Guidance on Professional Engineering Work

1. Glossary of terms

Words and expressions used in this document have the same meaning as they have in the *Design and Building Practitioners Act 2020* (**Act**) and the Design and Building Practitioners Regulation 2021 (**Regulation**) unless otherwise specified.

Certifier	A registered Certifier has an important public function which can involve assessing and determining applications for certificates for building and subdivision work, issuing compliance certificates for the design and construction of building work or performance solutions relating to fire safety. Certifiers are registered under the *Building and Development Certifiers Act 2018.*
Class 2 building	Class 2 buildings are apartment buildings. They are typically multi-unit residential buildings where people live above and below each other. Class 2 buildings may also be single storey attached dwellings where there is a common space below. For example, two dwellings above a common basement or carpark. A building, with a class 2 part, is a building of multiple classifications that has a class 2 component as well as components from another class/es, making it a “mixed-use building” (for example, a class 2 with a class 5, which are office buildings used for professional or commercial purposes, or a class 6, which are typically shops, restaurants and cafés).
Compliance Declaration Scheme	The registration of Design Practitioners, Principal Design Practitioners and Building Practitioners to provide compliance declarations.
DBP legislation	*Design and Building Practitioners Act 2020* and Design and Building Practitioners Regulation 2021.
Design Practitioner	A registered Design Practitioner is responsible for making design compliance declarations – they declare that regulated designs comply with the Building Code of Australia and other relevant standards. It is important to recognise that the role of the Design Practitioner is not part of the certification process, but is to declare that the designs will meet the required standard.

Prescriptive standard	Means that the work is only provided in accordance with a document that states the procedure or criteria for carrying out the work and the work does not require the application of advanced scientifically based calculations (see section 31(2)(a) of the Act).
Professional Engineers' Scheme	The registration of Professional Engineers to carry out professional engineering work.
Professional engineering work	Means professional engineering work under the *Design and Building Practitioners Act 2020.*
Queensland legislation	*Professional Engineers Act 2002* and Professional Engineers Regulation 2003.
Registered Professional Engineer	Means a person who is registered or recognised under the *Design and Building Practitioners Act 2020* as a Professional Engineer and is responsible for carrying out professional engineering work.
Registration	Means registration granted under the *Design and Building Practitioners Act 2020* from 1 July 2021 for a period of 1, 3, or 5 years as specified in the notice of registration, unless cancelled.
Unregistered engineer	Means a person who is not registered under the *Design and Building Practitioners Act 2020.* An unregistered engineer may only carry out professional engineering work if under direct supervision.
Victorian legislation	*Professional Engineers Registration Act 2019* and Professional Engineers Registration (General, Exemption and Assessment Scheme Fees) Regulations 2021.

2. Introduction

The *Design and Building Practitioners Act 2020* and Design and Building Practitioners Regulation 2021 (the **DBP legislation**) were established to raise the standards of building design and building work. The DBP legislation establishes a registration scheme for Professional Engineers carrying out professional engineering work in NSW.

This document will assist engineers in identifying whether they need to be registered for the work that they do by providing information on:

- who needs to be registered (see section 3 of this document),
- the meaning of *professional engineering work* (see section 4 of this document),
- what are the areas of engineering (see section 5 of this document),
- the meaning of *direct supervision* (see section 6 of this document), and
- what is authorised by the Regulation (see section 7 of this document).

This document does not provide information on how to be registered as a Professional Engineer under the registration scheme. Detailed information on the eligibility requirements and process for registration can be found on the NSW Fair Trading website.

This document also do not provide information on the ongoing requirements that registered Professional Engineers need to meet to maintain their registration. Please refer to the Fair Trading website for more information.

While this document has been developed to provide general information to engineers about the requirement for registration, individuals are ultimately responsible for assessing whether they need to be registered based on their own circumstances.

