



Determination 2019/028

Regarding the code compliance of parapet and post details without metal cap flashings to membrane decks at 17 Melford Street, St Marys Bay, Auckland

Summary

This determination considers the compliance of parapet and post details without metal cap flashings to two membrane decks. The determination discusses the details and whether the building work complies with the Building Code in regard to Clause E2 External moisture.

1. The matter to be determined

1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004¹ (“the Act”) made under due authorisation by me, Katie Gordon, Manager Determinations, Ministry of Business, Innovation and Employment (“the Ministry”), for and on behalf of the Chief Executive of the Ministry.

1.2 The parties to the determination are:

- the owners of the property who applied for the determination, C O’Brien and R Grover (“the applicants”), who are acting through an agent who is a Registered Architect² (“the architect”)
- Auckland Council (“the authority”), carrying out its duties as a territorial authority or building consent authority.

1.3 This determination arises from the authority’s decision to refuse to issue a building consent for proposed parapet and post details of two membrane decks, without metal cap flashings. The authority is concerned with the weathertightness of the details and is not satisfied that the parapet and post details to the two membrane decks would comply with Clause E2 External moisture³ of the Building Code (First Schedule, Building Regulations 1992) without metal cap flashings.

1.4 The matter to be determined⁴ is therefore whether the proposed parapet and post details of two membrane decks without metal cap flashings (drawing No. 407 dated February 2019) comply with Building Code Clause E2 External moisture.

1.5 In making my decision, I have considered the submissions of the parties and other evidence in this matter. The matter is limited to the compliance of these details and I have not considered any other areas of the membrane decks including the parapet to

¹ The Building Act, Building Code, compliance documents, past determinations and guidance documents issued by the Ministry are all available at www.building.govt.nz or by contacting the Ministry on 0800 242 243.

² Registered Architect under the Registered Architects Act 2005 are treated as if they were licensed in the building work licensing class Design 3 under the Building (Designation of Building Work Licensing Classes) Order 2010.

³ In this determination, references to sections are sections of the Act and references to clauses are to clauses of the Building Code.

⁴ Under sections 177(1)(a) of the Act

wall junction, or compliance with other Building Code clauses. I also have not considered compliance of the other proposed building work with any other aspects of the Act.

2. The building work

- 2.1 The subject building is a three storey building, which is a dwelling, situated in a medium wind zone.⁵
- 2.2 The building work included in the building consent consists of alterations to the north elevation with works altering the external envelope of the basement level, two enclosed membrane decks (one at ground floor and one at first floor level), and the installation of two skylights in existing areas of the dwelling. The north elevation is irregular in form with the location of external walls offset at different levels; part of the level one deck is located directly above the ground floor level.
- 2.3 This determination concerns parapet and post details of the two enclosed membrane decks. The decks comprise timber joists and 19mm H3.2⁶ treated plywood substrate with a polyester-reinforced bituminous torch-on membrane (“the torch-on membrane”). The decks have a slope of 2 degrees.
- 2.4 The torch-on membrane is installed over a primed surface in two layers to a nominal thickness of 4mm. The two membrane layers are heat-fused and the outer membrane has a prefinished mineral chip exposed surface.
- 2.5 The parapet detail shown in Figure 1 comprises H3.2 treated timber framing to form the parapet structure, enclosed in wall underlay, with fibre cement sheet cladding installed on a cavity. The torch-on membrane is laid across the deck, up and over the parapet and lapped over the fibre cement wall cladding. The parapet detail is finished with a H3.2 treated timber capping and facings, continuous along the length of parapet, installed with packers and spacers, over the membrane.

