

1.0 APPLICATION DESCRIPTION

Application and property details

Fast-Track project name: The Point Mission Bay

Fast-Track application number: FTAA-2511-1133

2.0 Technical Specialist Memo - Lighting

To: Angelika Vaze (Lead Planner) & Warwick Pascoe (PPL)

From: Domenico De Vincentis (S&T Lighting)

Qualifications & Relevant Experience: I hold the qualification(s) of Bachelor of Architecture and have 35 years of experience in the field of professional indoor and outdoor lighting design. I am a full Associate Member of Illuminating Engineering Society of Australia and New Zealand (IESANZ). I have prepared expert evidence and technical assessments for resource consent applications and fast-track applications, provided expert advice to Auckland Council regarding outdoor lighting issues, and have appeared as an expert witness before consent authorities and the Environment Court on multiple occasions.

Preparation in Accordance with the Code of Conduct: I confirm that I have read the Environment Court Practice Note 2023 – Code of Conduct for Expert Witnesses and have complied with it in the preparation of this memorandum. I also agree to follow the Code when participating in any subsequent processes, such as expert conferencing directed by the Panel. I confirm that the opinions I have expressed are within my area of expertise and are my own, except where I have stated that I am relying on the work or evidence of others, which I have specified.

Signature:



Date: 3 March 2026

3.0 Executive Summary / Principal Issues February 2026

The proposed external lighting **complies** with the AS/NZS 1158 Lighting Standard regarding street lighting requirements and **complies** with AUP E24 Lighting Standard regarding environmental effects on the surrounding residential properties.

4.0 Documents Reviewed

The following documents have been reviewed in preparing this memorandum:

- Substantive Application for “The Point / Mission Bay” and Assessment of Environmental Effects, prepared by Bentley & Co, dated November 2025.
- External Lighting Assessment and Lighting Design Report of The Point / Mission Bay, Appendix A, B, C, D, E & F, prepared by Mesh Consulting Ltd, dated 9 October 2025

5.0 Additional Reasons for Consent Not included in AEE / Incorrect Reasons for Consent

No additional reasons were identified.

6.0 Specialist Assessment

The External Lighting Assessment prepared by Mesh Consulting Ltd includes a report with detailed lighting design layouts and calculations, and notes that the proposed external lighting has been designed and reviewed in respect of the requirements of the AS/NZS 1158.3.1:2020 Standard – Lighting for Roads and Public Spaces, and the Auckland Unitary Plan E24.6.1 Lighting Standard.

The report concludes that the proposed external lighting complies with the above noted lighting standards.

Based on AS/NZS 1158 Lighting Standard, the report details the selected lighting subcategories of the proposed development internal areas, as follows:

- Cat. PR4 for common areas and forecourts of cluster housing with medium pedestrian/cycle activity, low risk of crime and low need to enhance amenity.
- Cat. PR5 for common area and forecourts of cluster housing with low pedestrian/cycle activity, low risk of crime and low need to enhance amenity.
- Cat. PC3 for outdoor car parks with low nighttime vehicle and/or pedestrian movements and low risk of crime.
- Cat. PP4 for pedestrian and cyclist pathways with medium pedestrian/cycle activity and low risk of crime.

I agree with the selected lighting subcategories and concur that they are appropriate for the characteristics of the proposed development.

The report includes in Appendix C the calculation summaries showing the illuminance values achieved on the proposed internal roads, public areas, pathways and carparking areas, clarifying that a luminaire maintenance factor of 0.8 was used in the calculations, and comparing the resulting values with the limits requested on AS/NZS 1158.3.1 Standard for each selected lighting subcategory.

The comparison shows that all values comply with the standard requested limits.

I agree with these calculation results and concur that the proposed external lighting **complies** with the requirements of AS/NZS 1158.3.1 Lighting Standard.

The report includes on Appendixes D & E the calculation summaries showing the spill light values achieved at the property boundaries, and the luminous intensity values achieved at the surrounding properties. The report clarifies that a luminaire maintenance factor of 1.0 was used in the calculations and compares the results with the limits requested on AUP E24.6.1 Lighting Standard for curfew operational time (10pm to 7am).