3. Who needs to be registered?

3.1 What the DBP legislation requires

Not all engineers working in NSW need to be registered to keep working from 1 July 2021. The Professional Engineers scheme only requires engineers who meet the criteria listed below to register:

1. You are doing engineering work which is ***professional engineering work***,
2. The professional engineering work you are doing is in any of the following ***areas of engineering***:
    a. Civil engineering
    b. Electrical engineering
    c. Fire safety engineering
    d. Geotechnical engineering
    e. Mechanical engineering
    f. Structural engineering,
3. You are not carrying out professional engineering work under the direct supervision of a registered Professional Engineer authorised to do the work,
4. You are not authorised by the regulations to do the professional engineering work without registration.

It is an offence, under section 32(1) of the Act, if an engineer's work meets the above criteria and they are not registered as a Professional Engineer in the appropriate class of registration for that work, unless:

1. they are doing the work under the direct supervision of a registered Professional Engineer in the appropriate class of registration for that work, or
2. they are expressly authorised under the DBP Regulation to do the work without registration.

If you are prosecuted for this offence, you could face a maximum penalty of $55,000 or an on-the-spot fine of $5,500.

In addition, under section 32(2) of the Act, you are not entitled to be paid for doing the work if you are not appropriately registered, supervised or authorised. Any amount paid for doing the work would also be recoverable as a debt.

3.2 Relationship to other registration schemes?

In addition to registering as a Professional Engineer, an engineer's work may also require them to be registered under other registration schemes operated by NSW Fair Trading. In addition to establishing a

registration scheme for Professional Engineers carrying out professional engineering work, the DBP Act establishes a registration scheme for designers and builders to declare their work complies with the Building Code of Australia. Engineers may currently be registered under the *Building and Development Certifiers Act 2018*.

The roles:

- A registered **Professional Engineer** is responsible for carrying out professional engineering work.
- A registered **Design Practitioner** is responsible for making design compliance declarations – they declare that regulated designs comply with the Building Code of Australia and other relevant standards. It is important to recognise that the role of the Design Practitioner is not part of the certification process, but is to declare that the designs will meet the required standard. Not all engineers will need to be registered to be a Design Practitioner under this scheme, only the person who will be declaring or lodging designs and declarations. More information about this scheme and how to register is available on the NSW Fair Trading website.
- A registered **Certifier** has an important public function which can involve assessing and determining applications for certificates for building and subdivision work, issuing compliance certificates for the design and construction of building work or performance solutions relating to fire safety. Certifiers are registered under the *Building and Development Certifiers Act 2018.* More information about this scheme and how to register is available on the NSW Fair Trading website. If you have any questions about certifier registration then please inquire using this email: certifierregistration@customerservice.nsw.gov.au.

If you are registered as a Certifier, you will not automatically satisfy the qualification requirements for registration as a Professional Engineer, despite your engineering qualifications being previously considered by NSW Fair Trading. This is because the scope of work that is being authorised under the two schemes is different, and therefore your qualifications will need to assessed again to ensure that they meet the standard required for registration as a Professional Engineer.

If you are not eligible to be registered as a Professional Engineer, this does not affect your registration as a Certifier.

To determine which type of registration is most appropriate, please consider the role that you are intending to perform against the definition and components of professional engineering work as explained further in section 5 of this document.

For example:

A fire safety engineer who is already registered as a Certifier (Certifier - Fire Safety, previously a C10) and wants to do work on a class 2 building may now need to be registered as a Professional Engineer and likely a Design Practitioner. This is because preparing a performance solution report under the requirements of the Environmental Planning & Assessment Act 1979 could also be professional engineering work under the DBP legislation.

For example:

A registered Professional Engineer may work on designs on a class 2 building project without being a registered Design Practitioner. Only the person who will declare or lodge the documents is required to be registered as a Design Practitioner. Where an engineer works for a firm, and the firm makes a compliance declaration on behalf of all engineers doing the work, the registered Professional Engineer doesn't need to be registered as a Design Practitioner.

4. What is Professional Engineering Work?

As noted earlier, not all engineers working in NSW need to be registered to keep working from 1 July 2021. This is because not all engineering work will meet the threshold of being professional engineering work. Only professional engineering work requires registration, due to the specialised nature of the work.