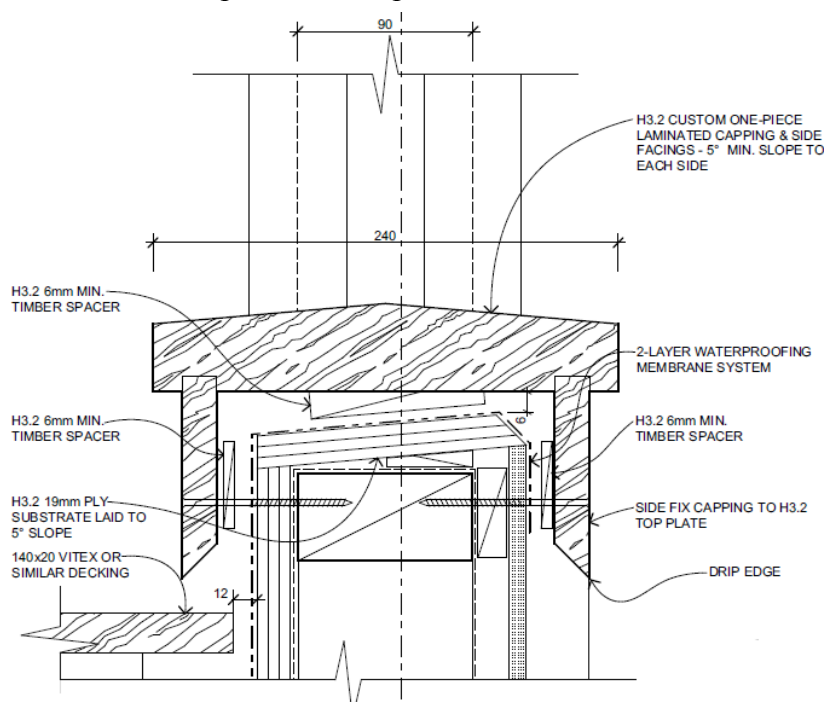


Figure 1: Parapet Detail (not to scale)

⁵ As stated on the provided architectural plans.

⁶ Timber treated to hazard class H3.2 for external use as described in New Zealand Standard NZS 3602:2003

- 2.6 The post detail is shown in Figure 2, and comprises a H3.2 treated timber post which is in line with the parapet structure so that the post protrudes from the top centre of the structure. The post detail is similar to the parapet detail in terms of the torch-on membrane turn up and lap down over the cavity-fixed cladding, with the membrane continued up the post for approximately 150mm.

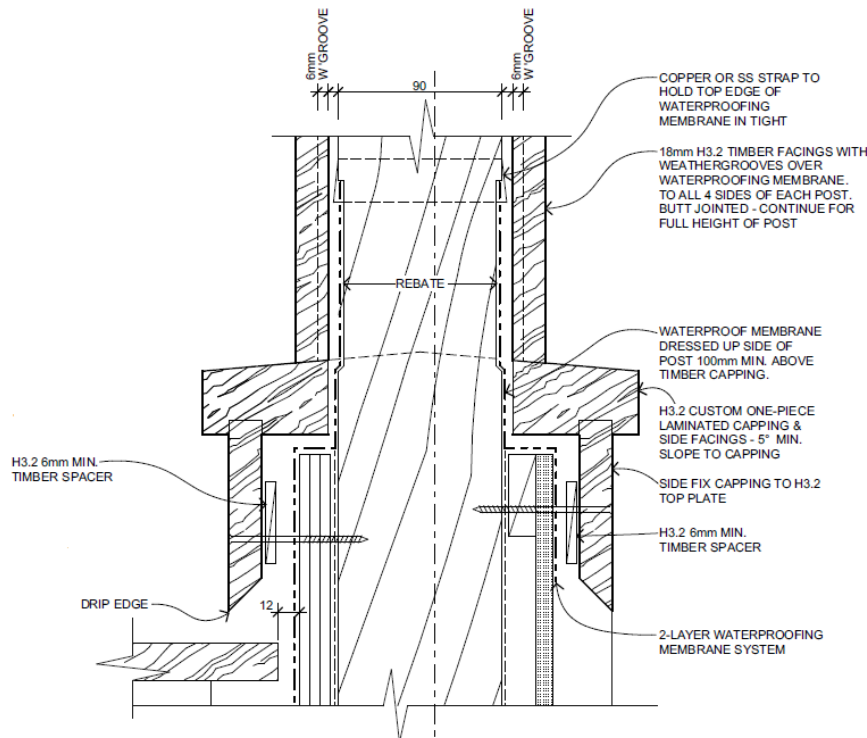


Figure 2: Post Detail (not to scale)

- 2.7 The top edge of the torch-on membrane is held in place with a metal strap. The post detail is clad with 18mm H3.2 timber facings, with weathergrooves, which are directly fixed to the timber post. The timber facings are painted and continuous over the full height of the post and terminate under a timber capping similar to that used at the parapet detail. The posts used are laminated with H3.2 treatment and consist of a combination of two sizes; 90x90mm and 100x100mm.

