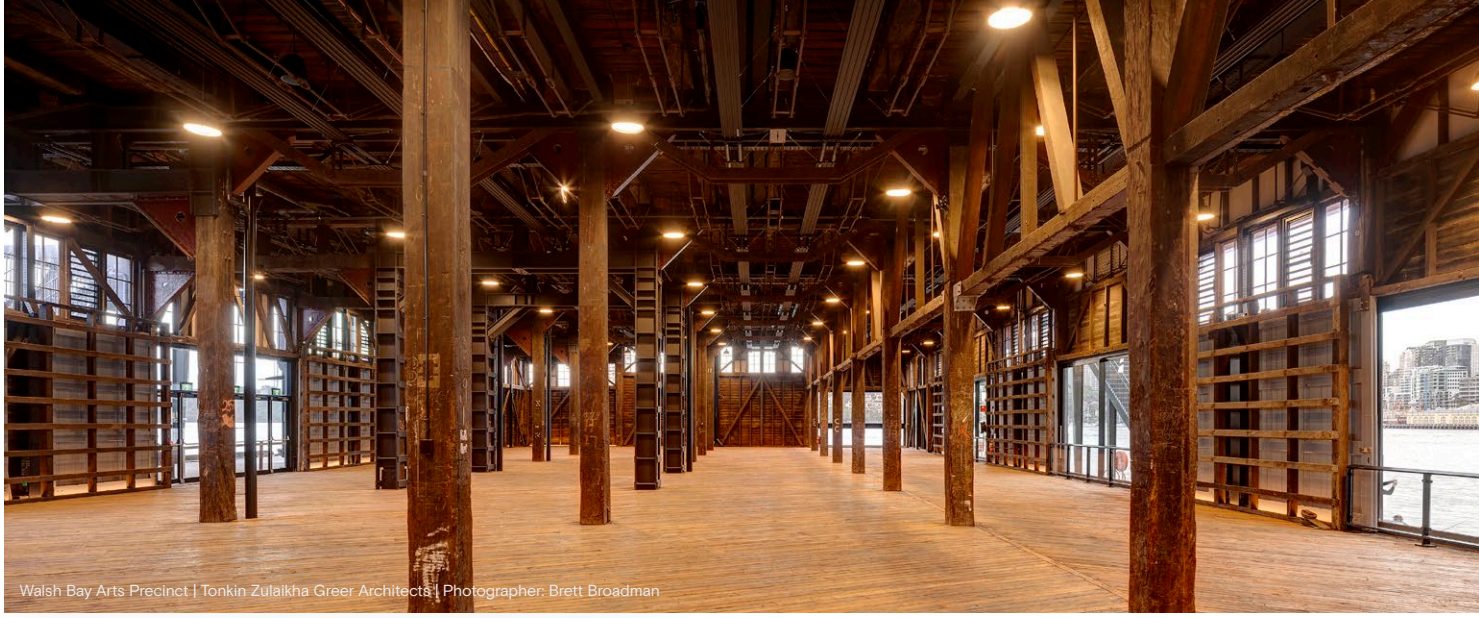
4.33 ABILITY TO ASSUME LEAD CONSULTANT RESPONSIBILITIES IN SOLUTION MANAGEMENT

Practices were asked to indicate how often, when unforeseen co-ordination issues occurred on site that required architectural input with the project, they were given the opportunity as Architects to document and co-ordinate the solution with other consultants.

In almost half (47.57%) of projects this occurred quite frequently, either always (15.29%) or often (29.85%). However for an equal proportion of projects, this occurred only sometimes (47.57%), and for approximately 1 in 25 projects (3.88%) the opportunity to document and coordinate solutions was never provided.

Figure 39: When unforeseen co-ordination issues occurred on site that required architectural input, were you given the opportunity to document and co-ordinate the solution with other consultants (n=412)





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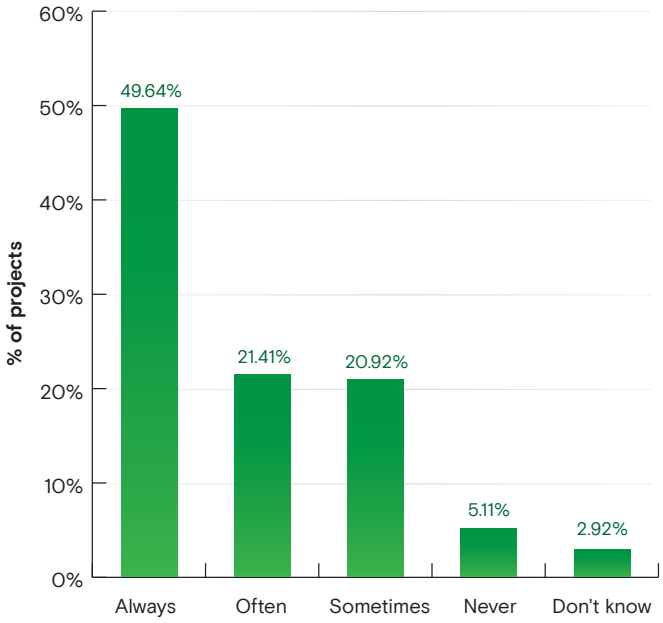
4.34 FREE SITE ACCESS TO CARRY OUT DUTIES