Professional engineering work is defined in the DBP legislation (section 31 of the Act and clause 14 of the Regulation), and consists of the following five elements:

1. engineering work,
2. requiring or based on the application of engineering principles and data,
3. applying these principles and/or data to an engineering related design or construction, production, operation or maintenance activity,
4. carried out directly in relation to the design or construction of a class 2 building, or mixed-use class 2 building, and
5. not provided in accordance with a prescriptive standard.

The definition of professional engineering work has been designed to be consistent with the definition of 'professional engineering service' used in Queensland and Victoria legislation governing the registration of Professional Engineers in those jurisdictions. Specifically, section 31(3) clarifies that engineering work includes engineering services provided by a person.

Each of five elements must be met for engineering work to be professional engineering work for the purposes of the DBP legislation. These elements of professional engineering work are explained in detail below.

Engineering Work

The DBP legislation does not define *engineering work*. It merely clarifies that engineering work includes engineering services provided by a person (section 31(3)). Accordingly, it must be interpreted according to the ordinary meaning of the language, including the terms *engineering, engineer, work* and *service*.

Requiring, or based on, applying engineering principles and data

Professional engineering work, under the Act, is work that either:

- "**requires…** the application of engineering principles and data" – this means that the description of the work must involve the application, or use, of engineering principles and data to meet that description, or

- "**is based on…** the application of engineering principles and data" – this means that the application, or use, of engineering principles and data are the basis on which the work is carried out.

Engineering principles are the ideas, judgements, rules, or concepts used to solve an engineering problem and that are required to design, develop and analyse systems, applications and equipment. As engineering is concerned with design, construction, production, operation and maintenance, the principles are based on applied science, such as physics and chemistry, and mathematics.

Engineering data is the data used in the application of engineering principles and includes, design drawings, manufacturer's specifications, standards, application of standards and codes and other information used to design and build end-products. The use of engineering data may require calculations to be made, and where this is the case, the outcomes of those calculations should be interpreted in the context of the particular system, application, or equipment concerned.

Therefore, to be professional engineering work, the engineering work must require or be based on the application of specialist knowledge of applied science and mathematical principles and the interpretation of engineering data. The purpose is to facilitate the design, construction, production, operation or maintenance activity relating to engineering in one of the areas of engineering listed in the DBP legislation.

Applying these principles and/or data to an engineering related design or construction, production, operation or maintenance activity

The engineering activities captured under the DBP legislation are limited to an engineering related design, or construction, production, operation or maintenance activity.

Engineering design is an iterative process informed by the application of engineering principles and data in order to devise a component, process or system to meet desired needs or a stated objective.

Engineering construction and production are the respective processes of designing structures or components, reviewing designs and co-ordinating construction (including testing and commissioning where applicable) and production consistent with the agreed design/s.

Engineering operation and maintenance involves designing or modifying systems and developing advice to ensure the ongoing operation and standard of performance of devices, equipment, machinery, structures and infrastructure, and decommissioning.

If any one of these activities is present, the work is professional engineering work for the purposes of the DBP legislation.

Carried out directly in relation to the design or construction of a class 2 building, or mixed-use class 2 building

The Regulation limits 'professional engineering work' to only engineering work that is carried out *directly* in relation to the design or construction of a building if the building, or part of the building, is a class 2 building. This means that the requirements apply to work on all parts of the mixed-use building, not just the class 2 part. For example, a mixed-use building may be a building that contains retail shops or restaurants on the ground floor, with office accommodation and residential apartments on the upper floors.

The NSW Government is limiting the application of the Professional Engineers scheme to class 2 and related mixed use buildings to complement the new Compliance Declaration scheme while these new requirements on design and building practitioners are initially established. This is consistent with the NSW Government's response to the *Building Confidence Report*, which identified class 2 and related mixed use buildings as the greatest risk for building quality, competencies of practitioners and impacts on end consumers. These risks have been highlighted by significant failures in building standards in this class in recent years.