3. Background

- 3.1 In mid-2018 the architect applied for a building consent for the building work described in paragraph 2.2. I have not seen a copy of the building consent.
- 3.2 The architect has advised that the original building consent application proposed to construct the parapet and post details as detailed in Figures 1 and 2, without metal cap flashings.
- 3.3 However, during the processing of the building consent the authority requested further information on three occasions regarding, among other things, the proposed parapet and post design. On the first occasion, 20 June 2018, the authority requested:

“Please review the B2⁷ requirement for the barrier to prevent moisture ingress. Irrespective of paint, timber treatment, or membrane upstand, the moisture will seep through resulting [in] it getting trapped. This would compromise the structural fixings and post’s structural strength. Please provide a solution to mitigate this”.

⁷ It is assumed this refers to both Building Code Clause B2 Durability and Clause E2 External moisture, as the request relates to a combination of moisture ingress, durability and structural integrity.

...

“The details... show flashings over claddings. This is not acceptable. Please revise the details to show compliance with E2/AS1⁸.”

- 3.4 On 18 July 2018 the authority commented, among other things, that ‘the chased in flashing⁹ and flexible sealant will not prevent moisture ingress behind the flashing’. Furthermore the authority requested the architect ‘provide a different solution to show compliance with Clauses B2 and E2’.
- 3.5 On 26 July 2018 the authority wrote again requesting clarification of the details of the parapet detailed in a historic plan. The authority asked the architect to “clarify the extent of the timber facings in height and revise the detail to show weathergrooves” and that the “parapet flashings seem to have no slope”. The authority asked the architect to provide custom flashing arrangement details to ensure the post penetrations were weathertight. The authority also required the details to indicate a minimum drip edge cover. After multiple responses and requests for information the parties decided to meet to clarify matters.
- 3.6 On 21 August 2018 a meeting was held between the authority and the architect where the parties discussed potential amendments to the design details. At this meeting the architect proposed an alternative solution and the parties agreed that metal (copper) flashings would be set over the membrane upstands to the parapets and post details. The updated details for the parapet and posts stated that ‘0.7mm copper flashing’ would be used.
- 3.7 It appears the authority granted a building consent (No.BCO10268162) sometime in late-2018 for the building work mentioned in paragraph 2.2. The consent issued included the parapet and post details with metal cap flashings incorporated into the design. I have not seen a copy of the building consent however the supporting documents provide evidence of such.
- 3.8 On 23 August 2018, after the deck and waterproofing membrane were partly constructed, the architect inquired with the authority about whether the authority would consider granting an amendment to the building consent to remove the metal cap flashings. The architect with this request sent photos of the work done to date without metal cap flashings for the authority to review.
- 3.9 The Ministry received an application for a determination on 30 November 2018. I requested further information on 27 February 2019 and received a response on 28 February 2019.

4. The submissions

4.1 The initial submissions

- 4.1.1 The architect included a submission in support of the application for determination that stated (in summary):
- The original details lodged for the building consent application did not include metal flashings; however the authority “kept insisting we need metal flashings even though we thought they were redundant”.
 - The torch-on membrane cappings are as good as if not superior to the metal flashings.

⁸ Acceptable Solution for Clause E2

⁹ It is assumed this refers to the metal strap holding the top edge of the torch-on membrane in place

- Documents were provided in support of the parapet capping design without metal caps. The documents proposed an alternative solution for the timber and parapet capping¹⁰ design to meet the Building Code.
- The materials used will have a high standard of workmanship.
- After meeting with the authority to discuss the requirement of the metal cap flashings these were included in the details with the building consent documents on the basis that there was still an opportunity to revise the details.
- The architect was under the impression that once the deck and waterproofing membrane was installed, the architect could ask the processing officer to reassess the situation and revise the design without the metal flashings.
- The membrane applied to the parapet capping and extended up the posts will be more than adequate waterproofing detail without the addition of metal flashings and also “complies with the intent of ... Figure 10” of the Acceptable Solution.
- The client questioned the need for metal flashings as these (being copper) came at a high cost.

4.1.2 With the application the architect provided:

- detailed drawings of the proposed alterations of the decks with and without metal cap flashings
- a copy of the details of the proposed alternative solution for the deck design dated 23 August 2018
- correspondence between the authority and applicants
- undated photographs of work undertaken with a membrane applied over the parapet and post details.