Practices were asked to indicate how often they were provided with free access to all relevant parts of the site to carry out their duties. For almost exactly on half of projects (49.64%), free access was provided, and for a further one in five (21.41%) projects free access was often allowed. However for more than a quarter of projects (26.03%) access was compromised with free access being allowed only sometimes for more than one in five projects (20.92%) or 'never' in the case of one in twenty (5.11%) of projects.

Figure 40: Were you allowed free access to all relevant parts of the site to carry out your duties? (n=411)



4.35 ACCURATE AND UNIMPEDED REPORTING

Practices were asked how often they were able to report on what was occurring during construction, without undue pressure or influence by the contractor in preparing and issuing monthly reports and monthly compliance certificates.

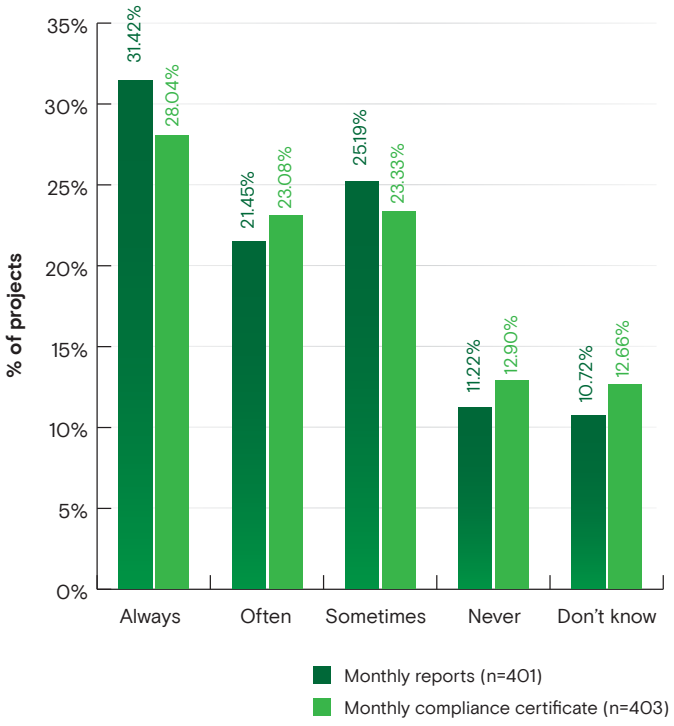
The data indicates that for slightly more than half of projects (52.87%) monthly reports were able to be prepared reasonable frequently without undue pressure or influence either always (31.42%) or often (21.45%). Similarly, in relation to monthly certificates, slightly more than half of projects (51.12%) were able to be prepared reasonable frequently without undue pressure or influence either always (28.04%) or often (23.08%).

In more than one in ten projects (10.72%) practices did not know whether the preparation of monthly reports was able to occur without undue pressure or influence by the Contractor. In relation to monthly certificates, in more than one in eight projects (12.66%), it was not known if the issuing was able to occur without undue pressure or influence by the Contractor.

In more than one third (36.41%) of projects, the preparation of monthly reports was able to occur without undue pressure or influence by the Contractor only 'sometimes' for one quarter (25.19%) of projects or 'never' for more than one in nine (11.22%) projects.

In a similar vein, in more than one third (36.23%) of projects the preparation of monthly compliance certificates was able to occur without undue pressure or influence by the Contractor only 'sometimes' for slightly less than one quarter (23.33%) of projects or 'never' for more than one in eight (12.90%) projects.