It is only intended to capture professional engineering work in the relevant areas of engineering where the work itself is *directly* involved in designing and constructing the class 2 building. This means that the engineering work must be more than ancillary to the building design or construction to be captured. It is acknowledged that there is engineering work that is conducted to support the construction of a class 2 building, such as the supporting and surrounding civil infrastructure. However, this engineering work is not captured by the scheme.

For example:

The work of a civil engineer associated with the civil infrastructure outside of a class 2 building development, such as the public water supply schemes or roads are not directly relevant to the design and construction of a class 2 building. Accordingly, this work is not intended to be captured.

For example:

The substantive work of geologists is not 'professional engineering work' as it is understood that the work of geology and earth science is more indirectly involved in the understanding, behaviour and performance of rock and soil under changes and stress. In addition, the work of certain scientists or mathematicians may

inadvertently fall within the definition of professional engineering work. This work is not intended to be captured as it is not directly related to a class 2 building or a class 2 part.

Not provided in accordance with a prescriptive standard

The Act expressly provides that engineering work:

a. that is only provided in accordance with a document that states the procedure or criteria for carrying out the work, and
b. does not require the application of advanced scientifically based calculations

is not professional engineering work.

Accordingly, an engineer does not need to be registered under the DBP legislation to do this work. This limitation operates similar to the Queensland and Victorian legislation, i.e. an engineering service that is provided only in accordance with a prescriptive standard is not a professional engineering service, with prescriptive standard defined similarly to the key elements above.

For engineering work to satisfy this test it must meet the following criteria:

1) only provided in accordance with a **document**,
2) the document states **procedures or criteria** for carrying out the work, and
3) these procedures or criteria **do not require the application of scientifically based calculations**.

These criteria are described in detail below.

Only provided in accordance with a document

To satisfy the exemption, the engineering work must be carried out ***in*** accordance with, and ***only*** in accordance with a document. This means that all of the engineering work must be provided in accordance with this document. If some of the work is not in accordance with the document, such as the document informs the way a solution is constructed but is not solely in accordance with the document, the exemption doesn't apply. Further, if the engineering work changes even slightly from the procedures or criteria detailed in the document, the exemption doesn't apply.

To meet the requirements, the document must be a physical record of the procedures and criteria for carrying out the work to which it relates. Verbal instructions and procedures or criteria carried out from memory, without being physically documented in any way, are not sufficient.

According to the NSW *Interpretation Act 1987,* a "*document means any record of information, and includes—*

(a) anything on which there is writing, or

(b) anything on which there are marks, figures, symbols or perforations having a meaning for persons qualified to interpret them, or

(c) anything from which sounds, images or writings can be reproduced with or without the aid of anything else, or

(d) a map, plan, drawing or photograph."

The document states procedures or criteria for carrying out the work

To satisfy the exemption, the document must state procedures or criteria for carrying out the work to which it relates.

Procedures are the set of actions conducted in a certain order or manner to complete an activity. The criteria refer to the principles, rules and standards that the activity must comply with and will be tested against. If a document does not state one or more ways of performing or conducting the activity it covers, or one or more principles, rules or standards by which the activity will be tested, then it does not meet the criteria of the exemption, i.e. it is not a prescriptive standard.

For a document to satisfy the exemption, it should result in an engineer exercising little or no choice or judgement to apply the procedures or criteria stated in it to carry out the work. The specific actions and measurements represented in the document must comprise the sole means of being able to comply. If an engineer is required to exercise more than little or no choice or judgement to apply engineering principles and/or interpret engineering calculations or data, to carry out the work, the document does not satisfy the exemption, i.e. it is not a prescriptive standard and you must be registered or supervised by a registered person to do the work.

The procedures or criteria do not require the application of scientifically based calculations

To satisfy the exemption, the document must not require advanced scientifically based calculations to carry out the activity it covers.

Advanced scientifically based calculations include the science, physics and mathematics calculations that are required to model real world engineering applications and that combine mathematical theory and practical engineering.

Advanced scientifically based calculations are distinguished from other engineering calculations by the level of engineering and mathematical knowledge required to calculate and interpret the output.

Advanced scientifically based calculations, which usually require the application of complex engineering principles and data, can only be made by a person with the level of knowledge and experience required of a registered Professional Engineer. Calculations required by a prescriptive standard must be able to be performed by a non-professional engineer who may have been trained in the use of such calculations.

If calculations in a document can only be made by a person with the level of knowledge and experience of a registered Professional Engineer, the document does not meet the criteria of the exemption, i.e. it is not a prescriptive standard.

For example:

A document that states the procedure or criteria for carrying out the work, and does not require the application of advanced scientifically based calculations may be a document that is:

- *published by a body such as Standards Australia (published document), or*
- *endorsed by a registered Professional Engineer (internal document).*

However, both published and internal documents must still satisfy the criteria outlined above for the exemption to apply. For example, not all documents published by Standards Australia will satisfy the requirements as they may require more than little or no judgement and/or the use of scientifically based calculations to follow the stated procedures or criteria.

5. What are the areas of engineering?

The six areas of engineering for registration are:

- civil engineering
- electrical engineering
- fire safety engineering
- geotechnical engineering
- mechanical engineering, and
- structural engineering.

This means that a person is only required to be registered to carry out professional engineering work if that work is in any of the above areas of engineering and it is carried out directly in relation to the design or construction of a class 2 building (including mixed-use class 2 buildings).

If a person carries out professional engineering work in an area of engineering not included above, for example, mining, chemical, environmental and information, technology and telecommunications, then they are not currently required to be registered in New South Wales under the DBP legislation.

The areas of engineering are defined in Schedule 1 of the Design and Building Practitioners Regulation 2021. These definitions have been included below. While the areas of engineering have broad meanings, registration is required only where a person is carrying out professional engineering work in these areas, and that work is carried out directly in relation to the design or construction of a class 2 building (including mixed-use class 2 buildings). For example, while the building of roads, railways and bridges falls within the scope of civil engineering, a person doing that professional engineering work is not required to be registered as that work is not carried out directly in relation to the design or construction of a class 2 building (including mixed-use class 2 buildings).

Area of civil engineering means an area of engineering that involves the research, design, construction and maintenance of the built environment.

Area of electrical engineering means an area of engineering that involves equipment, devices, plant and systems that use electricity, electronics and electromagnetism.

Area of fire safety engineering means an area of engineering that involves the application of engineering principles and rules to the following—

(a) the fire performance of a material, structure or building,

(b) the selection of a fire system suitable for a particular building, including components of the systems,

(c) the safety and behaviour of a person in the event of a fire,

(d) the prevention, detection and suppression of fire.

Area of geotechnical engineering means an area of engineering that involves the mechanics of soil and rock and the application of the mechanics to the design and construction of foundations, retaining structures, shoring excavations and ground bearing structures for buildings and other systems constructed of, or supported by, soil or rock, but does not include activities involving only geology or earth science.

Area of mechanical engineering means an area of engineering that involves work carried out in relation to devices, machines, structures, processes and systems involving mechanical elements.

Area of structural engineering means an area of engineering that involves the understanding, prediction and calculation of:

(a) the stability, strength and rigidity of built structures, and

(b) how structures and buildings resist and transfer natural and other forces.

6. What is direct supervision?

If an engineer satisfies the first two criteria, i.e. they are doing professional engineering work on a class 2 building in one of the areas of engineering, they must be registered unless they are doing the work under the direct supervision of a registered Professional Engineer authorised to do the work.

Accordingly, from 1 July 2021, engineers who choose not to register or are ineligible to register, can continue to do professional engineering work on class 2 and related mixed-use buildings, only if they are being supervised in accordance with the DBP legislation.

NSW Fair Trading considers that each of the following four elements must be met to satisfy the direct supervision requirement of the DBP legislation.

1. The supervision must be direct.
2. The supervising engineer must be a registered Professional Engineer whose registration authorises them to carry out the professional engineering work and the work must be within their area of competence and experience.
3. The supervising Professional Engineer must instruct, oversee and evaluate the supervised engineer in the carrying out of the work.

The obligation to satisfy these elements rests with both the unregistered engineer who is being supervised, as well as the registered engineer who is supervising. Failure to satisfy these elements will result in significant consequences for both parties. The unregistered engineer could face a maximum penalty of $55,000 or an on-the-spot fine of $5,500, and the supervising Professional Engineer risks disciplinary action, including possible cancellation of their registration.

These elements are described in detail below.

The supervision must be direct

For an engineer to be able to do professional engineering work without being registered, the supervision they receive from a registered Professional Engineer must be direct, i.e. it cannot be through a third person. This means that the unregistered engineer and the registered Professional Engineer must have direct contact with each other.

Direct contact includes in person interactions as well as remote instructions if one or both work from different offices or at home. Examples of direct supervision may include face to face meetings, video conferencing, email and telephone calls and direct supervision and approval of draft designs. Where engineering decisions are required, contact must first be made with the supervising registered Professional Engineer so that they make the engineering decisions and provide any further instructions

or directions to the unregistered engineer that may be required. Both parties have a responsibility to ensure the supervision given and received is direct.

> ***For example:***
>
> *Rashini is a registered Professional Engineer and is providing direct supervision to Ahmad. Rashini must directly communicate with Ahmad and cannot provide instruction, review or comment through a colleague of Ahmad's.*

The supervising engineer must be registered and authorised/competent to carry out the work

For an engineer to be able to do professional engineering work without being registered, they must be supervised by a registered Professional Engineer who is authorised by their registration to do the work. For example, if an unregistered engineer was developing a performance solution for a fire safety system, they would need to be supervised by a registered Professional Engineer in the class of Fire Safety. The unregistered engineer could not be supervised by a registered Professional Engineer in any other class.

Before accepting to directly supervise an unregistered engineer, a registered Professional Engineer should ensure they fully understand the work required and make sure this falls within the scope of work authorised by their class of registration.

A registered Professional Engineer is required to comply with a Code of Practice that sets out required professional and ethical standards. The Code is in Schedule 4 of the DBP Regulation.

While a registered Professional Engineer is provided with a broad scope of authority to carry out professional engineering work according to their class of registration, they must not carry out professional engineering work that is beyond their competence or expertise.

The Code of Practice also specifically extends this duty in circumstances where the registered Professional Engineer is directly supervising a person who is not registered. In these circumstances, the registered Professional Engineer must not directly supervise an engineer if the work is not within the registered Professional Engineer's competence and experience.

Further, the registered Professional Engineer must ensure that the work is carried out competently, and also in accordance with relevant laws. This has the effect of ensuring that the Registered Professional Engineer is ultimately responsible for any work carried out by an engineer that they have directly supervised. Any resulting complaints, investigations or disciplinary action associated with the professional engineering work will be directed at the registered Professional Engineer.

For example – Code of Practice:

10 Duty to act within level of competence and expertise

(1) A registered professional engineer must not carry out professional engineering work that is not authorised by the professional engineer's registration or is beyond the professional engineer's competence or expertise.

(2) A registered professional engineer must inform a person for whom the engineer is carrying out, or is proposing to carry out, professional engineering work if the work is, or will be, beyond the professional engineer's competence or expertise.

(3) A registered professional engineer must seek and properly consider specialist advice if an aspect of professional engineering work is beyond the professional engineer's competence or expertise.

19 Duties regarding supervision of other persons

A registered professional engineer who directly supervises a person who is not registered as a professional engineer (an unregistered person) must ensure that the unregistered person does not carry out professional engineering work under the direct supervision of the registered professional engineer unless—

(a) the work is within the professional engineer's competence and expertise, and

(b) the work is carried out competently, and

(c) the work is carried out in accordance with the requirements prescribed by the Act and this Regulation, including this code of practice, or another Act or law.

The level of direct supervision required by a supervising registered Professional Engineer may vary depending on the context of the work and the expertise of the unregistered engineer. However, even if an unregistered engineer demonstrates high level expertise, direct supervision must be maintained at all times.

Failure to comply with these duties has serious consequences for a registered Professional Engineer. For instance, this may result in a fine, a condition, suspension, or cancellation of a registered Professional Engineer's registration. Accordingly, before accepting to directly supervise an engineer, a registered Professional Engineer should ensure they fully understand the work required and make sure this falls within their competence and expertise. The competency required of a supervising registered

Professional Engineer depends on the nature of the professional engineering work and the circumstances of each situation.

> ***For example:***
>
> *When providing direct supervision, a registered Professional Engineer must always act within their level of competence and expertise. If the professional engineering work is multi-disciplinary a Professional Engineer must be competent in all areas of engineering required for the work. For instance, a Professional Engineer may be registered in the classes of electrical engineering and mechanical engineering. In this case the registered Professional Engineer must be competent in both areas of engineering for the purposes of registration and supervision.*

The supervising Professional Engineer must instruct, oversee and evaluate the supervised engineer in doing the work

The supervising registered Professional Engineer must ultimately be in control of the professional engineering work to ensure that the work is of a standard expected of a competent registered Professional Engineer.

The supervising registered Professional Engineer must provide clear instructions or directions to the engineer when carrying out professional engineering work. This means that the engineer does not have full authority or flexibility in the scope of work carried out.

The supervising registered Professional Engineer must oversee all stages of the professional engineering work. This is a critical element and a registered Professional Engineer cannot sign off on the end product without having directly participated in the work being undertaken.

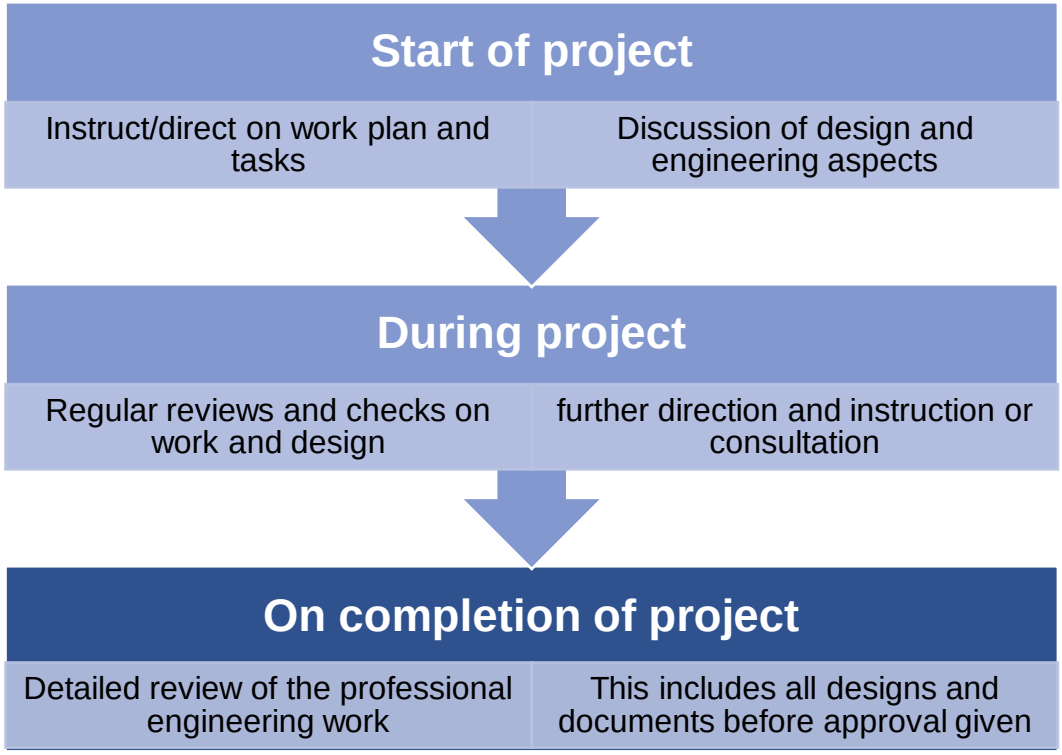
The supervising registered Professional Engineer must also evaluate all stages of the professional engineering work. This means that the professional engineering work must be carried out to a standard expected of a registered Professional Engineer at all times. The type of tasks a registered Professional Engineer will oversee may include the judgments made in the application of the engineering principles and data to carry out the professional engineering work. The registered Professional Engineer must be satisfied that, at all times, the unregistered engineer is exercising adequate knowledge, skill, judgement and care.

As noted earlier, the supervising registered Professional Engineer is ultimately responsible for the work that is carried out. As a supervisor you are holding out to third parties who rely on the work, that the work has been done competently and in accordance with your competency and experience. This means that

third parties are entitled to rely on the work being carried out to the same standard expected of a registered Professional Engineer, and you will be held responsible if that standard is not met.

> ***For example:***
>
> *Samira is a registered Professional Engineer who is directly supervising Sven. Sven, as the unregistered engineer, may create and complete the design drawings. However, Samira, as the supervisor, must oversee all key stages of professional engineering work. Samira should discuss all relevant engineering decisions with Sven and conduct a careful final review, including verification of key decisions and calculations.*

The example below demonstrates the level of participation a registered Professional Engineer could have in instructing, overseeing and evaluating the supervised engineer throughout the carrying out of the professional engineer work:



Appropriate records should be maintained by registered Professional Engineers for supervision

NSW Fair Trading recommends that records are kept demonstrating the direct supervision relationship. The records should clearly provide evidence of supervision of all types of professional engineering work including the approval of draft designs.

Records may be electronic or hard copy. Examples of the types of records to keep include:

- records demonstrating reviews and comments,
- emails,
- checklists,
- records of face to face meetings and video conferencing, including file notes and meeting minutes,
- records of telephone calls, and
- any other documents indicating instructions of review of work.

6.1 Checklist – direct supervision

A supervising registered Professional Engineer must:

- ✓ have direct and ongoing contact (i.e. not through a third party),
- ✓ ensure the work is within the registered Professional Engineer's registration and authorisation,
- ✓ be involved in all stages of professional engineering work and have sufficient control over the work conducted by the unregistered engineer,
- ✓ instruct, oversee and evaluate the work of an unregistered engineer to ensure the work is carried out competently,
- ✓ ensure that they have capacity to supervise the unregistered engineer,
- ✓ take responsibility for the professional engineering work being delivered,
- ✓ ensure the work is carried out in accordance with the requirements prescribed by the Act and the Regulation, including the code of practice, or another Act or law, and
- ✓ keep records demonstrating the supervision of a person.

A person working under the direct supervision of a registered Professional Engineer must:

- ✓ always act under supervision of a registered Professional Engineer,
- ✓ maintain continuous contact and take direction from the registered Professional Engineer,
- ✓ always act within their competence and expertise,
- ✓ inform their supervising registered Professional Engineer if an activity requires qualifications and experience outside their area of competence, and
- ✓ keep records demonstrating supervision.

7. What is authorised by the regulations?

If an engineer satisfies the first three criteria, i.e. they are doing professional engineering work, unsupervised, in one of the areas of engineering, they must be registered unless they are otherwise authorised by the regulations to carry out the professional engineering work.

Section 32(1)(c) of the Act provides a regulation making power to enable professional engineering work carried out by specific persons, or a class of persons, to be authorised to be carried out without being registered.

Presently, the DBP Regulation contains no authorisations. Accordingly, until the regulation making power is activated, if an engineer is doing professional engineering work, unsupervised, in one of the areas of engineering, they must be registered. Failure to register can result in a prosecution or fine.