4.1.3 The authority made a brief submission in response to the application for determination on 19 December 2018 that stated (in summary):

- Previous correspondence with the architect set out the authority’s reasoning for not accepting the detail as it is now presented without metal cap flashings.
- The metal flashings were critical in forming one of the defences to moisture penetration.
- Further design work is required to raise the level of detailing around the capping junctions with the posts and building corners.

4.1.4 On 27 February 2019 I requested information about timber treatment of some of the components of the post detail. The architect responded on 28 February 2019 providing details confirming that the framing, posts, facings and plywood are H3.2 treated timber. The architect also confirmed the facings to the post are continuous and fully enclose the post.

4.2 Draft determination and submissions in response

4.2.1 A draft determination was issued to the parties for comment on 2 May 2019.

4.2.2 In a response received on 3 May 2019 the architect accepted the draft determination with no comment.

¹⁰ Although I note the version of the alternative solution proposal provided discusses the details with metal flashings.

- 4.2.3 The authority responded on 10 May 2019 and did not accept the determination. The authority submitted the following (in summary):
- The use of metal flashings was suggested as they have superior durability and long-standing life over membrane flashings. A stainless steel flashing will provide a minimum of 50 year durability rather than 15 years provided for by membrane flashings.
 - The authority did not give the impression that revisions could be made to the approved details once constructed, as suggested by the architect in the submissions. It is the authority's view that the details could be revised through an amendment to the building consent on the basis that the revised design remained as robust as the original design.
 - Laminated timber is prone to cracking and relies on regular maintenance. The owners are responsible for the maintenance of the laminate timber to ensure it stays intact and continues to comply with the Building Code.
- 4.2.4 In response to the authority's submission dated 10 May 2019, in particular the first point, I note that section 18 of the Act specifies that –
- (1) A person who carries out any building work is not required by this Act to –
 - (a) achieve performance criteria that are additional to, or more restrictive than, the performance criteria prescribed in the building code in relation to that building work...
- 4.2.5 While I note a stainless steel flashing may achieve a 50 year durability period, the minimum requirement under Clause B2.3.1(b) for the flashing durability performance (irrespective of its material) in this case is 15 years.

5. Discussion

5.1 The matter in dispute is the compliance of the parapet and post details of two membrane decks without metal cap flashings (drawings dated February 2019) with Clause E2 External moisture. I note neither party has raised the specific matter of compliance with Clause B2 Durability and it appears not to form part of the dispute. The matter appears to relate to whether moisture ingress will occur, and the durability of the materials will be a consequence if ingress occurs, however the primary dispute is whether the proposed details comply with the performance requirements of Clause E2. Accordingly, I have not specifically addressed Clause B2 Durability unless noted in relation to Clause E2.

5.2 The legislation

5.2.1 As the matter is limited to the weathertightness of the details, the relevant clause of the Building Code is Clause E2 External moisture.

5.2.2 The relevant performance requirements of Clause E2 are provided for in Clauses E2.3.1¹¹, E2.3.2 and E2.3.5:

E2.3.1 Roofs must shed precipitated moisture. In locations subject to snowfalls, roofs must also shed melted snow.

E2.3.2 Roofs and exterior walls must prevent the penetration of water that could cause undue dampness, damage to building elements, or both.

¹¹ Clause E2.3.1, which relates to roofs, is relevant in this case because part of the level one deck forms the roof for the ground floor space below it.

E2.3.5 Concealed spaces and cavities in buildings must be constructed in a way that prevents external moisture being accumulated or transferred and causing condensation, fungal growth, or the degradation of building elements.

5.3 Compliance with Clause E2 External moisture

- 5.3.1 Section 19 of the Act provides various means to establish compliance with the Building Code including compliance with the relevant Acceptable Solution. Section 19 of the Act also outlines that a building consent authority must accept compliance with an Acceptable Solution as establishing compliance with the Building Code. E2/AS1 is an Acceptable Solution for Clause E2 External moisture, so designs that comply with E2/AS1 (“the Acceptable Solution”) are deemed to comply with Clause E2 of the Building Code. However, it is also important to note an Acceptable Solution is one way, but not the only way, of establishing compliance with the Building Code.
- 5.3.2 Given the proposed details, particularly the parapet detail, are similar in design to those detailed in the Acceptable Solution (specifically Figure 10, refer to Appendix A¹²), and that in part the requirements of the Acceptable Solution are in dispute, I will first consider the proposed details against the Acceptable Solution. Where the details deviate from the Acceptable Solution I will consider these each in turn with the relevant performance requirements of Clause E2.
- 5.3.3 In evaluating the design of the parapet and post details where those details differ from the Acceptable Solution, it is useful to make comparisons with the relevant means of compliance and other authoritative or industry sources which will assist in determining whether the details of the proposed building work are code-compliant.