The comparison shows that all values comply with the standard requested limits.

I agree with these calculation results and concur that the proposed external lighting **complies** with the requirements of AUP E24.6.1 Lighting Standard.

Additional to the above, I have assessed the proposed external lighting against the proposed AUP E24 PC79 Lighting Standard, and the AUP E27 Carparking Standard regarding lighting. The proposed external lighting complies with their requirements.

Based on the above, I conclude that the proposed external lighting complies with the requirements of AS/NZS 1158.3.1 Lighting Standards, the AUP E24.6.1 and PC79 Lighting Standards, and the AUP E27 Carparking Lighting Standard.

7.0 Section 67 Information Gap

I have identified that there are no section 67 information gaps.

Information gap	Nature of deficiency	Decision-making impact	Risk / uncertainty created

8.0 Recommendation

Based on the information provided, I support the application and recommend the following conditions be included in the Resource Consent decision:

1. Within 30 days of the development of external lighting being put into service the Consent Holder shall submit a report from a suitably qualified and experienced lighting practitioner accepted by Council, confirming the following:
 - a) The external lighting has been installed as specified on the lighting design layouts included on the External Lighting report.
 - b) The spill light at the property boundaries does not cause any adverse effect on the surrounding properties and their occupants at night-time.
 - c) There is no obtrusive glare to road users at night-time.

9.0 Proposed Conditions

I agree with the proposed conditions of consent included in the application, and specifically with the conditions proposed by the Applicants on Item 14.3, as follows:

- a) Appropriately manage effects, including providing mitigation to prevent or reduce adverse effects during and after construction.
- b) Provide suitable monitoring; and
- c) Provide for mitigation measures (including the requirement for the preparation and / or finalization of management plans, and their certification) to help prevent or reduce the actual or potential effect of the activity.

10.0 Supporting Documents

Appendix 1 - The Point Mission Bay - AUP E24_Lighting Review Assessment Report

**THE POINT - RESIDENTIAL DEVELOPMENT
MISSION BAY, AUCKLAND
EXTERNAL LIGHTING ASSESSMENT**

Job No. 50770.23

Date: 27/02/2026

The proposed external lighting design has been assessed against the requirements listed on the Auckland Unitary Plan E24 Lighting, E24 Lighting PC79, and E27 Transport (Carparking Lighting)

Criteria

Comments

AUCKLAND UNITARY PLAN - E24 LIGHTING

E24.6.1. General Standards

1	
Lighting limits must be measured and assessed in accordance with Standard AS 4282-1997 Control of the Obtrusive Effects of Outdoor Lighting, except for building façade lighting that complies with Standard E244.6.1(10). In the event of any conflict between Standard AS 4282-1997 Control of the Obtrusive Effects of Outdoor Lighting and the lighting standards set out below, the lighting standards set out below shall prevail.	E24 Lighting Standard applies.
2	
Any calculation for the purposes of these standards must be based on a maintenance factor of 1.0 (i.e. no depreciation).	All calculations are based on maintenance factor 1.0
3	
For the purposes of Standard E24.6.1(2) and Standard E24.6.1(9) the lighting category classification for each zone in Table E24.6.1.1 Lighting category classifications will apply. Where a development is located on a site which adjoins or is directly across a road from a different lighting category, the most sensitive classification of the two categories will apply.	Refer to Table E24.6.1.1 below for the selected lighting category.
4	
Where measurements of any illuminance above background levels from the use of artificial lighting cannot be made because the artificial lighting cannot be turned off, measurements may be made in areas of a similar nature that are not affected by the artificial lighting. The result of these measures may be used for determining the effect of the artificial lighting.	N/A
5	
For the purposes of these standards, the curfew time is 10pm - 7am and the pre-curfew time is 7am – 10pm.	Pre-curfew time applies.