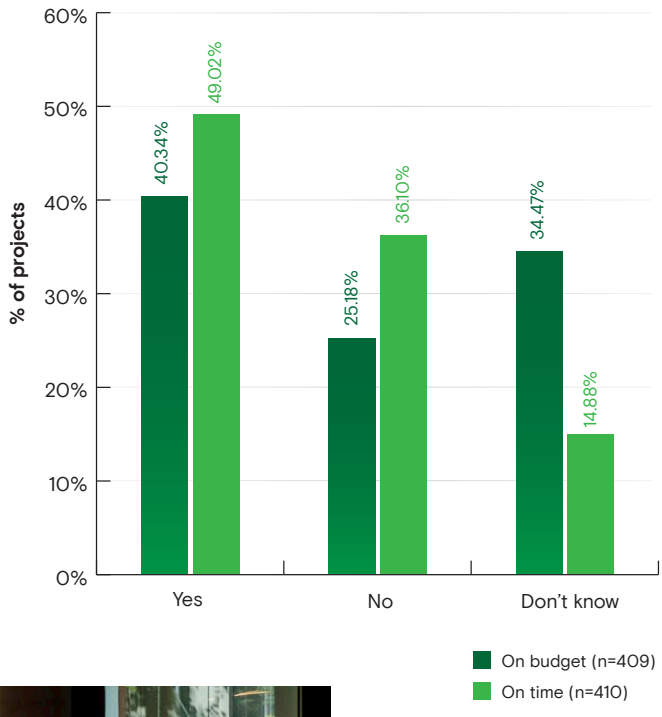
Figure 41: Were you able to accurately report on what was occurring during construction without undue pressure or influence by the Contractor in preparing and issuing the following:

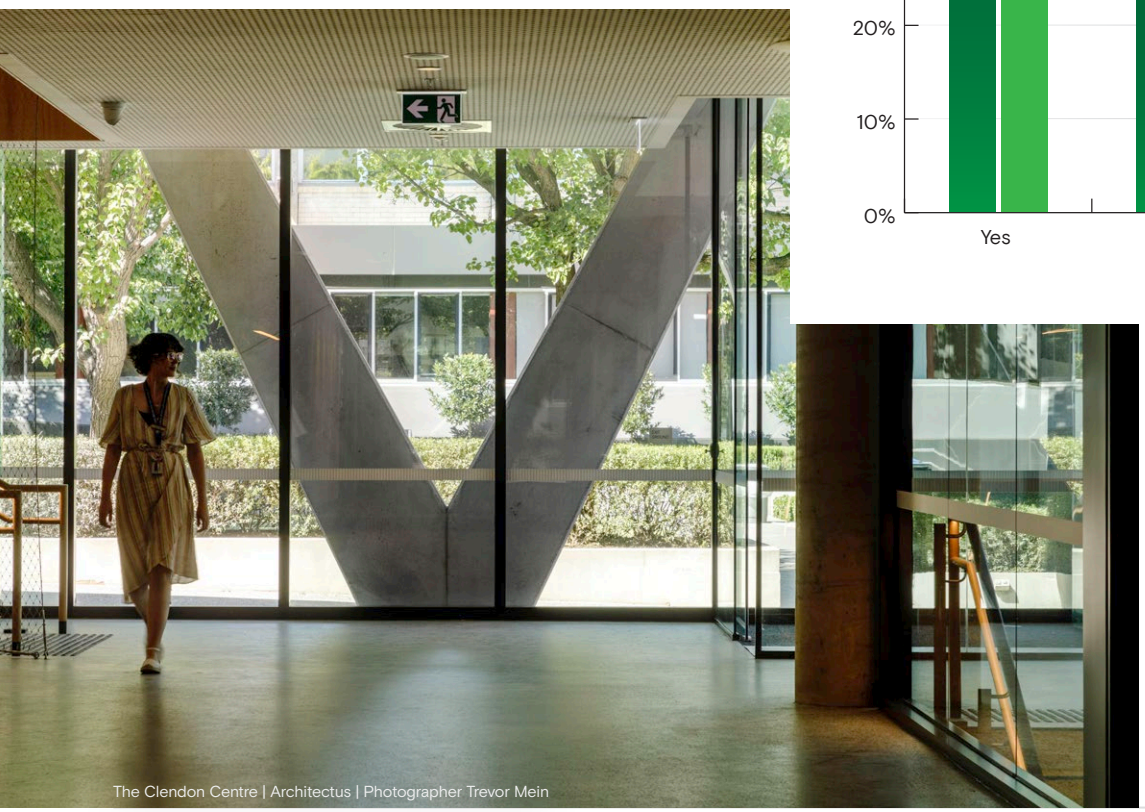


4.36 HOW PROJECTS MET TIMELINES AND BUDGETS

Practices were asked whether or not each project finished on budget or on time. Only slightly more than two-fifths (40.34%) of projects were reported as finishing on budget and slightly less than half (49.02%) as finishing on time. However there was also a large unknown component for more than one third (34.47%) of projects in relation to finishing on budget and for slightly more than one in seven of projects (14.88%) in relation to finishing on time. When the known outcomes ('Yes' vs 'No') are compared 61.57% of projects finished on budget and 57.59% finished on time.

Figure 42: Did the project finish





The Clendon Centre | Architectus | Photographer Trevor Mein

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NATIONAL NOVATION SURVEY FULL REPORT

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