5.4 Risk factors

- 5.4.1 The evaluation of building work for compliance with the Building Code and the risk factors considered in regard to weathertightness have been described in numerous previous determinations.¹³
- 5.4.2 I have considered the details of the parapet and post outlined in paragraphs 2.5 and 2.6 of this determination alongside weathertightness risk factors as follows:
- the dwelling is in a medium wind zone
 - the dwelling is a maximum of 3 storeys high with an envelope that is complex in shape
 - the decks incorporate claddings installed over a cavity
 - the deck framing appears to be specified to provide resistance to decay
 - the decks are constructed partly over a habitable space and partly extended out to create eaves of approximately 1.0m.

5.5 The membrane

- 5.5.1 The compliance of the torch-on membrane does not appear to form part of the dispute, and it is further assumed the authority does not have concerns with the membrane given it issued a building consent for the membrane to be installed to the

¹² E2/AS1 Figure 10 ‘General construction of parapet and enclosed balustrade’

¹³ Determination 2004/01 Refusal of a code compliance certificate for a building with a “monolithic” cladding system (11 March 2004) Determination 2016/004 Regarding weathertightness of some 19-year-old stucco plaster walls (4 February 2016) and Determination 2016/006 Regarding the refusal to issue a code compliance certificate for a 20 year old house with brick and weatherboard claddings (15 February 2016)

two membrane decks as the primary the weathertightness system of the decks. While I do not have confirmation of the membrane's compliance, I do note the membrane product has a CodeMark certificate¹⁴ and a BRANZ appraisal¹⁵.

5.6 Parapet (Figure 1) and post (Figure 2) details

5.6.1 The crux of the dispute relates to whether the torch-on membrane cap flashings without additional metal cap flashings will satisfy the performance requirements of Building Code Clause E2. The authority's view is that the parapet and post details with torch-on membrane cap flashings require further design work to ensure "robust" defence from moisture, comparing the proposed details with the performance of metal cap flashings. The architect does not believe that metal cap flashings were required in addition to the membrane cap flashings in order to satisfy the performance requirements of Clause E2.

5.6.2 In paragraph 5.3.2 I established that, given the proposed details are similar to those details of the Acceptable Solution, a comparison with the requirements of the Acceptable Solution is valid, and where the proposed details deviate I will consider these points in turn with the relevant performance requirements of Clause E2.

5.6.3 Paragraph 6.2 of the Acceptable Solution details the general requirements of parapets in regard to the weathertightness of the building envelope, and states the following:

6.2 General

Parapets shall be *constructed* as shown in Figure 10 [of E2/AS1], and shall comply with the following requirements:

- a) Timber for *framing* and *cavity* battens shall comply with B2/AS1,¹⁶
- b) Sloped packers under *cappings* shall be polystyrene or timber treated to B2/AS1 or minimum 9 mm H3 plywood on packers, and
- c) *Framing* shall be fully enclosed with *wall underlay* or *roof underlay*, in accordance with Table 23 [of E2/AS1] for the specific *cladding*.
- d) *Claddings* shall be installed over a cavity in accordance with Paragraph 9.1.8 [of E2/AS1].

5.6.4 The design of the parapet and in part the post generally satisfies paragraph 6.2 of the Acceptable Solution and has similarities to Figure 10 of the Acceptable Solution (refer to Appendix A). The parapet detail has the membrane installed over 19mm H3.2 plywood substrate, with the parapet cap sloped and laid to a minimum 5 degrees. The framing is enclosed with wall underlay and cladding is installed over a cavity. As stated in paragraph 5.1 of this determination, the authority has not raised concerns about the timber in relation to Clause B2; therefore I have not considered the timber and its durability in relation to Clause B2.