Table E24.6.1.1 - Lighting category classifications

Zones	Lighting Category
<i>Residential - Terrace Houses and Apartment Buildings</i>	<i>Category 3 - Medium Brightness</i>
<i>Residential - Mixed Housing Suburban</i>	<i>Category 3 - Medium Brightness</i>
<i>Residential - Mixed Housing Urban</i>	<i>Category 3 - Medium Brightness</i>
<i>Open Space - Informal Recreation</i>	<i>Category 3 - Medium Brightness</i>
<i>Special Purpose - Maori Purpose</i>	<i>Category 4 - High Brightness</i>
Categories that apply at each site boundary	
<i>North</i>	<i>Category 3 - Medium Brightness</i>
<i>South</i>	
<i>East</i>	
<i>West</i>	

6

<p>The added illuminance from the use of any artificial lighting on any site must not exceed either:</p> <p>(a) The levels in Table E24.6.1.2 Horizontal and vertical illuminance at a boundary, when measured at the boundary of any adjacent site containing a lawfully established dwelling. The illuminance limit will apply horizontally and vertically at any point on the boundary and at any height; or</p> <p>(b) The vertical illuminance limits in Table E24.6.1.3 Vertical illuminance at a window, when measured or calculated at the windows of habitable rooms of a lawfully established dwelling.</p>	<p>Preferred option: (a) Curfew time - Horizontal and vertical illuminance limit at boundary - 10 Lux applies - Max. value 7 lux</p> <p>Complies (Refer to table E24.6.1.2 below)</p>
--	--

Table E24.6.1.2 Horizontal and vertical illuminance at a boundary

Time	Illuminance limit
Pre-curfew	100 lux above the background level
Curfew	10 lux above the background level

Table E24.6.1.3 Vertical illuminance at a window

Time	Vertical illuminance limit for each lighting category			
	Lighting category 1	Lighting category 2	Lighting category 3	Lighting category 4
Pre-curfew	2 lux	10 lux	10 lux	25 lux
Curfew	0 lux (except public road lighting)	1 lux	2 lux	4 lux

7

<p>Outdoor artificial lighting operating on any site between sunset and sunrise must not exceed the threshold increment limit (TI) stated in Table E24.6.1.4 Threshold increment, on any public road, calculated within each traffic lane in the direction of travel.</p>	N/A
---	-----

Table E24.6.1.4 Threshold increment

Light technical parameter	Threshold increment limit for each lighting category			
	Lighting category 1	Lighting category 2	Lighting category 3	Lighting category 4
Threshold increment (TI)	15 per cent (based on adaption luminance of 0.1 cd/m ²)	15 per cent (based on adaption luminance of 1 cd/m ²)	15 per cent (based on adaption luminance of 2 cd/m ²)	15 per cent (based on adaption luminance of 10 cd/m ²)

8

<p>The exterior lighting on any property adjacent to land on which there is a dwelling must be selected, located, aimed, adjusted and/or screened to ensure that glare resulting from the lighting does not exceed the pre-curfew or curfew limits outlined in Table E24.6.1.5 Pre-curfew luminous intensity limits or Table E24.6.1.6 Curfew luminous intensity limits.</p>	<p>Lighting category 3 Size of area: small <25m Pre-curfew luminous intensity limit: 2,500 cd applies - Max. value 182 cd (Refer to Table E24.6.1.5 below)</p> <p style="text-align: right;">Complies</p>
--	---

Table E24.6.1.5 Pre-curfew luminous intensity limits

Intentionally illuminated area		Pre-curfew luminous intensity limit for each lighting category			
Size of area (based on the controlling dimension)	Controlling dimension (refer to Note 1)	Lighting category 1	Lighting category 2	Lighting category 3	Lighting category 4
Large	>75m	2,500 cd	7,500 cd	10,000 cd	25,000 cd
Medium	≥25m ≤75m	2,500 cd	7,500 cd	10,000 cd	25,000 cd
Small	<25m	2,500 cd	2,500 cd	7,500 cd	25,000 cd

9

<p>The average surface luminance measured in candelas per square metre (cd/m²) for an intentionally artificially lit building façade shall not exceed any one of the following:</p>	<p>N/A - No façade lighting proposed</p>
(a) 0 cd/m ² in lighting category 1;	
(b) 5 cd/m ² in lighting category 2;	
(c) 10 cd/m ² in lighting category 3; or	
(d) 25 cd/m ² in lighting category 4.	