5.6.5 Paragraph 6.3 of the Acceptable Solution also states:

6.3 Capping materials

Parapets shall be capped with metal, butyl or EPDM¹⁷ membrane. *Cappings* shall comply with the requirements of Paragraph 4.0.

¹⁴ CodeMark is a voluntary product certification scheme that provides a way to show a building product meets the requirements of the Building Code. A product can be a building or construction method, building design or a building material.

¹⁵ BRANZ appraisals are independent evaluations for building products and systems deemed to be fit for purpose.

¹⁶ The Acceptable Solution for Building Code Clause B2 – Durability

¹⁷ Ethylene Propylene Diene Monomer rubber

- 5.6.6 I note here the torch-on membrane, which the authority issued a building consent for (refer paragraph 4.5.1), is permitted within the Acceptable Solution as a capping material to parapets.
- 5.6.7 The proposed details differ from the Acceptable Solution in several respects. In particular, the minimum slope of the top of the parapet, the parapet flashing overlap of cladding, and the post protruding from the top of parapet.
- 5.6.8 In addition to the requirements of Acceptable Solution, the architect has submitted that the proposal features an additional timber capping over the parapet with torch-on membrane capping and facings over the post, which will provide a protective layer. The proposed details demonstrate the top of the parapet is fully covered (which is also continuous along the length of the parapet and junctions with the post facings) by timber cappings over the torch-on membrane. The proposed post details (as outlined in Figure 2) show the post fully encompassed by timber facings with weathergrooves over the full height of the post up to the underside of a timber capping similar to that of the parapet. I consider the timber cappings and facings a compensating factor as these will act as a rain screen; providing first defence by deflecting¹⁸ the majority of moisture away from the torch-on membrane and its junctions, and protecting the membrane (being the primary weathertightness system) from degradation or damage.
- 5.6.9 The timber cappings are fixed through the side of the parapet and installed over spacers, and the facings have weathergrooves, providing space for the drainage and drying of any moisture that may get past the timber capping or facings.
- 5.6.10 The parapet detail deviates from the Acceptable Solution, at paragraph 6.5(a) “Tops of membrane cappings ... shall have a minimum slope of 10 degrees”. The proposed detail specifies the parapet top to have a slope of 5 degrees (refer Figure 1). I emphasise here that the Acceptable Solution is one way to satisfy the mandatory performance requirements of Clause E2 but not the only way to comply. The relevant performance requirements require the proposed detail to shed moisture away from junctions and prevent the penetration, accumulation and transfer of moisture. This performance is required not only of the parapet, but also the torch-on membrane as the weathertightness system of the decks which are also roofs.
- 5.6.11 The Acceptable Solution permits membrane decks to have a minimum slope of 1.5 degrees and membrane roofs to have a minimum slope of 2 degrees¹⁹; in this case the decks are sloped at 2 degrees. In this case, I consider the parapet slope, in combination with the timber capping being designed with spacers to allow drainage will result in the parapet being able to shed moisture, and on this basis I am satisfied that the proposed parapet details, with a 5 degree slope, will shed moisture.
- 5.6.12 The Acceptable Solution, at paragraph 6.5(b), requires the membrane capping to overlap the cladding. The details proposed by the architect show the membrane cappings to overlap the cladding. It is not clear from the proposed details as to the exact dimension of the overlap, however there is still an overlap, which from scaled drawings appear to be approximately 50mm. I consider the requirement is to ensure the completeness of the weathertightness envelope and that the envelope sufficiently covers junctions. In this instance, and taking into account the additional timber

¹⁸ Weathertightness design principles, including the ‘4D’s Approach’ (deflection, drying, drainage and durability) are explained in the document “An introduction to weathertightness design principles” published as guidance under section 175 of the Act. <https://www.building.govt.nz/building-code-compliance/e-moisture/e2-external-moisture/an-introduction-to-weathertightness-design-principles/>

¹⁹ E2/AS1 paragraph 8.5.1 at b)