10

<p>The limits may be determined by calculation or measurement in accordance with CIE 150:2003 Guide on the limitation of the effects of obtrusive light from outdoor lighting installations – International Commission on Illumination ISBN 3 901 906 19 3.</p>	<p>N/A</p>
---	------------

AUCKLAND UNITARY PLAN - E24 LIGHTING - PC79

E24.6.2. Artificial lighting standards for access in residential zones

1	
(a) Have lighting limits measured and assessed in accordance with Australian/New Zealand Standard Lighting for roads and public spaces (Part 3.1: Pedestrian Area (Category P) lighting – Performance and design requirements Lighting for Roads and Public Spaces (AS/NZS1158.3.1)	Complies
(b) Must be lit to the appropriate P subcategory for pedestrian access as set out in AS/NZS1158.3.1	Complies
(c) Meet the minimum P subcategories specified in Table 24.6.2.1 below:	

Table E24.6.2.1 Minimum P Subcategories

Access	Min. P Subcategory	
<i>Pedestrian access only</i>	PP3	Complies
<i>Pedestrian access adjacent to vehical access</i>	PR2	N/A
<i>Connecting elements, steps, starewells & ramps</i>	PA3	N/A
<i>Parking spaces and adjacent pedestrian access</i>	PC2	Complies
<i>Vehicle access for 4-9 parking spaces for dwellings</i>	PR5	Complies
<i>Vehicle access for 10-19 parking spaces for dwellings</i>	PR4	Complies
<i>Vehicle access for 20 or more parking spaces or dwellings</i>	PR2	N/A

(d) All light fittings must not project any light at or above the height of their light source.	Complies
(e) All light emitted from light fittings must have a correlated colour temperature of 3000K (Kelvin) or less.	Complies
(f) Spill light and glare from the lighting must meet the specifications of E24.6.1(8).	Complies
(g) The lighting must have automatic daylight controls such that the lights are on during the hours of darkness. Where automatic presence detection or sensor lighting is proposed, must be supported by a safety assessment.	Complies
(h) Lighting required by Standard E27.6.3.7(2) must be supplied from a common electrical supply.	N/A at this stage.

AUCKLAND UNITARY PLAN - E27 TRANSPORT (Carparking Lighting)

E27.6.3.7. Lighting

(1) Lighting is required where there are 10 or more parking spaces which are likely to be used during the hours of darkness. The parking and manoeuvring areas and associated pedestrian routes must be adequately lit during use in a manner that complies with the rules in Section E24 Lighting.	Complies
(2) Lighting is required in residential zones to primary pedestrian access, vehicle access, parkins and manoeuvring areas where any of the following apply: a) There are four or more dwellings accessible from a primary pedestrian access which is not adjacent to a vehicle access; b) There are 10 or more parking spaces; or c) There are 10 or more dwellings.	Complies

**THE POINT - RESIDENTIAL DEVELOPMENT
MISSION BAY, AUCKLAND
EXTERNAL LIGHTING ASSESSMENT**

Job No. 50770.23 Date: 27/02/2026

The proposed external lighting design has been assessed against the requirements listed on the Auckland Unitary Plan E24 Lighting, E24 Lighting PC79, and E27 Transport (Carparking Lighting)

Criteria	Comments
----------	----------

AUCKLAND UNITARY PLAN - E24 LIGHTING

E24.6.1. General Standards

1	
Lighting limits must be measured and assessed in accordance with Standard AS 4282-1997 Control of the Obtrusive Effects of Outdoor Lighting, except for building façade lighting that complies with Standard E244.6.1(10). In the event of any conflict between Standard AS 4282-1997 Control of the Obtrusive Effects of Outdoor Lighting and the lighting standards set out below, the lighting standards set out below shall prevail.	E24 Lighting Standard applies.
2	
Any calculation for the purposes of these standards must be based on a maintenance factor of 1.0 (i.e. no depreciation).	All calculations are based on maintenance factor 1.0
3	
For the purposes of Standard E24.6.1(2) and Standard E24.6.1(9) the lighting category classification for each zone in Table E24.6.1.1 Lighting category classifications will apply. Where a development is located on a site which adjoins or is directly across a road from a different lighting category, the most sensitive classification of the two categories will apply.	Refer to Table E24.6.1.1 below for the selected lighting category.
4	
Where measurements of any illuminance above background levels from the use of artificial lighting cannot be made because the artificial lighting cannot be turned off, measurements may be made in areas of a similar nature that are not affected by the artificial lighting. The result of these measures may be used for determining the effect of the artificial lighting.	N/A
5	
For the purposes of these standards, the curfew time is 10pm - 7am and the pre-curfew time is 7am – 10pm.	Pre-curfew time applies.

Table E24.6.1.1 - Lighting category classifications

Zones	Lighting Category
<i>Residential - Terrace Houses and Apartment Buildings</i>	<i>Category 3 - Medium Brightness</i>
<i>Residential - Mixed Housing Suburban</i>	<i>Category 3 - Medium Brightness</i>
<i>Residential - Mixed Housing Urban</i>	<i>Category 3 - Medium Brightness</i>
<i>Open Space - Informal Recreation</i>	<i>Category 3 - Medium Brightness</i>
<i>Special Purpose - Maori Purpose</i>	<i>Category 4 - High Brightness</i>
Categories that apply at each site boundary	
<i>North</i>	<i>Category 3 - Medium Brightness</i>
<i>South</i>	
<i>East</i>	
<i>West</i>	

6

<p>The added illuminance from the use of any artificial lighting on any site must not exceed either:</p> <p>(a) The levels in Table E24.6.1.2 Horizontal and vertical illuminance at a boundary, when measured at the boundary of any adjacent site containing a lawfully established dwelling. The illuminance limit will apply horizontally and vertically at any point on the boundary and at any height; or</p> <p>(b) The vertical illuminance limits in Table E24.6.1.3 Vertical illuminance at a window, when measured or calculated at the windows of habitable rooms of a lawfully established dwelling.</p>	<p>Preferred option: (a) Curfew time - Horizontal and vertical illuminance limit at boundary - 10 Lux applies - Max. value 7 lux</p> <p>Complies (Refer to table E24.6.1.2 below)</p>
--	--

Table E24.6.1.2 Horizontal and vertical illuminance at a boundary

Time	Illuminance limit
Pre-curfew	100 lux above the background level
Curfew	10 lux above the background level

Table E24.6.1.3 Vertical illuminance at a window

Time	Vertical illuminance limit for each lighting category			
	Lighting category 1	Lighting category 2	Lighting category 3	Lighting category 4
Pre-curfew	2 lux	10 lux	10 lux	25 lux
Curfew	0 lux (except public road lighting)	1 lux	2 lux	4 lux

7

<p>Outdoor artificial lighting operating on any site between sunset and sunrise must not exceed the threshold increment limit (TI) stated in Table E24.6.1.4 Threshold increment, on any public road, calculated within each traffic lane in the direction of travel.</p>	N/A
---	-----

Table E24.6.1.4 Threshold increment

Light technical parameter	Threshold increment limit for each lighting category			
	Lighting category 1	Lighting category 2	Lighting category 3	Lighting category 4
Threshold increment (TI)	15 per cent (based on adaption luminance of 0.1 cd/m ²)	15 per cent (based on adaption luminance of 1 cd/m ²)	15 per cent (based on adaption luminance of 2 cd/m ²)	15 per cent (based on adaption luminance of 10 cd/m ²)

8

<p>The exterior lighting on any property adjacent to land on which there is a dwelling must be selected, located, aimed, adjusted and/or screened to ensure that glare resulting from the lighting does not exceed the pre-curfew or curfew limits outlined in Table E24.6.1.5 Pre-curfew luminous intensity limits or Table E24.6.1.6 Curfew luminous intensity limits.</p>	<p>Lighting category 3 Size of area: small <25m Pre-curfew luminous intensity limit: 2,500 cd applies - Max. value 182 cd (Refer to Table E24.6.1.5 below)</p> <p style="text-align: right;">Complies</p>
--	---

Table E24.6.1.5 Pre-curfew luminous intensity limits

Intentionally illuminated area		Pre-curfew luminous intensity limit for each lighting category			
Size of area (based on the controlling dimension)	Controlling dimension (refer to Note 1)	Lighting category 1	Lighting category 2	Lighting category 3	Lighting category 4
Large	>75m	2,500 cd	7,500 cd	10,000 cd	25,000 cd
Medium	≥25m ≤75m	2,500 cd	7,500 cd	10,000 cd	25,000 cd
Small	<25m	2,500 cd	2,500 cd	7,500 cd	25,000 cd

9

<p>The average surface luminance measured in candelas per square metre (cd/m²) for an intentionally artificially lit building façade shall not exceed any one of the following:</p>	<p>N/A - No façade lighting proposed</p>
(a) 0 cd/m ² in lighting category 1;	
(b) 5 cd/m ² in lighting category 2;	
(c) 10 cd/m ² in lighting category 3; or	
(d) 25 cd/m ² in lighting category 4.	

10

<p>The limits may be determined by calculation or measurement in accordance with CIE 150:2003 Guide on the limitation of the effects of obtrusive light from outdoor lighting installations – International Commission on Illumination ISBN 3 901 906 19 3.</p>	<p>N/A</p>
---	------------

AUCKLAND UNITARY PLAN - E24 LIGHTING - PC79

E24.6.2. Artificial lighting standards for access in residential zones

1	
(a) Have lighting limits measured and assessed in accordance with Australian/New Zealand Standard Lighting for roads and public spaces (Part 3.1: Pedestrian Area (Category P) lighting – Performance and design requirements Lighting for Roads and Public Spaces (AS/NZS1158.3.1)	Complies
(b) Must be lit to the appropriate P subcategory for pedestrian access as set out in AS/NZS1158.3.1	Complies
(c) Meet the minimum P subcategories specified in Table 24.6.2.1 below:	

Table E24.6.2.1 Minimum P Subcategories

Access	Min. P Subcategory	
<i>Pedestrian access only</i>	PP3	Complies
<i>Pedestrian access adjacent to vehical access</i>	PR2	N/A
<i>Connecting elements, steps, starewells & ramps</i>	PA3	N/A
<i>Parking spaces and adjacent pedestrian access</i>	PC2	Complies
<i>Vehicle access for 4-9 parking spaces for dwellings</i>	PR5	Complies
<i>Vehicle access for 10-19 parking spaces for dwellings</i>	PR4	Complies
<i>Vehicle access for 20 or more parking spaces or dwellings</i>	PR2	N/A

(d) All light fittings must not project any light at or above the height of their light source.	Complies
(e) All light emitted from light fittings must have a correlated colour temperature of 3000K (Kelvin) or less.	Complies
(f) Spill light and glare from the lighting must meet the specifications of E24.6.1(8).	Complies
(g) The lighting must have automatic daylight controls such that the lights are on during the hours of darkness. Where automatic presence detection or sensor lighting is proposed, must be supported by a safety assessment.	Complies
(h) Lighting required by Standard E27.6.3.7(2) must be supplied from a common electrical supply.	N/A at this stage.

AUCKLAND UNITARY PLAN - E27 TRANSPORT (Carparking Lighting)

E27.6.3.7. Lighting

(1) Lighting is required where there are 10 or more parking spaces which are likely to be used during the hours of darkness. The parking and manoeuvring areas and associated pedestrian routes must be adequately lit during use in a manner that complies with the rules in Section E24 Lighting.	Complies
(2) Lighting is required in residential zones to primary pedestrian access, vehicle access, parkins and manoeuvring areas where any of the following apply: a) There are four or more dwellings accessible from a primary pedestrian access which is not adjacent to a vehicle access; b) There are 10 or more parking spaces; or c) There are 10 or more dwellings.	Complies