- cappings and facings, I am satisfied the proposed details allow for a complete weathertightness envelope that sufficiently covers junctions to prevent the penetration, accumulation or transfer of moisture or water.
- 5.6.13 Furthermore, while not raised by the parties, I consider the installation and workmanship required of the torch-on membrane compared to a system of many metal flashings a factor. There are no mechanical junctions to be joined and fixed with a membrane capping, unlike metal cappings which can require multiple mechanical junctions to be joined and fixed. In this instance the membrane as laid provides a heat-fused multi-layered cladding that will be able to be dressed and moulded to shape of the parapet and posts. The many junctions of metal parapet cappings are difficult to form successfully and are reliant on a high level of workmanship to achieve the performance requirements of Clause E2.
- 5.6.14 I also consider the materials used are durable; the timber (post, substrate and cappings/facings) is treated to H3.2 and the cappings/facings are painted. I note the paint system provides a secondary line of protection and is considered a compensating factor where it is regularly maintained. I note here that effective maintenance is important to ensure ongoing compliance with the Building Code and is the responsibility of the building owner. The extent and nature of the maintenance will depend on the material, or system, its geographical location and level of exposure.
- 5.6.15 In conclusion, the proposed parapet detail is comparable with the Acceptable Solution. The parapets are protected by a heat-fused torch-on membrane which provides the primary defence from moisture entry. In addition to this the timber capping provides a layer of defence to weathering and damage, and the fixing of the capping (with a timber spacer) allows for drainage and drying. Therefore the features of the detail considered as a whole shed water and prevent the penetration and accumulation of water to provide a robust defence system. Accordingly, I am satisfied that the proposed parapet design satisfies the relevant performance requirements of Clause E2.
- 5.6.16 The post detail (refer Figure 2) is similar to the parapet detail (refer Figure 1) in regards to the construction of the framing, cavity fixed cladding, materials and their durability, extent and overlaps of the torch-on membrane up to the post and the additional timber cappings/facings. I consider the above discussion establishes the proposed post detail, where there are similarities to the proposed parapet detail, complies with the relevant performance requirements of Clause E2.
- 5.6.17 However, the post detail also deviates from the Acceptable Solution where the post protrudes from the top of the parapet structure, as opposed to being face-fixed to the outside of the cladding. The Acceptable Solution, at paragraph 8.5.9.1, comments that the fixing of posts into a membrane “is particularly risky, and should be avoided”. Therefore, care should be given to the design of the detail to minimise associated risk. It appears the detail in this instance has been thought through with care and the architect has described how the details will have sufficient defence to moisture ingress.
- 5.6.18 In addition to generally sharing the same materials and characteristics as the parapet detail, which I am satisfied complies with the relevant performance requirements of Clause E2, the post itself will also be wholly enclosed by treated and painted timber facings installed around and over the top of the post. The facings provide a rain screen or first line of defence to prevent the penetration water and allow for deflection of water away from the junction. The facings also have weathergrooves to

prevent capillary movement of water and which will allow for the drainage of water from the detail if water gets past the facings.

- 5.6.19 While the Acceptable Solution considers the post detail to be risky, I have considered the design details and discussed the relevant authoritative sources above. Mitigating factors in assessing its risk include: the degree of deflection provided by timber facings and timber capping to the top of the post, that weathergrooves will manage the movement of water if it penetrates the first defence of the facings and timber capping, and the material characteristics including treatment of timber and the paint system. Accordingly I conclude the post detail meets the relevant performance requirements of Clause E2.
- 5.6.20 I consider the combination of the torch-on membrane (as the primary weathertightness defence), the timber cappings and facings over the torch-on membrane (which provide deflection defence), the durability of the materials used, and other features of the proposed details that contribute to the management of water will provide adequate protection against moisture ingress.
- 5.6.21 It is emphasised that each determination is conducted on a case-by-case basis. Accordingly, the fact that a particular construction has been established as being code compliant in relation to a particular building does not necessarily mean that the same cladding system will be code compliant in another situation.

5.7 Conclusion

- 5.8 Taking in to account the discussion and reasoning above, I am satisfied the parapet (as described in paragraph 2.5) and post detail (as described in paragraph 2.6) satisfies the performance requirements of Clauses E2.3.1, E2.3.2 and E2.3.5.

6. The decision

- 6.1 In accordance with section 188 of the Building Act 2004, I hereby determine that the proposed parapet and post details of two membrane decks without metal cap flashings (drawing no.407 dated February 2019) comply with Clause E2 External moisture of the Building Code.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 26 June 2019.

Katie Gordon
Manager Determinations

Appendix A

A.1 Figure 10 from the Acceptable Solution E2/AS1:

