
BEFORE THE HEARINGS PANEL

In the Matter of: The Resource Management Act 1991

And Proposed Plan Change 43:
Taupō Town Centre Environment

Application By: Taupō District Council

Reply to Panel Questions and Response to Submitters at Hearing
Taupō Town Centre Environment

Matt Bonis

Dated: 31 October 2023



Taupō District Plan
CHANGES - BUNDLE ONE

INTRODUCTION AND PURPOSE

1. My name is Matthew William Bonis. I provided Planning Evidence (**the s42A Report**) on behalf of Taupō District Council regarding the notified provisions and submissions on Plan Change 40: Taupō Town Centre Environment. That evidence [3 – 10] sets out my experience, qualifications and compliance with the Code of Conduct. I retain that compliance in this Right or Reply Report.
2. I presented Evidence at the Hearing on 11 September 2023.
3. The purpose of this Report is twofold:
 - a. Respond to matters of clarification or questions as sought by the Panel during the Hearing; and
 - b. Provide a Right of Reply to additional matters raised by submitters during the Hearing. I note that if there is no specific response to a witness or Submitter, I retain my view as expressed in the s42A Report and as expressed at the Hearing.
4. All recommended changes to PC40 as undertaken through this right of reply are set out in this Report, along with a tabulated s32AA relating to the Height Overlay to assist the Panel. The amended provisions as recommended to be amended by this Report are set out in **Attachment A**.
5. To distinguish between the notified plan amendments, the recommendations contained in the s42A Report and those as revised through this Reply Report:

The **s42A recommendations** are shown in coloured text (as red underline) for new text and ~~red strike through~~ for deleted text.

The **Reply Recommended** text is shown in colour text (as purple underline) for new text and ~~purple strike through~~ for deleted text.

6. For the purposes of the **Response to questions** by the Panel, acknowledging where there is overlap in terms of my Reply to matters raised by experts and submitters, these include the following:

Building Heights

- a. **Confirmation of wiring** between Objective 3s2.2 Amenity and Heights and the amended height provisions as related to that block between Te Heuheu Street, Tongariro Street, Roberts Street and Ruapehu Street.
- b. **Lift requirements and implications on floor levels.**
- c. **Shading diagrams** for both 12m / 18m and 15m / 18m height limitations.

- d. **LWAG 8m Height Limit** – Is such a limit within Scope and ‘on the Plan Change’.
- e. **Options for metrics for Floor Levels.**
- f. **Strategic Direction wiring.**

Temporary Noise

- a. **Has the issue of noise, in terms of the s42A Recommendations been fairly and reasonably raised?**
7. For the purposes of the **Reply to matters raised by Experts and Submitters** these include the following:
- a. **Town Centre Taupō** – preclusion of Taupō Town Centre Environments not included in the specified area of opportunities for increased height.
 - b. **D Morrison** – Change of amenity and shading.
 - c. **LWAG** - Shading, massing, absence of design controls.
 - d. **New Zealand Defence Force (NZDF)** – Enablement of Temporary Military Training Activities.
 - e. **Kāinga Ora** – Confirmation of spatial extent of increased height area, recommendation of a 15m / 18m height metric.

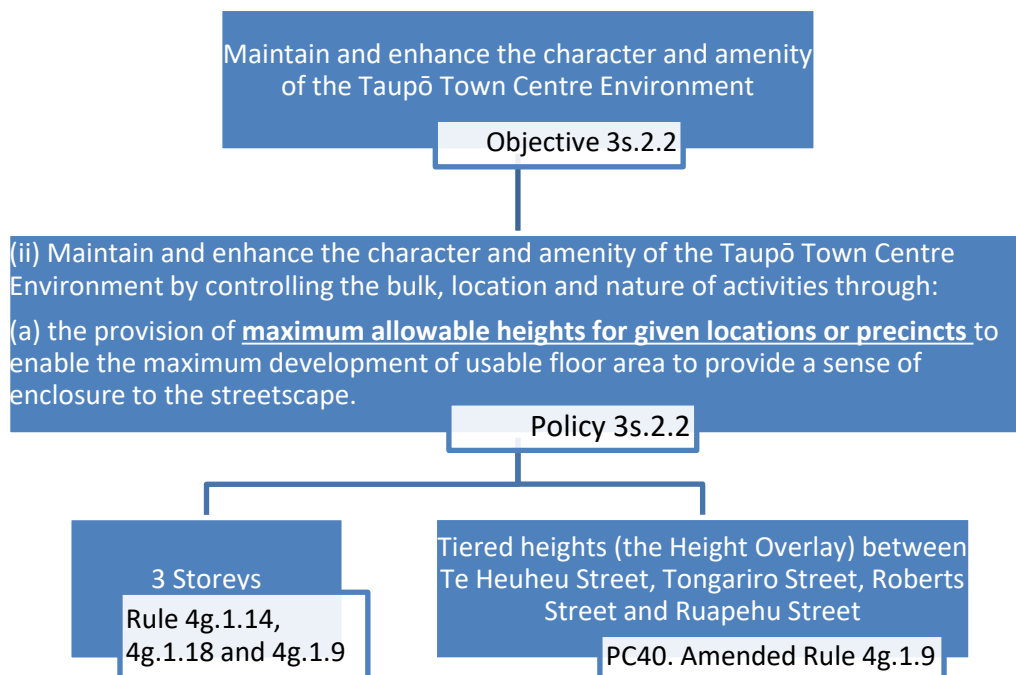
RESPONSE TO PANEL QUESTIONS

Confirmation of wiring

8. The Panel questioned whether there was sufficient ‘wiring’ within the provisions of the Taupō District Plan (the Plan) between **Objective 3s2.2** which seeks to ‘*maintain and enhance the character and amenity of the Taupō Town Centre Environment*’, and the amended height provisions as related to those blocks between Te Heuheu Street, Tongariro Street, Roberts Street and Ruapehu Street.
9. I responded at the Hearing of my reliance on the following operative Policy and that an additional policy, or amended policy was not necessary. **Policy 3s.2.2** states:
- (ii) Maintain and enhance the character and amenity of the Taupō Town Centre Environment by controlling the bulk, location and nature of activities through:*
- (a) the provision of maximum allowable heights for given locations or precincts to enable the maximum development of usable floor area to provide a sense of enclosure to the streetscape. (emphasis underlined)*

10. Accordingly, I concluded that additional specificity is not needed in terms of a linkage between the Objective and Policy¹, and subsequently the amended (PC40) Rule and existing operative Policy²
11. At the Hearing I identified that the total maximum building height in each of the respective Precincts (Retail Expansion³, Fringe Commercial Precinct⁴, Pedestrian Precinct⁵) is three (3) floors above ground level.
12. Simply put, the Operative Plan at **Policy 3s.2.2(ii)(a)** establishes *the provision of maximum allowable heights (plural) for given locations (also plural) and precincts*, despite the Operative Plan rules providing for a uniform three (3) storey height across all three precincts. Accordingly, the amended height in tiers (**the Height Overlay**) as associated with PC40 already has an Operative Plan policy ‘hook’ to link to, and additional amendments to the Policy (or introduction of new Policy) is considered unnecessary.
13. A ‘wiring diagram’ is provided below.

Figure 1: Wiring diagram – Operative Plan Policy ‘hook’ for tiered heights



¹ S75(1)(b) RMA1991

² S75(1)(c), s76(1)(b), s32(1)(b)

³ Rule 4g.1.14

⁴ Rule 4g.1.18

⁵ Rule 4g.1.9

14. Should the Panel however consider that greater specificity is required, **Policy 3s.2.2(ii)(a)** could be amended as follows, noting that such a level of specificity is unusual within the Taupō District Plan. I consider that such an amendment is within the nature of both the Plan Change and submissions (both for and against the provisions).

(ii) Maintain and enhance the character and amenity of the Taupō Town Centre Environment by controlling the bulk, location and nature of activities through:

- (a) the provision of maximum allowable heights for given locations or precincts to enable the maximum development of usable floor area to provide a sense of enclosure to the streetscape. (emphasis underlined), including tiered building heights for locations adjoining Te Heuheu Street, Tongariro Street, Roberts Street and Ruapehu Street to provide for a greater scale and form of development that takes account of local context and is of a high quality and design.*

Lift requirements and implications on floor levels.

15. Whilst I am unable to locate within the Building Act or Building Code specific requirements associated with the requirement for Lifts, NZS 4121:2001 'Design for Access and Mobility – Buildings and Associated Facilities' states (as guidance) at Section 9.1.3 'Provision of Lifts' the following:

9.1.3 Provision of Lifts

9.1.3.1 General

An accessible route shall include a lift to upper floors where:

- (a) Buildings are four or more storeys high;*
- (b) The upper floor(s) of any building are to be used as the public reception areas of:*
- a. Banks*
 - b. Central government offices or government agencies;*
 - c. Regional government offices*
 - d. Local government offices.*
 - e. Local government offices and facilities.*
- (c) The upper floor(s) are designed or intended to be used as:*
- a. Public areas of hospitals, medical consulting rooms, dentist surgeries, and other primary health care centres;*
 - b. Place of public assembly for 250 or more people;*
 - c. Public libraries.*

9.1.3.2 Two and three storey buildings

Where 9.1.3.1 is not applicable a lift is not required when:

(a) Buildings are two storeys high and have a gross floor area of the upper floor of less than 400m²;

(b) Buildings are three storeys high and have a gross floor area of the upper floors of less than 500m²;

Provided that the ground floor complies with the requirements of this standard and the upper floors have access for ambulant people with disabilities.

16. Whilst there are several variations to the provision of lifts, the orthodox requirement relates to four or more storeys. I note that a number of witnesses referred the Panel to a requirement for a lift at three (3) storeys, however from this analysis such may be better considered a market preference – especially as related to commercial activities.

Shading diagrams

17. As requested by the Panel these are provided by Mr Compton-Moen in **Attachment B** (including those associated with a 12m / 15m Roberts Street consideration). The following table as sourced from Attachment B is reproduced below:

Figure 2: Increases in shading vs height

BUILDING HEIGHT	NUMBER OF ANNUAL SUNLIGHT HOURS			
	10m (proxy for Operative Plan)	12m	15m	18m
ROBERTS ST	2524.3	2322.8 (8% LOSS)	2118.94 (17% LOSS)	
RUAPEHU ST ⁶	2896.6	2596.3 (11% LOSS)		
TŪWHARETOA	2524.3	-	2118.94 (17% LOSS)	1971.3 (22% LOSS)

18. I have recommended in response to the Kāinga Ora Hearing evidence, and as based on the expert advice of Mr Heath (**Attachment C**) and Mr Compton Moen (**Attachment B**) that a tiered height for Roberts Street, Tūwharetoa Street and Te Heuheu Street is 12m / 18m / 18m and 15m respectively. A tabulated s32AA and associated shading diagrams has been provided in this Response.

⁶ A mix of 12m and 18m buildings were assessed for Ruapehu Street

LWAG 8m Height Limit – Is such a limit within Scope and ‘on the Plan Change.

19. Representatives for LWAG at the Hearing requested the imposition of an 8m height maximum on buildings (at least on Roberts Street) as implemented through PC40. I consider the merits of such an outcome further below.
20. The Panel has requested that I provide further consideration as to the ‘scope’ of the Plan Change to accommodate the 8m height limit promoted by LWAG.
21. As contained in the s42A Report [61 – 63] a summation of permissible scope is that submissions are required to be ‘on’ (or within the ambit of) Plan Change 40.
22. There is a considerable line of cases setting out the permissible scope of submission on a Plan Change⁷.
23. The general tests contained in *Clearwater* and endorsed in *Motor Machinists* is:
 - a. can the submission reasonably be said to fall within the ambit of the Change does the submission address the change to the status quo advanced by the change; and
 - b. is there a real risk that persons potentially affected by the submission would be denied an effective opportunity to respond in the change process.
24. In addition, whether a submission is “on” a variation will be a question of scale and degree in the particular circumstances⁸.
25. Relating these principles to the request at the Hearing by LWAG endorsing an 8m height limit, I consider the following to be relevant:
 - a. The Operative Plan imposes a maximum building height of three (3) floors above ground level. As has been discussed, and recognising variability in the provision of individual floor heights, experts for the Council have used a 10m building height as a proxy, including for the purposes of producing shading diagrams (**Attachment B**).
 - b. Plan Change 40 sought to increase building heights to a tiered approach for a specific block between Roberts Street, Te Heuheu Street, Tongariro Street, and Ruapehu Street.
 - c. The range of submissions received on this matter is outlined in Sections 4.4.6 (Spatial Location of increased heights), 4.4.7 Increased Scale and Spatial Location, and 4.4.8 Support for PC40 Building Heights. Importantly, I note that **there are no submissions**, including that from LWAG **that seek a specified decrease** in maximum building heights from that contained in the Operative District Plan. However, **the LWAG submission does incorporate a relief that could extend to single storey buildings along Roberts Street**. I have included the LWAG summary of submission (OS101.5) below:

⁷ References include: See *Clearwater Resort Ltd v Christchurch City Council*, High Court Christchurch AP34/02 (14 March 2003); *IHG Queenstown Ltd v Queenstown Lakes District Council*, Environment Court Christchurch C078/08; *Palmerston North City Council v Motor Machinists Ltd* [2013] NZHC 1290; *Well Smart Investment Holding (NZQN) Ltd v Queenstown Lakes District Council* [2015] NZEnvC 214; *Calcutta Farms Limited v Matamata-Piako District Council* [2018] NZEnvC 187; *Patterson Pitts Limited Partnership v Dunedin City Council* [2022] NZEnvC 234.

⁸ *Option 5 Inc v Marlborough District Council* (2009) 16 ELRNZ 1 (HC)

OS101.5	LWAG	Plan Change 40 - Taupo Town Centre Environment > 3s Taupo Town Centre Environment	Seek amendment	Taupo is traditionally a low-rise urban landscape which is valued, we believe, by both residents and visitors. We are concerned with the adverse amenity effects of 4-story buildings on the lakeshore and their visual impact in the newly upgraded lakefront area (Robert St/Lake Tce). Also, the visual amenity from the Lake itself will be adversely affected by this development	LWAG ask that any multi-story buildings be limited to a zone at least two blocks back from the road/lakefront in the Taupo Town Centre. LWAG also seeks inclusion performance standard for the provision for secure multi-use active transport parking (Ebikes, bikes, scooters etc), provisions for tree planting/vegetation, and the encouragement of incorporating vertical gardens/rooftop gardens and provision for all new builds to incorporate rainwater harvesting systems designs.
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26. On the basis of the ‘Scope’ principles identified above, the LWAG submission could be read to reduce the Operative Plan Building Heights in the Commercial Zone. Accordingly, the relief requested at the Hearing of the imposition of an 8m height limit is fairly and reasonably raised by the submission, **although it challenges the status quo as advanced by the change.**
27. Accordingly, I consider that the Panel does have scope to impose an 8m height limit as raised by LWAG at the Hearing. I have as below and in the s42A Report however, recommended that such an approach would not be the more appropriate.

Options for metrics for Floor Levels

Metres vs Number of Floor levels

28. The Panel raised questioned the appropriate ‘metric’ to be applied in terms of the PC40 Rules for that area with tiered heights. This is in the context of the three (3) storey limitation applied within the Operative Plan across the three Town Centre precincts.
29. As identified in the s42A Report⁹ the basis and support of the three-storey Operative Plan limit is founded in the Taupō Commercial and Industrial Structure Plan (2011) to ensure variability. That metric was also supported by submitters at the Hearing as associated with ensuring variability of building form through the broader Town Centre (Town Centre Taupō).
30. PC40 did not seek to amend height limits in the broader Town Centre. For those areas where PC40 recommended additional capacity to be developed through increased heights a metric (in metres) was applied as such is considered more measurable and certain (than reference to the number of floors).
31. Accordingly, I consider that a split metric between height in metres as limited to the Height Overlay with the balance zoned area being considered by 'height in floors' is appropriate in Taupō District Plan context, acknowledging that such is unusual in the context of a District Plan. However, the approach introduced through PC40 (as reliant on a certain and measurable metric) is clearly not considered inappropriate in application under s32 of the Act.

⁹ S42A [111]

Options for Floor levels and Heights

32. The Panel suggested that consideration be given to options for specifying height levels within the PC40 Rules as associated with the Height Overlay. The options outlined included:
- a. Option 1 - Maximum height in metres in conjunction with explicit requirements for a floor to ceiling at grade minimum level, and explicit requirements for minimum loft level heights for floors above grade.
 - b. Option 2 - Maximum height in metres in conjunction with explicit requirements for a floor to ceiling at grade minimum level.
 - c. Option 3 - Maximum height in metres in conjunction with an explicit limit as to the number of floors to ensure that there is an appropriate floor to ceiling ratio between levels.
33. This matter has been considered by both Mr Compton-Moen (**Attachment B**) and Mr Heath (**Attachment C**). The following principles are agreed:
- a. That the requirement for a **minimum ground floor stud height** has economic and design benefits associated with providing increased flexibility and use of the ground floor street facing space beyond the initial lease¹⁰, provides buildings with a stronger edge to the street, as well as increasing natural light within building voids and sense of spaciousness¹¹. Both Mr Heath and Mr Compton-Moen agree that a 3.5m minimum ground floor stud height is appropriate within a Taupō Town Centre environment.
 - b. That a requirement for **upper loft level minimum heights** is unnecessary, as this can be addressed by the market¹² and the building code specifies minimum ceiling heights as sufficient for either office or residential use.
34. Based on the evidence of Mr Heath and Mr Compton-Moen, I agree that an explicit requirement relating to minimum ground floor stud height has material economic, social and design benefits that outweigh the costs associated with regulation. I also accept their advice that additional controls are not required for loft levels above grade, that is, the benefits of the regulation do not outweigh the costs.
35. Accordingly, from the Options above, Option 2 is the more appropriate with reference to s32AA in terms of a consideration of the costs and benefits, and would be the more effective in terms of implementing and achieving **Objective 3s.2.1** (Reinforce and strengthen the Taupō Town Centre Environment and **Objective 3s.2.2** (Maintain and enhance character and amenity). Notification where a proposal does not provide a compliant minimum ground floor stud height is recommended to be precluded on the same basis as the application of the Urban Design provision (Rule 4g.1.10(ii))¹³.
36. In terms of Scope to achieve to insert such a rule, I refer to the principles as outlined in the discussion below regarding additional thresholds for noise as these relate to temporary

¹⁰ Heath Attachment C [page 3]

¹¹ Compton-Moen. Attachment B [page 6]

¹² Heath Attachment C [page 4]

¹³ S42A [154 – 159]

events. That is, the recommended rule (in this case minimum ground floor stud height) is connected to the purpose of the change, and is within the ambit of submissions received in relation to the Height Overlays.

37. The amended Rule package with new inserted rule 4g.1.11 (and necessary assessment matter as 4g.4.14) is recommended as follows:

4g.1 Performance Standards

PERFORMANCE STANDARDS FOR TAUPŌ TOWN CENTRE PRECINCTS

ADDITIONAL PERFORMANCE STANDARDS FOR THE PEDESTRIAN PRECINCT

4g.1.8 Building Setback

...

4g.1.9 Maximum Building Height **The maximum height of any building shall be as follows:**
 i. ~~Total~~ **Maximum** height of three (3) floors above ground level. **except where provided by (ii) below:**
 ii. **The maximum height shall be in accordance with the Taupō Town Centre Environment Height Overlays in the planning maps.**

4g.1.10 Urban Design
 i. **Any building within the Taupō Town Centre Environment Height Overlays in the planning maps that exceed a total height of (3) floors above ground level.**
 ii. **Any application arising from this rule shall not be limited or publicly notified.**

4g.1.11 Minimum ground floor stud height
 i. **Any new building within the Taupō Town Centre Environment Height Overlays in the planning maps shall provide a minimum ground floor stud height of 3.5m as measured from the ground floor surface to the bottom of the floor slab above.**
 ii. **Any application arising from this rule shall not be limited or publicly notified.**

....

4g.4.13 Urban Design
a. The extent to which the proposed building will:
 i. **promote active engagement with, and contribute to the vibrancy and attractiveness of, any adjacent streets, lanes, public spaces including Tongariro Domain, and the foreshore with Lake Taupō and Lake Terrace;**
 ii. **take account of nearby buildings in respect of the exterior design, architectural form, scale and detailing of the building.**

4g.4.14 Minimum ground floor stud height
 a. **The extent to which the building design at ground floor remains capable of being able to cater for a range of alternative activities in a Town Centre context.**

- b. Whether there are particular aspects of the proposed activity that require a difference ground floor stud height having regard to the functional needs of that activity.

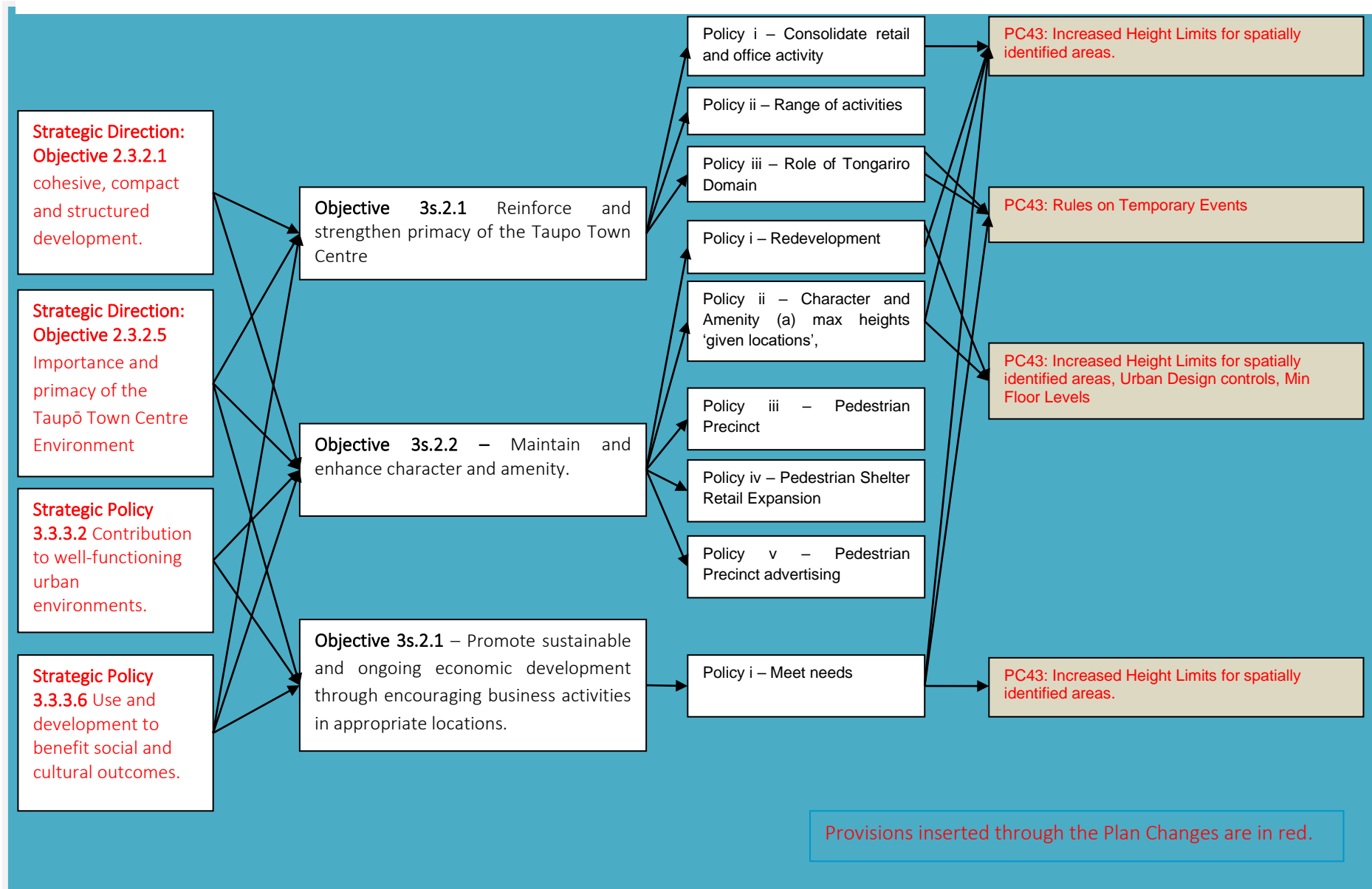
Strategic Directions Wiring

38. The following responds to the Panel's request to provide a 'wiring' diagram connecting the provisions introduced through PC38¹⁴ to the Operative Plan Objectives and Policies, and provisions thereby introduced through PC40.

¹⁴ Post Hearings Version as dated Sept 2023.

<https://www.taupodc.govt.nz/repository/libraries/id:25026fn3317q9slqygym/hierarchy/Council/Consultation/District%20Plan%20Changes%2038-43/PC38%20post%20hearing/5.%20Ch2%20Strategic%20Directions%20Hearing%20version.pdf>

Figure 3: Wiring Diagram – Strategic Directions to PC43 Provisions



Has the issue of noise, in terms of the s42A Recommendations been fairly and reasonably raised?

39. This matter relates to the recommended controls on temporary noise as recommended in the evidence of Mr Ellerton and the s42A Report.
40. As outlined in the s42A Report, matters associated with Scope are set out in Section 3 – Procedural Matters. I have identified that in terms of Scope I am reliant:
- on the submission from Terry Palmer (which) addresses the Plan Change seeking a reduction where impacts occur on residential areas; the submission from Cheal (whilst in support) seeks consideration of the linkage to noise from the extended period (of Temporary Activities). Accordingly, I consider that the scope of those submissions encompasses the recommendation provided within this s42A Report.*
41. I have set out above, in relation to the discussion regarding LWAG, the principles associated with considering Scope. These relate to the following two questions:
- a. can the submission reasonably be said to fall within the ambit of the Change does the submission address the change to the status quo advanced by the change; and
 - b. is there a real risk that persons potentially affected by the submission would be denied an effective opportunity to respond in the change process.
42. In terms of (a) the summary of the submission from Palmer¹⁵ is explicit in its relief that it is *opposed* to the amendments introduced through PC40 as associated with Temporary Activities.
43. The Plan Change includes a broad change to the Temporary Activities provisions, and there is a submission from Mr Palmer seeking to oppose those changes. The submission is connected to the purpose of the change, and as summarised and publicly notified, provides an opportunity for members of the Public to consider the spectrum of relief (between the PC40 changes to Temporary Activities and opposition stated by Mr Palmer (and conditional support within the Submission of Cheal albeit to introduce additional controls¹⁶).
44. In terms of Natural Justice and Fairness, the Plan Change clearly and explicitly incorporates amendments to the Temporary Activities provisions of the Plan. Any party concerned with regulation associated with temporary activities was therefore appropriately alerted to the consideration that PC40 would be amending these provisions, and is able to provide a primary submission (in either support or opposition, or conditional). There are a number of parties that did as identified in Section 4.3 of the s42A Report.
45. In addition, the summary of submissions identifies the opposition of Mr Palmer to the amended provisions and provided an opportunity for parties to provide further submissions (either in support or opposition). The further submission process has been

¹⁵ OS38.3

¹⁶ OS79.5

utilised (but not on this specific issue) by Town Centre Taupō against the provisions sought by the New Zealand Defence Force to enable Temporary Military Training Activities.

46. As also discussed at the Hearing:
- a. both Mr Ellerton and myself met with the Taupō Council's Events Team (as the group facilitating temporary events) well prior to the Hearing to explain the recommended amendments.
 - b. the event frequency / noise threshold pyramid of regulation as recommended is an orthodox approach to managing Temporary Activities within District Plans.
 - c. the recommended amendments to the provision have been sought to be confined to the envelope of the submission from Mr Palmer, that is noise controls are to be enforced (only) at the Residential Environment interface.
47. In summary:
- a. the procedural matters associated with this issue are explicitly canvassed in the s42A Report;
 - b. Mr Ellerton's evidence is that the operative provisions for Temporary Activities could result in unintended consequences, and that constraints are necessary to be introduced through PC40 to ensure a balance between facilitating temporary events (and associated social and economic enablement) and annoyance at the nearest residential dwelling in a residential environment.
 - c. The Plan Change clearly clearly and explicitly incorporates amendments to the Temporary Activities provisions of the Plan, and was notified and submissions and further submissions sought on such.
 - d. The submission from Palmer opposing the Temporary Activities provisions provides Scope for the amendments recommended.

REPLY TO MATTERS RAISED BY EXPERTS AND SUBMITTERS

Taupō Town Centre – preclusion of Taupō Town Centre Environments not included in the specified area of opportunities for increased height.

48. The Hearing evidence from the Town Centre Taupō group was that the increased height levels should not be as spatially confined as included in PC40, and should provide other locations where increased height and density may lead to beneficial redevelopments in other locations within the Taupō Town Environment.
49. This matter is canvassed at Section 4.4.7 of the s42A Report. I retain my recommendation that a combination of spatial extent and increased height is the more appropriate to ensure certainty and opportunities for cohesive redevelopment with a focus on that area fronting the Lake Front. The area subject to the Height overlay is the subject of recent public investment in streetscape improvements, and a number of resource consents obtained to provide developments in excess of the operative Plan height standards.
50. I would however point both the Panel and the Submitter to the interplay of Rule(s) 4g.2.3 and the respective Precinct Height Rules. In effect a breach of the Height rule renders an

activity a **Restricted Discretionary Activity**, which under the architecture of the Resource Management Act 1991 is considered to be a relatively enabling consenting status. The respective matters of the Council's discretion for such are listed in Rule 4g.4.3. Accordingly, a well-designed proposed building which exceeds three (3) storeys would not be unduly precluded by the application of the District Plan.

D Morrison – Change of amenity and shading

51. The submitter raised concerns associated with targeted increased building heights. Matters raised included concerns as to a loss of rural feel and character, as well as unnecessary shading.
52. The s42A Report considers these matters¹⁷. I acknowledge Ms Morrison's concern with regard to character but consider that the amended provisions are to assist with reinvestment and redevelopment of existing (and in some instances quite dated) building stock.
53. As identified by Mr Compton-Moen, effects associated with shading and changes in character are appropriately moderated by the proposed urban design controls.
54. Mr Compton-Moen has also reconsidered the submission from Kāinga Ora (as discussed below) and recommends retention of the 12m height limit associated with Roberts Street to ensure an appropriate balance between access to solar gain (shading) and reinvestment and development. I agree.

LWAG – Shading, massing absence of design controls

55. With regard to massing, building height (and shading) I have identified that I do consider that there is Scope within the LWAG submission to lower building heights (particularly Roberts Street) to 8m.
56. Regardless, I consider the merits of such are inappropriate in terms of s32AA. The costs of the reduction in height allowance detracts from reinvestment, and may actually displace redevelopment and consolidation into areas of the Town Centre Environment which are not as accessible, cohesive or legible.
57. As above, Mr Compton-Moen has recommended retention of a 12m height limit associated with Roberts Street on the basis of shading effects (an increase in shading from 7% at 12m in height to 17% for 15m), whereas the economic evidence of Mr Heath is that a 15m height limit may be the more appropriate in terms of land use efficiency, but carries with it adverse effects in terms of economic performance of the Roberts Street strip for hospitality. A 12m height limit fronting Roberts Street has been recommended.

¹⁷ S42A [Section 4.4.3]

58. The submitter group also criticised the absence of urban design regulation associated with the provisions, referencing detailed provisions relating to the Tekapo and Queenstown Town Centres.
59. The increased height provisions are accompanied by explicit requirements associated with urban design. As also noted in the s42A Report¹⁸ there are also built form standards such as glazing and veranda requirements which provide a permitted activity approach (non-consenting) that address a number of built form and design matters and are considered to be both effective and efficient in achieving **Objective 3s.2.2**.
60. Taupō, Tekapo and Queenstown are materially different in terms of context, urban form and design, but also in terms of both the District Plan approach to development and market interest.
61. My professional experience of both Tekapo¹⁹ and Queenstown Town Centres²⁰ is that they are the subject of considerable, directive and prescriptive urban design controls and guidelines on matters that extend from building scale, design elements, materiality, fenestration, and architectural features. Whilst not an urban designer, but being familiar with all three centres I would consider that Tekapo and Queenstown have an agreed consistent, legible and uniform design, materiality and character, whereas Taupō Town Centre does not.
62. Importantly, I am unaware of a community agreed (through a public process including that under the RMA or LGA2002) set of guidelines on what the Taupō Town Centre character or *vibe* is, and therefore how such a character should be maintained and enhanced.
63. As identified in the economic evidence of Mr Heath²¹ and to better achieve and implement **Objective 3s.2.1** (reinforce and strengthen the role of the Taupō Town Centre) through encouraging redevelopment, I disagree with the contention from LWAG that a suite of explicit and prescriptive design requirements is necessary, or even appropriate. To the contrary, in the Taupō context, I would consider that such would increase uncertainty and decrease reinvestment and associated redevelopment.
64. Regardless, LWAG neither included such matters within its submission or through evidence. Accordingly, there is no ability to test the veracity and implications of any potential additional urban design requirements, or the extent by which particular matters represent a community held view. Regardless, PC43 as notified is not silent on urban design, and as identified by Mr Compton-Moen contains matters that are '*clear in their intention and their purpose*'²².
65. Accordingly, I recommend rejection of the matters raised by LWAG during the Hearing.

¹⁸ S42A [144]

¹⁹ Rule PEC1-S1 RDIS

https://docs.isoplan.co.nz/figures/mackenziereview/144/PC21%20_%20Appendix%20%20_%20APP2_FINAL_Rev1.pdf

²⁰ Rule 12.4.7 'Queenstown Town Centre Special Character Area Design Guidelines (2015).

²¹ S42A Attachment C Heath [5.6]

²² S42A Attachment D Compton-Moen [17]

New Zealand Defence Force – Enablement of Temporary Military Training Activities (TMTA)

- 66. As identified in my Hearing Summary, the amended relief from the NZDF seeks to include a suite of permissive provisions for TMTA as inclusive of the revised separation distances identified by Mr Humpheson for impulsive noise, helicopter movements and generators. These separation distances are predicated on ‘noise sensitive activity’.
- 67. Noise Sensitive Activities are undefined in the Plan (nor does the submission suggest a definition) but would invariably relate to residential activities and guest accommodation as permitted in the Taupō Town Centre Environment.
- 68. Accordingly, even the revised provisions for impulsive noise would preclude, without consent, the TMTA activities sought to be provided for by NZDF within the Taupō Town Centre Environment and as shown in the figure below.

Figure 4: Separation Distances to Sensitive Activities – NZDF Relief



69. Put plainly, under either the Operative Plan, PC43 or as amended by the NZDF provisions – TMTA would be deemed under Rule 4g.2.2 as a Restricted Discretionary Activity (under Rule 4g.2.3) and require consent. Regardless, as outlined in the evidence of Mr Ellerton, TMTA activities of the nature of impulsive noise and helicopters is not compatible with the anticipated Town Centre Environment amenity.
70. I agree with Mr Humpheson²³ that a number of the TMTA activities may not generate noise, and that there are a number of the more benign activities contained in the evidence of Ms Davies²⁴ that could well be permitted by the Operative Plan standards within the Taupō Town Centre Environment without amendment to the Temporary Activity rule.
71. I do not consider that the amendments sought by the NZDF are either effective in achieving the Plan provisions, nor efficient in considering their social and wellbeing costs.

Kāinga Ora – Confirmation of spatial extent of increased height area, recommendation of a 15m / 18m.

72. Mr Liggett presented Corporate evidence on behalf of Kāinga Ora.
73. That evidence confirmed and supported the imposition of the spatial extent as associated with an elevated minimum height for the Taupō Town Centre Environment Height Overlays.
74. Mr Liggett queried whether a permitted 15m / 18m tiered height would be more appropriate than the 12m / 18m tiered height recommended in the s42A Report. He recommended that the former would have significant advantages in terms of flexibility of floor-to-floor heights, broaden a projects market appeal and also its economic viability. That evidence is agreed with by Mr Heath²⁵ and Mr Compton Moen, albeit with reservations as to the extent of shading generated by building massing associated with a 15m height limit along Roberts Street.
75. This matter has been evaluated by both myself, Mr Compton-Moen (**Attachment B**) and Mr Heath (**Attachment C**). Given the 15m tier height limit benefits as agreed to between Mr Heath and Mr Compton-Moen, two options are considered in a tabulated s32AA format as below:
 - a. Option 1 – Recommended Approach: 12m Roberts Street, 18m Tūwharetoa Street, 15m Te Heuheu Street.
 - b. Option 2 – Kāinga Ora Approach: 15m Roberts Street, 18m Tūwharetoa Street, 15m Te Heuheu Street.

²³ EIC Humpheson [13]

²⁴ EIC Davies [15]

²⁵ Attachment C. Heath [page 3]

Figure 5: Consideration of Height Options for Roberts Street, Tongariro Street, Te Heuheu Street and with frontage to Ruapehu Street

	Recommended Approach	Kāinga Ora Recommended Approach
	Tiered Height of Roberts Street 12m, 18m fronting Tūwharetoa Street than 15m fronting Te Heuheu Street	Tiered Height of Roberts Street 15m, 18m fronting Tūwharetoa Street than 15m fronting Te Heuheu Street
Economics		
<i>Benefits</i>	<ul style="list-style-type: none"> Provides opportunities for uplift and redevelopment of a cohesive locale. Recognises existing consented baseline. Recognises and enhances significant community investment in the public realm. 	<ul style="list-style-type: none"> Provides opportunities for uplift and redevelopment of a cohesive locale and increases additional consolidation of activity²⁶. Recognises existing consented baseline The height from 12m to 15m would create the development scope for a fourth level or mezzanine floor to be included in a building²⁷. The height from 12m to 15m would enable greater stud height²⁸.
<i>Costs</i>	<ul style="list-style-type: none"> Viability of redevelopment may be (modestly) impacted by reduced 12m height limitations fronting Roberts Street but would still provide more flexibility than Operative plan²⁹. 	<ul style="list-style-type: none"> For Roberts Street only, increased shading (at 15m) as predicated on analysis by Mr Compton-Moen which casts a greater shading area on public realm and likely to adversely affect hospitality as provided in this area³⁰ and given the importance of this area in terms of tourism and visitor expenditure.
Urban Design		
<i>Benefits</i>	<ul style="list-style-type: none"> Provides for tiered approach, with (up to) four storeys fronting Roberts Street and greater consolidation of Te Heuheu Street, recognising the sensitivities of that area fronting the Lake Front and recent public investment in streetscape improvements and need for 	<ul style="list-style-type: none"> Provides for tiered approach, greater flexibility for design and redevelopment and greater consolidation for entire block. For frontage with Te Heuheu Street providing for a blended streetscape recognising the existing (and three storey anticipated)

²⁶ Attachment C. Heath [page 3]

²⁷ EIC Liggett [6.5]

²⁸ Attachment C. Heath [page 3]

²⁹ Attachment C. Heath [page 4]

³⁰ Attachment C. Heath [page 4]

	greater levels of solar gain. For frontage with Te Heuheu Street providing for a blended streetscape recognising the existing (and three storey anticipated) height of building massing north.	height of building massing north.
Costs	<ul style="list-style-type: none"> • Viability of redevelopment may be impacted by reduced 12m height limitations, although this is likely to be modest along Roberts Street given outlooks. • Potential for overlooking from 18m built form – although effects of this nature would be anticipated in a town centre environment. • Increase in shading from Operative Plan three (3) storey buildings (10m as a proxy) to 12m on Roberts Street public realm is 8%³¹. 	<ul style="list-style-type: none"> • Increase in shading from Operative Plan three (3) storey buildings (10m as a proxy) to 15m on Roberts Street public realm is 17%³². This level of change would not be acceptable given the nature of the public realm in this location and the likelihood of outdoor dining in this location, however considered acceptable for Te Heuheu Street as this street is less sensitive in terms of sunlight provision³³.
Efficiency: <i>The measure of whether the provisions will be likely to achieve the objectives at the lowest total cost to all members of society, or achieves the highest net benefit to all of society³⁴.</i>	Approach is efficient. Approach provides material economic and urban design benefits as associated with consolidation, redevelopment and investment, but with reduced scale of potential development and massing on Roberts Street to ensure an appropriate level of solar gain on public realm.	Approach is efficient. Approach provides substantial economic and urban design benefits as associated with consolidation, redevelopment and investment, but with an increased scale of potential development and massing on Roberts Street which leads to a higher level of shading on public realm.
Effectiveness <i>The measure of contribution new provisions make towards achieving the objectives of the plan, and how successful they are likely to be in solving the problem they were designed to address³⁵.</i>	Approach achieves and implements Objective 3s.2.1 to reinforce and strengthen the Town Centre and Objective 3s.2.2 to maintain and enhance character and amenity.	Approach achieves and implements Objective 3s.2.1 to reinforce and strengthen the Town Centre. Approach is less effective in achieving Objective 3s.2.2 to maintain and enhance character and amenity in that there is a material increase in shading on the public realm as associated with massing on Roberts Street and adverse associated implications on amenity.

³¹ Attachment B. Compton Moen [10]

³² Attachment B. Compton Moen [10]

³³ Attachment B. Compton Moen [14(b)]

³⁴ Mfe.govt.nz Guide to Section 32 of the Resource Management Amendment Act, pg 18

³⁵ Mfe.govt.nz Guide to Section 32 of the Resource Management Amendment Act, pg 18

76. Based on the s32AA consideration of the alternatives the following heights are recommended, based on accepting the Evidence of Mr Liggett for Kāinga Ora, but reducing the massing height along Roberts Street to 12m (as recommended in the s42A Report) based on the further shading analysis undertaken by Mr Compton-Moen and the evidence of both Mr Compton-Moen and Mr Heath.



Matt Bonis
31 October 2023

Attachment A: RECOMMENDED AMENDMENTS

In the Plan Change as notified **new text to be inserted is underlined, bold and red** and ~~text to be deleted has strike through~~. Text that has been moved, but not amended is green and underlined twice.

Text amended as a consequence of recommendations to submissions or through this response is either **bold and purple** where inserted, or ~~purple with a strike through~~ where deleted.

All text to be amended by PC40 is included in this Section.

The complete Taupō District Plan is on the Council website at www.Taupō.govt.nz

3s TAUPŌ TOWN CENTRE ENVIRONMENT

3s.1 Introduction

....

OBJECTIVE

3s.2.1

The Taupō Town Centre Environment will continue to reinforce and strengthen its role and function as the primary commercial, retail, recreational, cultural and entertainment centre for Taupō District.

POLICIES

- i. To consolidate retail and office activity within the Taupō Town Centre Environment to:
 - a. ensure efficiencies in infrastructure use and transportation;
 - b. support the walkability of the town centre;
 - c. encourage redevelopment of town centre properties;
 - d. support the overall integrity of the Taupō Town Centre Environment boundary, and avoid the cumulative effects stemming from the dispersal of retail and office activity.
- ii. To encourage a range of residential and accommodation activities within the Taupō Town Centre Environment in order to create a vibrant and interesting place while ensuring that reverse sensitivity issues are adequately managed.
- iii. To recognise the important role of the Tongariro Domain and its existing infrastructure and services (including those provided by commercial operators) **in as resources that support the wider town centre environment and contribute to the economic and social wellbeing of the district by:**
 - a. **enabling a diverse range of temporary activities given the nature and frequency of these activities and taking into account the amenity of the surrounding environment;**
and
 - b. providing recreation and commercial opportunities.

....

OBJECTIVE

3s.2.2

.....

EXPLANATION

The Taupō town centre has established over time in compliance ...

Threats to the Town Centre Environment include structures of an inappropriate scale. Building envelopes will ensure that the intensity of activity within these Environments can increase while retaining the existing visual character of the area. Part of the character is the relatively low rise development that prevails, consisting mainly of one or two story buildings. At the time of preparing the TUCISP, general feedback from the community supported the retention of this scale of development. There is a three floor maximum height limit for buildings, except for that area in the Town Centre Environment – Pedestrian Precinct closer to the lakefront³⁶, which provides for a considerable increase in floor space, while maintaining a scale of development consistent with the existing character.

....

While the permitted height limit for buildings within the Town Centre Environment is three storeys, except for that block between Tongariro Street, Te Heuheu Street, Roberts Street and fronting Ruapehu Street where heights of 12m, 15m and 18m are anticipated to reinforce and connect the town centre with the lakefront³⁷, there may be circumstances where a particular development such as a hotel, seeks resource consent to exceed this height. On an appropriate site, this may create the opportunity for a land mark building, without necessarily detracting from the scale and character of the remaining town centre. As part of the consideration of such a development through the resource consent process, assessment of desired urban design outcomes would be expected.

...

4g.1 Performance Standards

PERFORMANCE STANDARDS FOR TAUPŌ TOWN CENTRE PRECINCTS

ADDITIONAL PERFORMANCE STANDARDS FOR THE PEDESTRIAN PRECINCT

4g.1.8 Building Setback

...

4g.1.9 Maximum Building Height

- The maximum height of any building shall be as follows:
- iii. Total Maximum height of three (3) floors above ground level, except where provided by (ii) below:
- iv. The maximum height shall be in accordance with the Taupō Town Centre Environment Height Overlays in the planning maps.

4g.1.10 Urban Design

- i. Any building within the Taupō Town Centre Environment Height Overlays in the planning maps that exceed a total

³⁶ OS104.12, or alternative under d16(2)

³⁷ OS104.12, or alternative under d16(2)

- height of (3) floors above ground level.
- ii. Any application arising from this rule shall not be limited or publicly notified.

- | | | |
|---------|---|--|
| 4g.1.11 | <u>Minimum ground floor stud height</u> | <ul style="list-style-type: none"> i. <u>Any new building within the Taupō Town Centre Environment Height Overlays in the planning maps shall provide a minimum ground floor stud height of 3.5m as measured from the ground floor surface to the bottom of the floor slab above.</u> ii. <u>Any application arising from this rule shall not be limited or publicly notified.</u> |
|---------|---|--|

4g.1.12 0 <i>[Renumber accordingly]</i>	Shop Frontage	...
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- | | | |
|---|----------|--|
| 4g.1.13 1
<i>[Renumber accordingly]</i> | Verandas | <p>All buildings must provide a veranda that extends the full length of the site frontage along any road <u>(except frontage to service lanes as shown on the planning maps)</u> or identified laneway; and</p> <ul style="list-style-type: none"> i. Is no less than 3m in width or to the centreline of identified laneways, and ii. Is equipped with under veranda lighting sufficient to produce a minimum of 14 lux at any point along the footpath for the full length of the veranda, and iii. Is maintained in working order. |
|---|----------|--|

4g.1.15 3 <i>[Renumber accordingly]</i>	Building Setbacks	...
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....

- | | | |
|---|----------|--|
| 4g.1.17 5
<i>[Renumber accordingly]</i> | Verandas | <p>All buildings must provide a veranda that extends the full length of the site frontage along any road <u>(except frontage to service lanes as shown on the planning maps)</u>; and</p> <ul style="list-style-type: none"> i. Is no less than 3m in width or to the centreline of identified laneways, and ii. Is equipped with under veranda lighting sufficient to produce a minimum of 14 lux at any point along the footpath for the full length of the veranda, and iii. Is maintained in working order. |
|---|----------|--|

....

4g.2 Land Use Rules

...

4g.2.2³⁸

Any temporary activity, being an activity of up to a total of ~~three~~ ~~four~~ ~~eight~~ operational days in any ~~one calendar year~~ ~~one calendar year~~ ~~six-month period~~, which exceeds any performance standard(s), is a permitted activity, provided that:

- i. There are no new permanent structures constructed; and
- ii. Once the activity has ceased, the site (including vegetation and the surface of the ground of the site) is retained or re-instated to its condition prior to the activity commencing; and
- iii. An allowance of ~~five~~ ~~14~~ ~~28~~ non-operational days ~~in any one calendar year~~ ~~six-month period~~ associated with the activity is not exceeded, ~~during which time any breach of any performance standard(s) shall only be to the extent reasonably necessary to undertake any relevant aspect of the activity.~~
- iv. For the purposes of this Rule, Temporary Activities means activities (and ancillary buildings and structures) that are intended to have a limited duration and incidence (one-off, infrequent, transitional or with a defined end date, as opposed to regular and ongoing), and are not a part of a permanent activity that occurs on a site.
- v. The noise level arising from any Temporary Activity (excluding non-operational days) measured within the boundary of any property in the Residential Environment, shall not exceed the frequency of occurrence or noise limits shown in Table 4g.2.2.
- vi. Noise shall be measured in accordance with NZS6801:2008 assessed in accordance with NZS6802:2008. The provisions in NZS6802:2008 sections 6.3 and 6.4 shall not apply when assessing sound from Temporary Activities against the noise limits in Table 4g.2.2.

Table 4g.2.2: Temporary Activities - Noise, Duration and Frequency criteria

<u>Maximum number of events</u>	<u>Time Limit</u>	<u>Noise Limits</u>		<u>Notes</u>
<u>1</u>	<u>Seven hours between 10am and 10:30pm</u>	<u>80dB L_{Aeq}(5 minutes); and</u> <u>95dB L_{Aeq}(5minutes) at</u> <u>63Hz; and</u> <u>85dB L_{Aeq}(5 minutes) at</u> <u>125Hz</u>	<u>85dB L_{AFmax}</u>	<u>Excludes fireworks.</u> <u>Excludes sound system testing providing it occurs for no more than 2 hours and between the hours of 10am and 6pm</u>
<u>3</u>	<u>4.5 hours between 10am and 10:30pm</u>	<u>80dB L_{Aeq}(5 minutes); and</u> <u>95dB L_{Aeq}(5minutes) at</u> <u>63Hz; and</u> <u>85dB L_{Aeq}(5 minutes) at</u> <u>125Hz</u>	<u>85dB L_{AFmax}</u>	
<u>1 – New Years Eve</u>	<u>Seven hours between 10am and 12:30am</u>	<u>65dB L_{Aeq}</u>	<u>85dB L_{AFmax}</u>	
<u>Remainder</u>		<u>60dB L_{Aeq}</u>	<u>85dB L_{AFmax}</u>	

³⁸ Palmer OS38.3 and Cheal OS79.5.

....

4g.4.13

Urban Design

a. The extent to which the proposed building will:

- i. promote active engagement with, and contribute to the vibrancy and attractiveness of, any adjacent streets, lanes, public spaces including Tongariro Domain, and the foreshore with Lake Taupō and Lake Terrace;
- ii. take account of nearby buildings in respect of the exterior design, architectural form, scale and detailing of the building.

4g.4.14

Minimum ground floor stud height

- c. The extent to which the building design at ground floor remains capable of being able to cater for a range of alternative activities in a Town Centre context.
- d. Whether there are particular aspects of the proposed activity that require a difference ground floor stud height having regard to the functional needs of that activity.

Planning Maps [Insert Taupō Town Centre Environment Height Overlay into the Planning Maps:]



Attachment B: RESPONSE URBAN DESIGN

BEFORE THE HEARINGS PANEL

In the Matter of: The Resource Management Act 1991

And Proposed Plan Change 40:
Taupō Town Centre Environment

Application By: Taupō District Council

**Response to Panel Questions and Reply to Submitters on Proposed Height Changes
in the Town Centre**

Taupō Town Centre Environment

Dave Compton-Moen

Dated: 31 October 2023



Taupō District Plan
CHANGES - BUNDLE ONE

Response of Dave Compton-Moen relating to Panel Questions: Plan Change 40 Taupō Town Centre

INTRODUCTION

1. My full name is David John Compton-Moen.
2. I am a Director at DCM Urban Design Limited, a Landscape and Urban Design consultancy based in Christchurch and established in 2016. I provided Urban Design Evidence to the Hearing as dated 3 July 2023, and also attended the Hearing by audiovisual.
3. At the request of the Hearings Panel, additional information is provided on:
 - a. the methodology for determining the loss of Sunlight hours due to the additional building height and in conjunction with the evidence tabled by representatives for Kainga Ora at the Hearing in relation to. Additional information is provided to show the extend of shading caused by increasing the heights as set out in the evidence provided by Kainga Ora at the Hearing to 15m along Roberts Street and also the southern block of Te Heuheu Street (I understand that the 18m height limit on both blocks of Tūwharetoa Street is agreed between myself and Mr Liggett for Kainga Ora); and
 - b. The need for regulation with regard to minimum floor heights at grade, and subsequent necessity for regulation for upper level loft heights.
4. Attached (Attachment A – Revision D) to this evidence are six pages showing a combination of the Loss of Sunlight and the Increase of Shading as related to alternate heights being 10m (as a proxy for the operative 3 storey height limit), 12m and 15m for Roberts Street and Te Heuheu Street and 18m for Tūwharetoa Street.
5. The number of hours listed in the Revision B drawings have since been found to be incorrect due to a ‘formula’ error. However, the percentage change caused by the additional height is still the same as the error was in ALL scenarios – that is the proportion (as a percentage) of sunlight lost remains constant and correct.

MODELLING - SUN HOURS – LOSS OF SUNLIGHT HOURS

6. The purpose of the model and scenario assessment is to illustrate the proportional difference in shading as cast between buildings responding to a 10m, 12m / 15m and 18m height limit in terms of shading on public open spaces. The methodology is used to compare different scenarios in terms of the total number of sunlight hours a piece of land would receive if changes were made to building heights or building location. I

have used this method for testing bulk location rules in Jacks Point Queenstown, for possible changes to medium density housing standards in Hutt City, and for evidence in Christchurch where a building had been incorrectly designed and built. When combined with shade diagrams, the two methods are useful for determining the magnitude of change from a proposed rule change or a development proposal.

7. The coloured grids shown on these drawings represent a 20x20m area, used use to show a representative change resulting from changes to the permitted maximum height limit.
8. The effects on the total number of sun hours received were then assessed for each scenario using a Sketchup plug-in called 'Sun Hours'. The plug-in uses the geo-referenced model and shadow tool in SketchUp to calculate the number of sunshine hours each 0.25m² grid square (0.5m x 0.5m) of a section of public realm would receive. The colours generated show the areas where less than 3hours of direct sunlight (coloured blue and some yellow). The plug-in also exports an excel spreadsheet which lists the number of sunlight hours each grid intersection receives which makes it possible to determine the amount of sunlight received. Using this information it was then possible to quantify the total change resulting from the rule change in specific locations within the Town Centre.

SHADING METHODOLOGY

9. Using a geo-referenced sketch up model of Taupo Town centre, a series of different height profiles (12m, 15m, 18m) were tested to measure the increase of shading caused by an increase in building heights against a baseline of 10m. The models were tested at:
 - a. 21 June Winter Solstice – 9am, 10am, 12pm, 2pm, 4pm, 6pm
 - b. 21 March/September Equinoxes – 9am, 10am, 12pm, 2pm, 4pm, 6pm
 - c. 21 December Summer Solstice – 9am, 10am, 12pm, 2pm, 4pm, 6pm

ANALYSIS - SUNLIGHT HOURS

10. The following tables are a summary of the shadow lengths resulting from different building height scenarios:

BUILDING HEIGHT	NUMBER OF ANNUAL SUNLIGHT HOURS			
	10m	12m	15m	18m
ROBERTS ST	2524.3	2322.8 (8% LOSS)	2118.94 (17% LOSS)	

RUAPEHU ST ¹	2896.6	2596.3 (11% LOSS)		
TŪWHARETOA	2524.3	-	2118.94 (17% LOSS)	1971.3 (22% LOSS)

11. After reviewing the sun-hour calculations prepared in the attached drawings and the potential loss of sun, I consider the following approach should be taken:
- Buildings on the northern side of Roberts St – Extending the height of this block to 15m would result in a 17% change or loss of sunlight hours.
 - Buildings on the southern side of Tūwharetoa St – increasing the height of these buildings to 18m will not have any discernible effects on the functionality or use of the street reserve.
 - Buildings on the northern side of Tūwharetoa – increasing these building to 18m would result in a 22% loss in sunlight hours. A 15m high block would result in a 17% loss when compared to the 10m high current scenario.
 - For buildings on the southern side of Te Heuheu Street – increasing the height here to 12m or 15m will have no discernible change.
 - For buildings on the eastern side of Ruapehu Street – increasing the building heights to 15m would have no discernible effects given the alignment of the street.

ANALYSIS - SHADING

12. The following tables are a summary of the shadow lengths resulting from different building height scenarios:

WINTER SOLSTICE – 21 JUNE

BUILDING HEIGHT	SHADOW LENGTH			
	10m	12m	15m	18m
9am	40.3	48	59	71
10am	26.7	31.8	39	47
12pm	18.7	22.4	27.8	33.5
2pm	16.9	20.4	25.2	30.5
4pm	23.9	28.4	35.9	42
6pm	-	-	-	-

¹ A mix of 12m and 18m buildings were assessed for Ruapehu Street

AUTUMN-SPRING EQUINOX – 21 JUNE

BUILDING HEIGHT	SHADOW LENGTH			
	10m	12m	15m	18m
9am	13	15	18.7	22.5
10am	10.5	12.7	15.8	19.2
12pm	8.1	9.7	12	14.5
2pm	7.9	9.6	12	14.4
4pm	19.5	23.5	29.4	35
6pm	132	127	196	236

SUMMER SOLSTICE – 21 JUNE

BUILDING HEIGHT	SHADOW LENGTH			
	10m	12m	15m	18m
9am	4	5	7	10
10am	3	4.5	6	7
12pm	2.6	3.2	4.5	5
2pm	5	6	7.6	9
4pm	11.4	13.6	17	20.5
6pm	27	32.6	40.5	48.7

14. Having reviewed the shade diagrams for the different height scenarios, I can make the following comments:

- a. The increase from 10m to 12m for potential buildings on Roberts Street has only a Very Low magnitude of change during winter months. At the equinox the height change is less pronounced with the shade length increasing by approximately 1.6m, from 8.1m to 9.7m at 12pm. In summer the change in height is considered Indiscernible. I consider this level of change for Roberts Street to be Acceptable.
- b. The increase from 10m to 15m has a Low Magnitude of change during the winter months with the shade lengths increasing by approximately 9.1m at 12pm, from 18.7 to 27.8. At the equinox, the change is less pronounced with the shade length increasing by approximately 3.9m, from 8.1 to 12m at 12pm. In summer the change in height is considered Indiscernible, especially if buildings have a verandah extending out into the road reserve. For Roberts Street, I do not consider this level of change acceptable given the nature of the public realm in this location and the likelihood of outdoor dining in this location, however I do consider it acceptable for Te Heuheu Street as this street is less sensitive in terms of sunlight provision.
- c. The increase from 10m to 18m for buildings on the northern side of Tūwharetoa Street has a Low-Moderate Magnitude of change during the winter months with the shade lengths increasing by approximately 14.8m, from 18.7m to 33.5 at midday. At the equinox, the change is less pronounced

with the shade length increasing by approximately 6.4m, from 8.1m to 14.5m at 12pm. In summer the change in height is considered discernible but the change is considered Low. Buildings located on the southern side of Tūwharetoa Street will not have an effect on the public realm to any discernible level. The proposed change to 18m for both sides of Tūwharetoa Street is considered acceptable given the nature of this street..

BUILDING HEIGHT LEVEL RESTRICTIONS

15. I understand that the Panel has also queried the need for additional regulation with regard to minimum requirements associated with floor levels. The purpose of requiring increased floor level heights, particularly at grade is to ensure flexibility for a wider range of uses (retail, hospitality, commercial services, hotels) and hence future opportunities to use the space.
16. At a discussion between myself, Mr Heath (Economics) and Mr Bonis (Planning) on 27 October 2023 for Taupō District Council relating to this matter, consideration was framed as:
- a. Can a minimum at grade floor height be justified in terms of regulation (between feasibility and assisting redevelopment vs flexibility and design); and
 - b. If so within a range of 3.5m to 4.0m what would be the appropriate height requirement and lastly
 - c. Is there a subsequent requirement to specify regulation associated with minimum loft level heights for levels above grade.
17. In terms of (a) I understand and support the inclusion of a minimum 3.5m floor to ceiling height on the ground floor as it is common practice in most urban centres throughout New Zealand and does allow flexibility for future uses. From an urban design perspective it also provides buildings with a stronger built edge to the street, especially if only single storey, as well as allowing natural light further into a building. Having a higher ground floor stud height in urban design can result in the following benefits:
- a. A taller ground floor ceiling height can allow for larger windows and glass facades. This, in turn, increases the amount of natural light that can enter a building or tenancy, creating a more pleasant and well-lit interior space. Improved natural lighting can reduce the need for artificial lighting, leading to energy savings.

- b. Higher ceilings can improve air circulation and ventilation within the building. Proper ventilation can help maintain indoor air quality and create a healthier living or working environment.
- c. A higher ceiling height can create a sense of spaciousness within interior spaces. This can make the building more appealing to tenants and make narrow spaces feel larger.
- d. Taller ceilings offer greater flexibility for interior design and future uses. They allow for the incorporation of ventilation systems for restaurants or mezzanines or loft spaces, which can be used for various purposes such as offices, additional storage, or sleeping quarters. This adaptability is particularly valuable in mixed-use developments and urban living environments.
- e. Higher ceilings provide an opportunity to showcase architectural features, such as exposed structural elements or ceiling details. These features can add character and uniqueness to the building, contributing to its overall aesthetic appeal.
- f. Higher ceilings can contribute to better acoustics within interior spaces. Sound can disperse more effectively, reducing echoes and noise.
- g. For retail and commercial spaces at the ground floor level, higher ceilings can provide a more visually appealing environment for customers. It allows for creative store designs and displays.

18. In terms of (b), I consider that for a more provincial town centre such as Taupō, a minimum 3.5m floor to ceiling (base of first floor slab) height is appropriate and in my experience does not have an effect on the feasibility of whether a new building is developed or not. It is commonly used in many New Zealand urban centres including Christchurch City. Many new tilt-slab buildings have been constructed in the central city which have a stud height of 5-6m which creates a strong built edge to the streetscape, is cheaper than building a two storey building but does not prevent mezzanine or storage levels being created by future tenants.

19. Lastly, in terms of (c) I do not support regulation requiring upper loft level minimum heights, as I do not consider this an issue. There are sufficient controls in place to ensure that a building design will be appropriately portioned. For upper levels the building code specifies minimum ceiling heights which is sufficient for either office or residential uses. There is not the same need as the ground floor for future flexibility as retail or hospitality are less likely to establish above the ground floor.

CONCLUSION

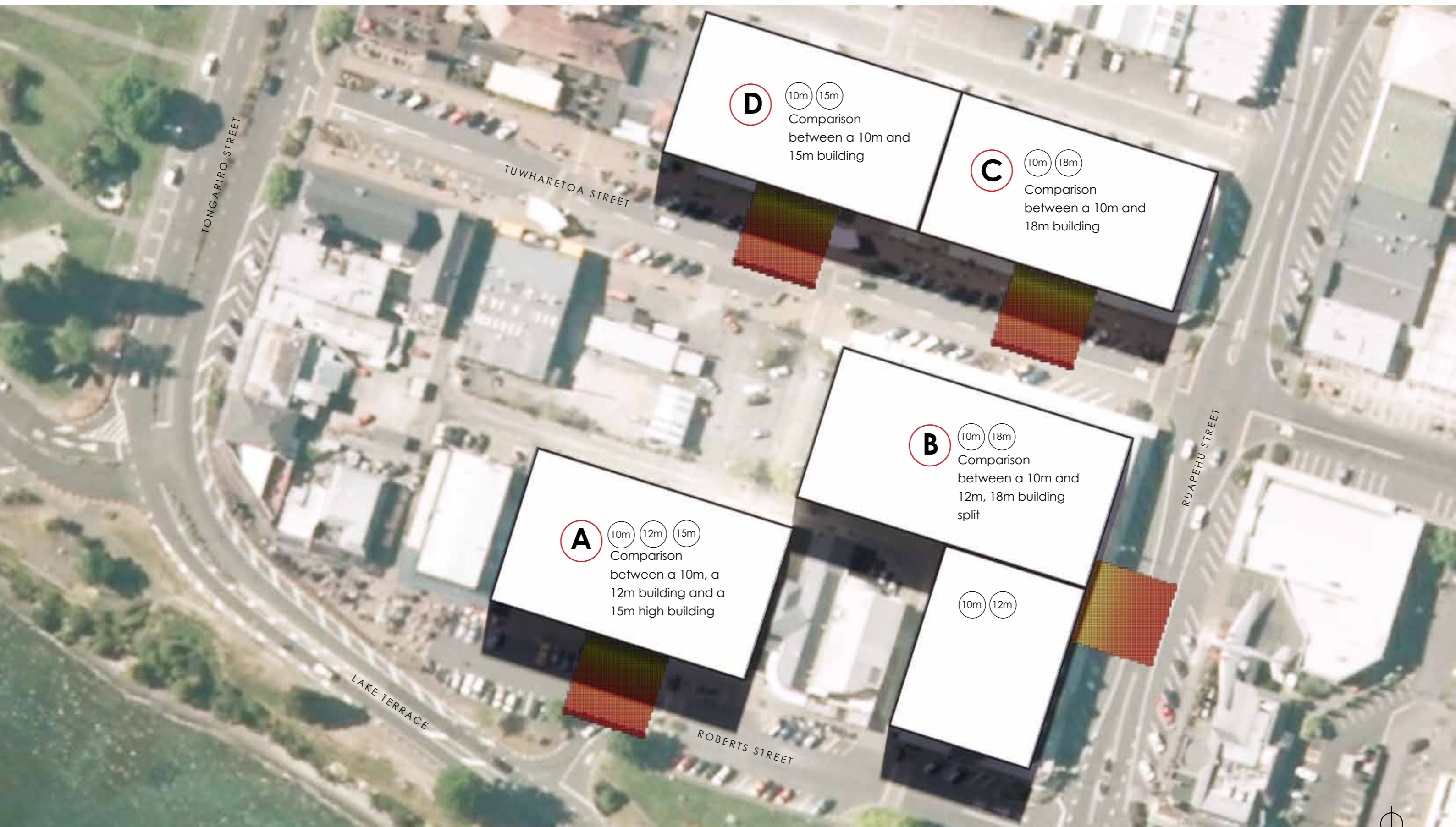
20. Overall, the loss of sunlight and increased shading is considered appropriate for a town centre environment, dependant on the quality and use of the receiving public realm, with the following changes recommended from an urban design perspective:

- ~ Roberts Street -12m
- ~ Tūwharetoa Street (both sides) – 18m
- ~ Te Heuheu Street (southern side)– 15m
- ~ Ruahepu Street (east side) – 15m

21. For the ground floor height, a 3.5m minimum floor to ceiling (base of first floor slab) height is recommended for future flexibility and the creation of better internal building environments. A minimum loft height is not recommended however.

Dave Compton-Moen

31 October 2023



A. LOCATION PLAN (SCALE 1:800@A3)

CLIENT/Project name: TAUPO DISTRICT COUNCIL / SUNSHINE ANALYSIS
 Drawing name: **LOCATION PLAN**
 Designed by: DAVE COMPTON-MOEN
 Drawn by: DAVE COMPTON-MOEN / ZOE HUGHES
 Original issue date: 28 JULY 2022
 Scales:

Revision no:	Amendment:
A	Draft Issue for comment
B	Final
C	Post Hearing
D	Post internal meeting

Approved	Date
DCM	28.06.2022
DCM	28.07.2022
DCM	25.10.2023
DCM	31.10.2023



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Project no / drawing no: 2022_135 / 001

Revision:D

A LOCATION A - ROBERTS STREET

A. 'SUN-HOURS' METHODOLOGY

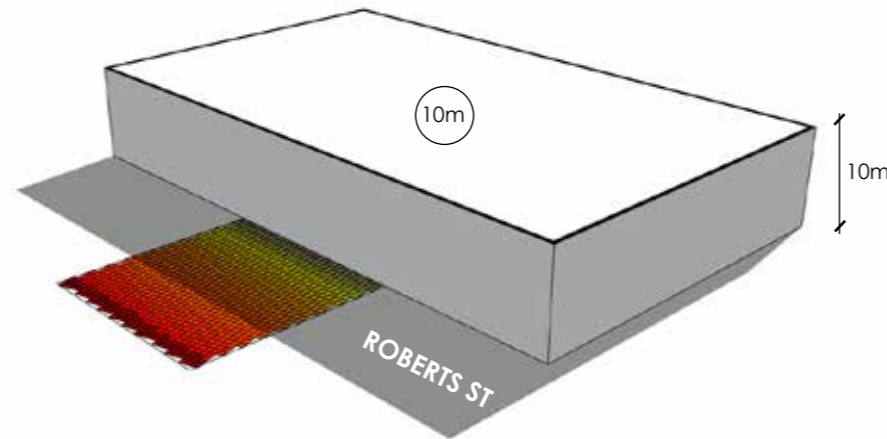
The coloured grids shown on these drawings represent a 20x20m area, to show a representative change resulting from changes to the permitted maximum height limit which at 3 storeys is assumed to be 10m.

The effects on the total number of sun hours received were then assessed for each scenario using a Sketchup plug-in called 'Sun Hours'. The plug-in uses the geo-referenced model and shadow tool in SketchUp to calculate the number of sunshine hours each 0.25m² grid square (0.5m x 0.5m) of the public realm would receive. The colours generated show the areas where less than 3 hours of direct sunlight (coloured blue and some yellow). The plug-in also exports an excel spreadsheet which lists the number of sunlight hours each grid intersection receives which makes it possible to determine the amount of sunlight received.

Using this information it was then possible to quantify the total change resulting from the rule change.

NOTE:
Buildings are indicative only and do not take into account site coverage or other restrictions such as service areas or on-site carparking.

B. CURRENT HEIGHT SCENARIO (ASSUMED 10M HIGH)



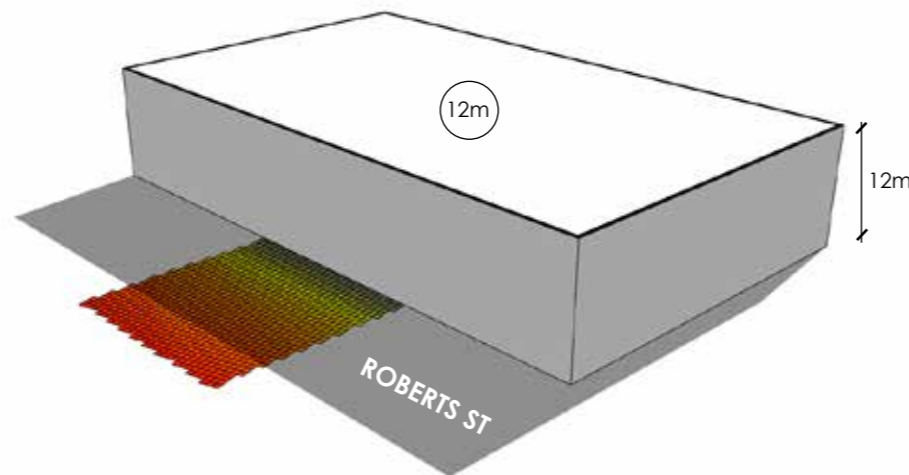
The theoretical average number of sunshine hours received on a 20x20m area of Roberts Street, with a 10m maximum height limit is **2524.3 hours**. Note that this does not take into account weather conditions or wider typographical features and is simply based on a simple 'bulk and location' model.

1. INDICATIVE 3D MODEL



2. SHADING ANALYSIS PLAN 1:750 @ A3

C. PROPOSED HEIGHT SCENARIO (ASSUMED 12M HIGH)



With an increase in the maximum height limit to 12m, the average number of sunshine hours received on the grid would reduce to **2322.8 hours**. This is an **8%** decrease on the number of hours of sunlight received.

3. INDICATIVE 3D MODEL



4. SHADING ANALYSIS PLAN 1:750 @ A3

CLIENT/Project name: TAUPO DISTRICT COUNCIL / SUNSHINE ANALYSIS
 Drawing name: **SUNSHINE ANALYSIS A - ROBERTS ST (12M)**
 Designed by: DAVE COMPTON-MOEN
 Drawn by: DAVE COMPTON-MOEN / ZOE HUGHES
 Original issue date: 28 JULY 2022
 Scales:

Revision no:	Amendment:
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DCM	31.10.2023



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A LOCATION A - ROBERTS STREET

A. 'SUN-HOURS' METHODOLOGY

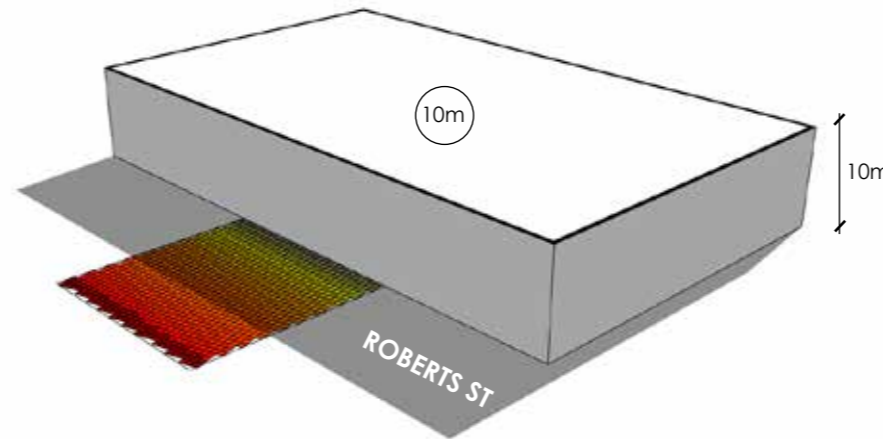
The coloured grids shown on these drawings represent a 20x20m area, to show a representative change resulting from changes to the permitted maximum height limit which at 3 storeys is assumed to be 10m.

The effects on the total number of sun hours received were then assessed for each scenario using a Sketchup plug-in called 'Sun Hours'. The plug-in uses the geo-referenced model and shadow tool in SketchUp to calculate the number of sunshine hours each 0.25m² grid square (0.5m x 0.5m) of the public realm would receive. The colours generated show the areas where less than 3 hours of direct sunlight (coloured blue and some yellow). The plug-in also exports an excel spreadsheet which lists the number of sunlight hours each grid intersection receives which makes it possible to determine the amount of sunlight received.

Using this information it was then possible to quantify the total change resulting from the rule change.

NOTE:
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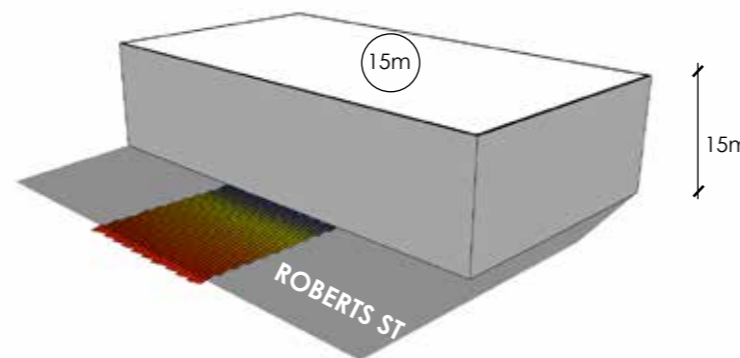
B. CURRENT HEIGHT SCENARIO (ASSUMED 10M HIGH)



The theoretical average number of sunshine hours received on a 20x20m area of Roberts Street, with a 10m maximum height limit is **2524.3 hours**. Note that this does not take into account weather conditions or wider typographical features and is simply based on a simple 'bulk and location' model.

1. INDICATIVE 3D MODEL

C. KAIANGA ORA HEIGHT SCENARIO (ASSUMED 15M HIGH)



With an increase in the maximum height limit to 15m, the average number of sunshine hours received on the grid would reduce to **2118.94 hours**. This is a **17% decrease** on the number of hours of sunlight received.

3. INDICATIVE 3D MODEL



2. SHADING ANALYSIS PLAN 1:750 @ A3



4. SHADING ANALYSIS PLAN 1:750 @ A3

CLIENT/Project name: TAUPO DISTRICT COUNCIL / SUNSHINE ANALYSIS
Drawing name: **SUNSHINE ANALYSIS A - ROBERTS ST (15M)**
Designed by: DAVE COMPTON-MOEN
Drawn by: DAVE COMPTON-MOEN / ZOE HUGHES
Original issue date: 28 JULY 2022
Scales:

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DCM	31.10.2023



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B LOCATION B - RUAPEHU STREET

B. CURRENT HEIGHT SCENARIO

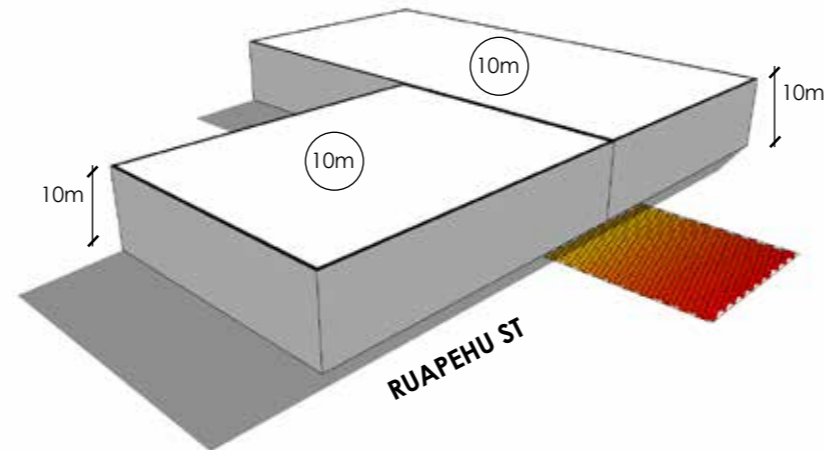
A. 'SUN-HOURS' METHODOLOGY

The coloured grids shown on these drawings represent a 20x20m area, to show a representative change resulting from changes to the permitted maximum height limit which at 3 storeys is assumed to be 10m.

The effects on the total number of sun hours received were then assessed for each scenario using a Sketchup plug-in called 'Sun Hours'. The plug-in uses the geo-referenced model and shadow tool in SketchUp to calculate the number of sunshine hours each 0.25m² grid square (0.5m x 0.5m) of the public realm would receive. The colours generated show the areas where less than 3 hours of direct sunlight (coloured blue and some yellow). The plug-in also exports an excel spreadsheet which lists the number of sunlight hours each grid intersection receives which makes it possible to determine the amount of sunlight received.

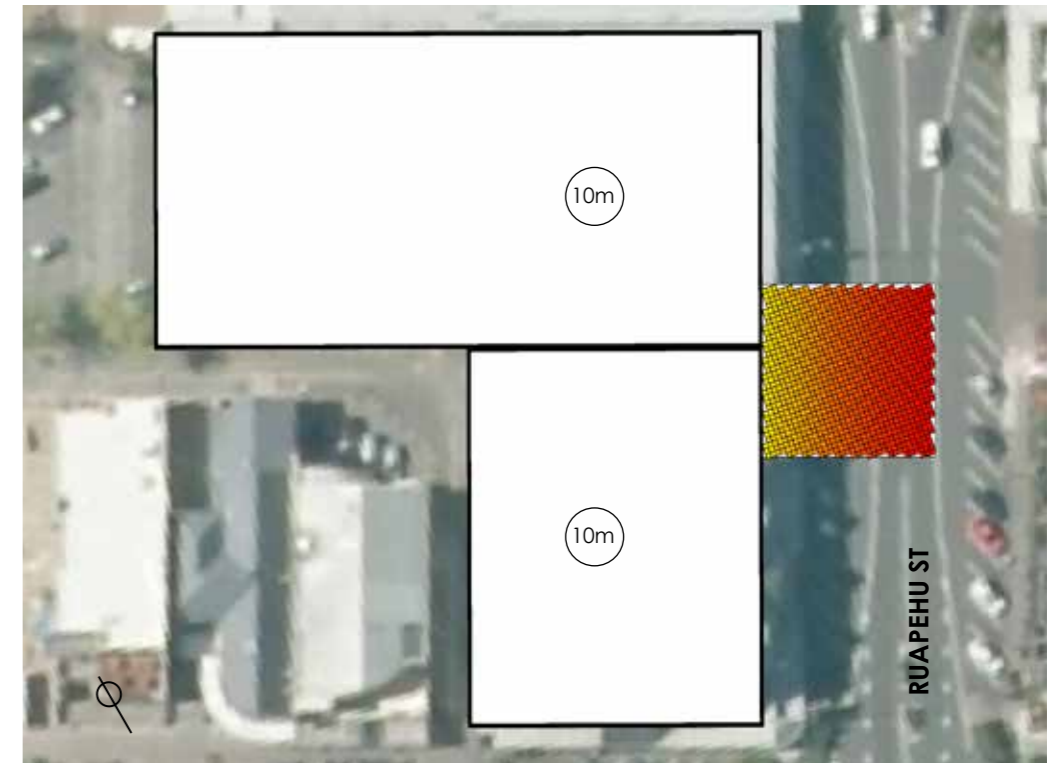
Using this information it was then possible to quantify the total change resulting from the rule change.

NOTE:
Buildings are indicative only and do not take into account site coverage or other restrictions such as service areas or on-site carparking.



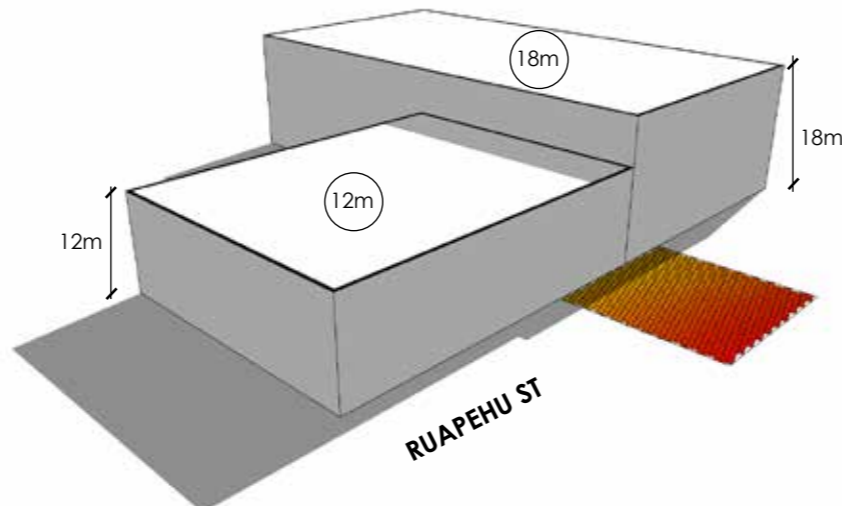
The theoretical average number of sunshine hours received on a 20x20m area of Ruapehu Street, with a 10m maximum height limit is **2896.6 hours**. Note that this does not take into account weather conditions or wider typographical features and is simply based on a simple 'bulk and location' model.

1. INDICATIVE 3D MODEL



2. SHADING ANALYSIS PLAN 1:750 @ A3

C. PROPOSED HEIGHT SCENARIO



With an increase in the maximum height limit to 12m and 18m, the average number of sunshine hours received on the grid would reduce to **2596.3 hours**. This is an **11%** decrease on the number of hours of sunlight received.

3. INDICATIVE 3D MODEL



4. SHADING ANALYSIS PLAN 1:750 @ A3

CLIENT/Project name: TAUPO DISTRICT COUNCIL / SUNSHINE ANALYSIS
Drawing name: **SUNSHINE ANALYSIS LOCATION B - RUAPEHU ST**
Designed by: DAVE COMPTON-MOEN
Drawn by: DAVE COMPTON-MOEN / ZOE HUGHES
Original issue date: 28 JULY 2022
Scales:

Revision no:	Amendment:
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Project no / drawing no: 2022_135 / 004

Revision: D

B. CURRENT HEIGHT SCENARIO

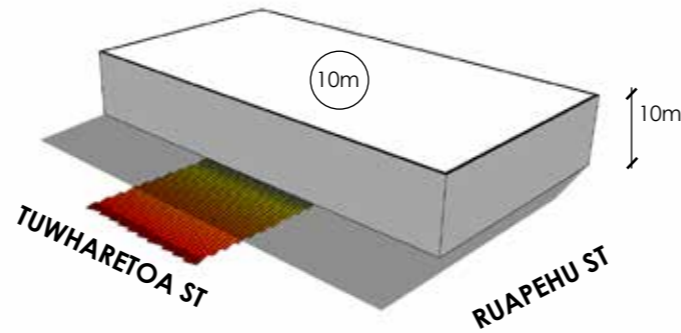
A. 'SUN-HOURS' METHODOLOGY

The coloured grids shown on these drawings represent a 20x20m area, to show a representative change resulting from changes to the permitted maximum height limit which at 3 storeys is assumed to be 10m.

The effects on the total number of sun hours received were then assessed for each scenario using a Sketchup plug-in called 'Sun Hours'. The plug-in uses the geo-referenced model and shadow tool in SketchUp to calculate the number of sunshine hours each 0.25m² grid square (0.5m x 0.5m) of the public realm would receive. The colours generated show the areas where less than 3 hours of direct sunlight (coloured blue and some yellow). The plug-in also exports an excel spreadsheet which lists the number of sunlight hours each grid intersection receives which makes it possible to determine the amount of sunlight received.

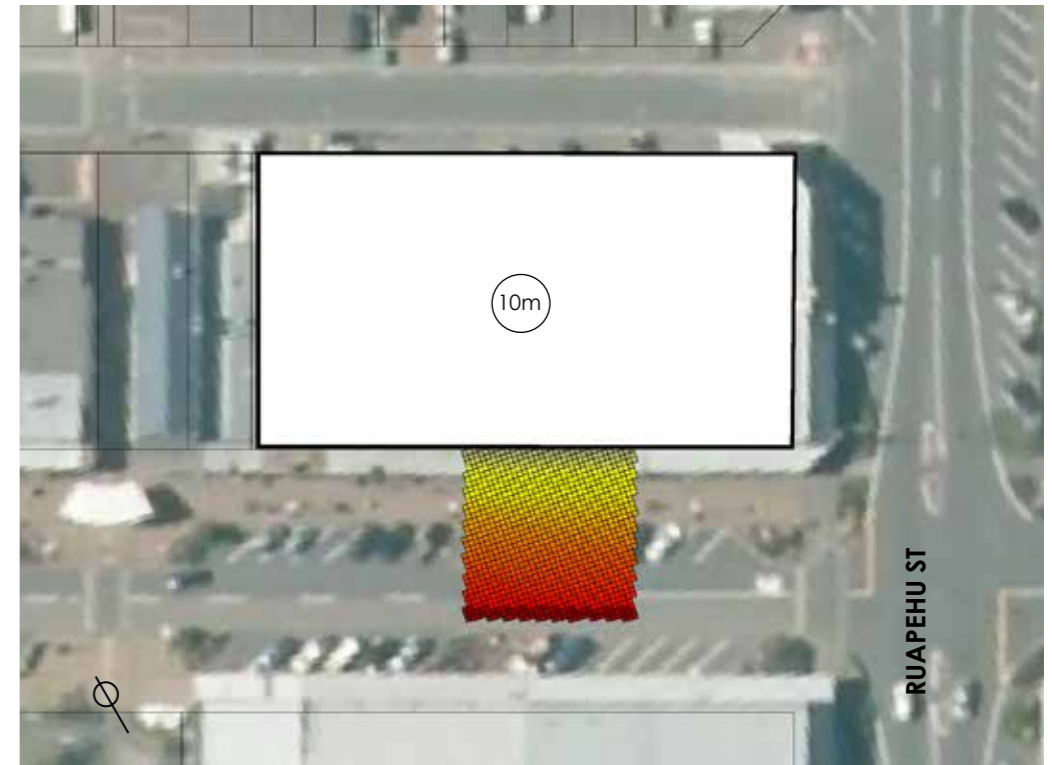
Using this information it was then possible to quantify the total change resulting from the rule change.

NOTE:
Buildings are indicative only and do not take into account site coverage or other restrictions such as service areas or on-site carparking.



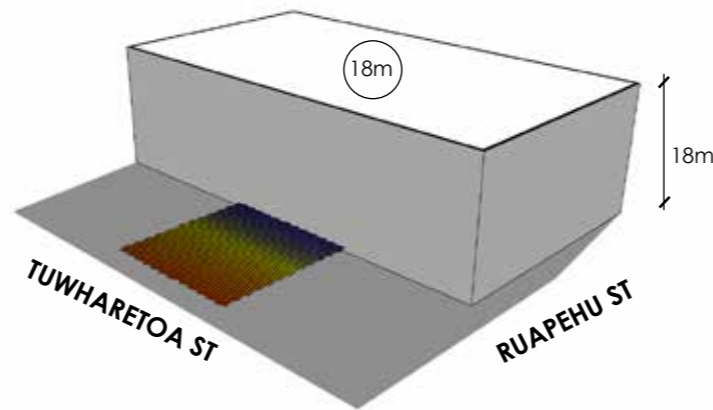
The theoretical average number of sunshine hours received on a 20x20m area of Roberts Street, with a 10m maximum height limit is **2524.3 hours**. Note that this does not take into account weather conditions or wider typographical features and is simply based on a simple 'bulk and location' model.

1. INDICATIVE 3D MODEL



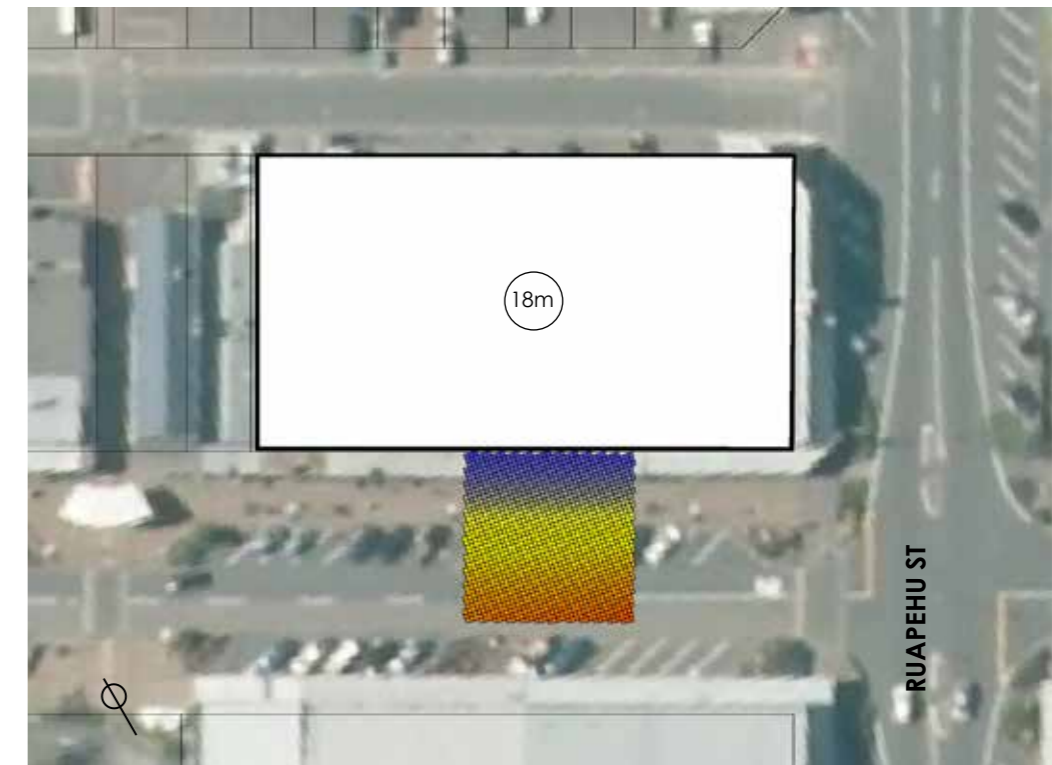
2. SHADING ANALYSIS PLAN 1:750 @ A3

C. PROPOSED HEIGHT SCENARIO



With an increase in the maximum height limit to 18m, the average number of sunshine hours received on the grid would reduce to **1971.3 hours**. This is a **22%** decrease on the number of hours of sunlight received.

3. INDICATIVE 3D MODEL



4. SHADING ANALYSIS PLAN 1:750 @ A3

CLIENT/Project name: TAUPO DISTRICT COUNCIL / SUNSHINE ANALYSIS
 Drawing name: **SUNSHINE ANALYSIS LOCATION B - RUAPEHU ST**
 Designed by: DAVE COMPTON-MOEN
 Drawn by: DAVE COMPTON-MOEN / ZOE HUGHES
 Original issue date: 28 JULY 2022
 Scales:

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B. CURRENT HEIGHT SCENARIO

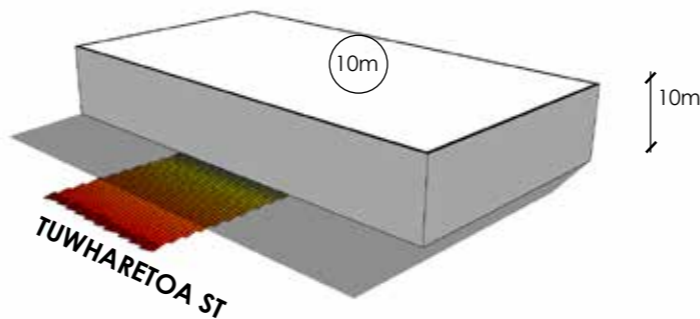
A. 'SUN-HOURS' METHODOLOGY

The coloured grids shown on these drawings represent a 20x20m area, to show a representative change resulting from changes to the permitted maximum height limit which at 3 storeys is assumed to be 10m.

The effects on the total number of sun hours received were then assessed for each scenario using a Sketchup plug-in called 'Sun Hours'. The plug-in uses the geo-referenced model and shadow tool in SketchUp to calculate the number of sunshine hours each 0.25m² grid square (0.5m x 0.5m) of the public realm would receive. The colours generated show the areas where less than 3 hours of direct sunlight (coloured blue and some yellow). The plug-in also exports an excel spreadsheet which lists the number of sunlight hours each grid intersection receives which makes it possible to determine the amount of sunlight received.

Using this information it was then possible to quantify the total change resulting from the rule change.

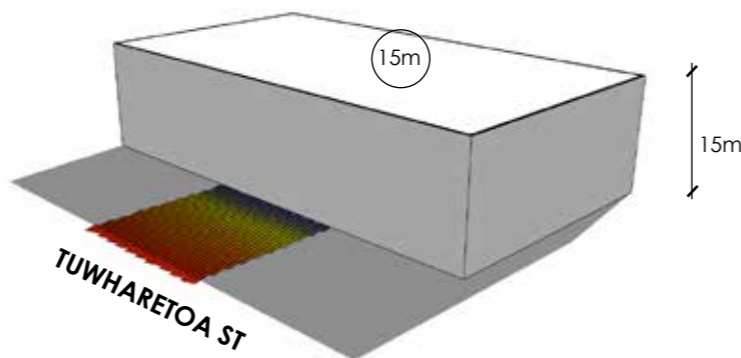
NOTE:
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The theoretical average number of sunshine hours received on a 20x20m area of Roberts Street, with a 10m maximum height limit is **2524.3 hours**. Note that this does not take into account weather conditions or wider typographical features and is simply based on a simple 'bulk and location' model.

1. INDICATIVE 3D MODEL

C. PROPOSED HEIGHT SCENARIO



With an increase in the maximum height limit to 15m, the average number of sunshine hours received on the grid would reduce to **2118.94 hours**. This is a **17% decrease** on the number of hours of sunlight received.

3. INDICATIVE 3D MODEL



2. SHADING ANALYSIS PLAN 1:750 @ A3



4. SHADING ANALYSIS PLAN 1:750 @ A3

CLIENT/Project name: TAUPO DISTRICT COUNCIL / SUNSHINE ANALYSIS
 Drawing name: **SUNSHINE ANALYSIS LOCATION B - RUAPEHU ST**
 Designed by: DAVE COMPTON-MOEN
 Drawn by: DAVE COMPTON-MOEN / ZOE HUGHES
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REGISTERED LANDSCAPE ARCHITECT



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A. SUMMER SOLSTICE DECEMBER 21ST



9AM

- 18m: 10m shadow
- 15m: 7m shadow
- 12m: 5m shadow
- 10m: 4m shadow



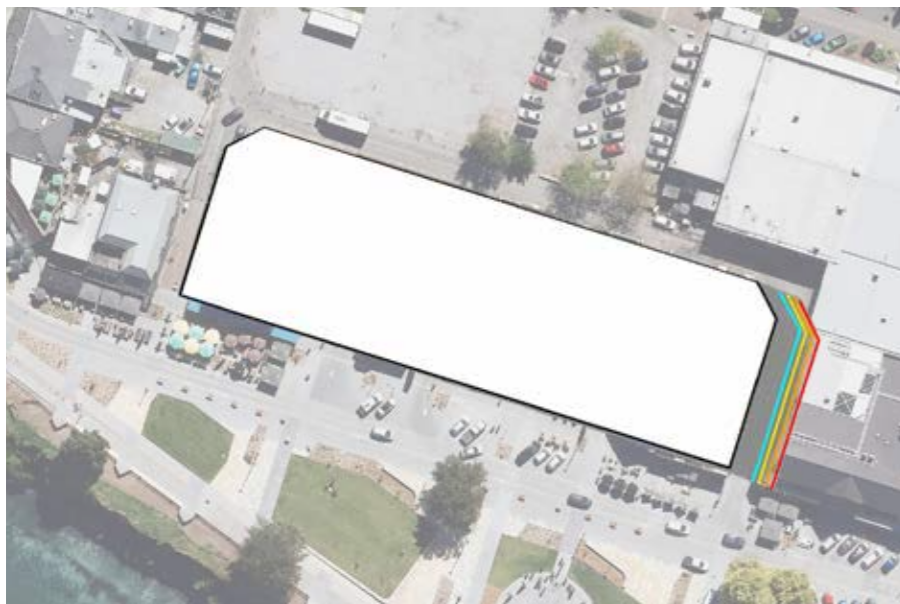
10AM

- 18m: 7m shadow
- 15m: 6m shadow
- 12m: 4.5m shadow
- 10m: 3m shadow



12PM

- 18m: 5m shadow
- 15m: 4.5m shadow
- 12m: 3.2m shadow
- 10m: 2.6m shadow



2PM

- 18m: 9m shadow
- 15m: 7.6m shadow
- 12m: 6m shadow
- 10m: 5m shadow



4PM

- 18m: 20.5m shadow
- 15m: 17m shadow
- 12m: 13.6m shadow
- 10m: 11.4m shadow



6PM

- 18m: 48.7m shadow
- 15m: 40.5m shadow
- 12m: 32.6m shadow
- 10m: 27m shadow

The following images have been prepared by taking screen shots from a rendered SketchUp sun study at the Summer, Autumn, Winter and Spring solstices at various times during the day. Shadow measured at longest point.

CLIENT/Project name: TAUPO DISTRICT COUNCIL / SUNSHINE ANALYSIS
 Drawing name: **SHADE ANALYSIS SUMMER**
 Designed by: DAVE COMPTON-MOEN
 Drawn by: DAVE COMPTON-MOEN / ZOE HUGHES
 Original issue date: 28 JULY 2022
 Scales: 1:1500 @A3

Revision no:
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 B Final
 C Post Hearing
 D Post internal meeting

Approved
 DCM
 DCM
 DCM
 DCM

Date
 28.06.2022
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 25.10.2023
 31.10.2023



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Project no / drawing no: 2022_135 / 007

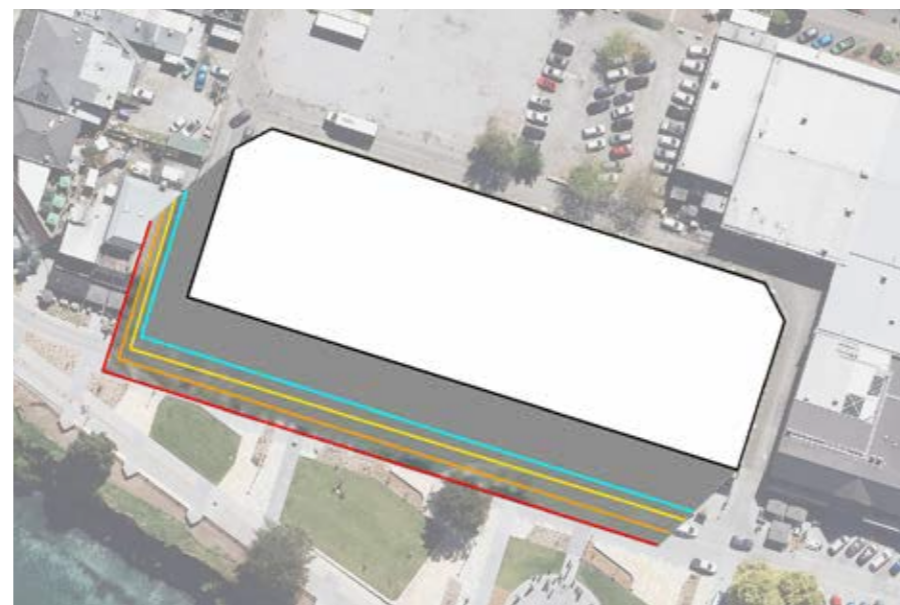
Revision:D

A. SPRING/ AUTUMN SOLSTICE SEPTEMBER/ MARCH 21ST



9AM

- 18m: 22.5m shadow
- 15m: 18.7m shadow
- 12m: 15m shadow
- 10m: 13m shadow



10AM

- 18m: 19.2m shadow
- 15m: 15.8m shadow
- 12m: 12.7m shadow
- 10m: 10.5m shadow



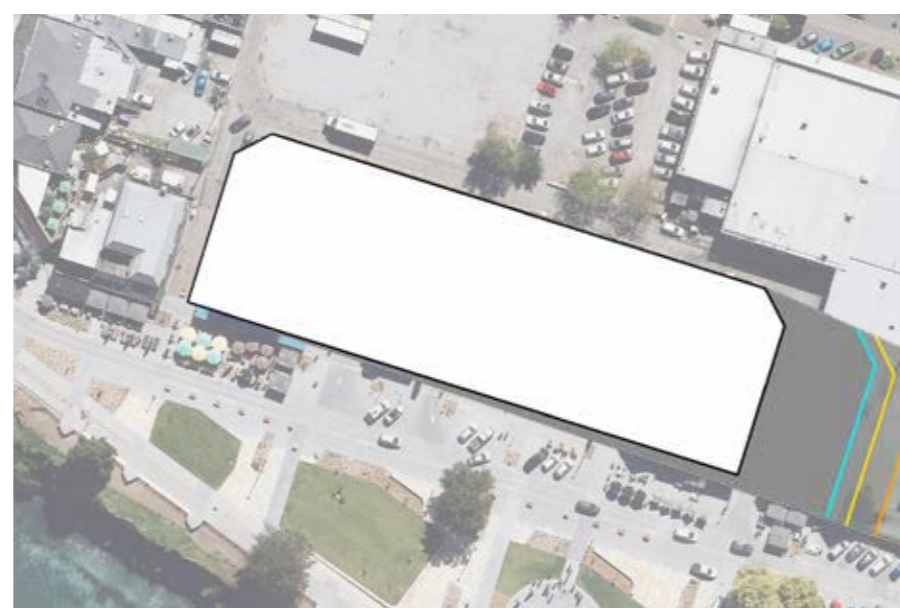
12PM

- 18m: 14.5m shadow
- 15m: 12m shadow
- 12m: 9.7m shadow
- 10m: 8.1m shadow



2PM

- 18m: 14.4m shadow
- 15m: 12m shadow
- 12m: 9.6m shadow
- 10m: 7.9m shadow



4PM

- 18m: 35m shadow
- 15m: 29.4m shadow
- 12m: 23.5m shadow
- 10m: 19.5m shadow



6PM

- 18m: 236m shadow
- 15m: 196m shadow
- 12m: 157m shadow
- 10m: 132m shadow

The following images have been prepared by taking screen shots from a rendered SketchUp sun study at the Summer, Autumn, Winter and Spring solstices at various times during the day. Shadow measured at longest point.

CLIENT/Project name: TAUPO DISTRICT COUNCIL / SUNSHINE ANALYSIS
 Drawing name: **SHADE ANALYSIS SPRING/ AUTUMN**
 Designed by: DAVE COMPTON-MOEN
 Drawn by: DAVE COMPTON-MOEN / ZOE HUGHES
 Original issue date: 28 JULY 2022
 Scales: 1:1500 @A3

Revision no: **Amendment:**
 A Draft Issue for comment
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Approved **Date**
 DCM 28.06.2022
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 DCM 25.10.2023
 DCM 31.10.2023

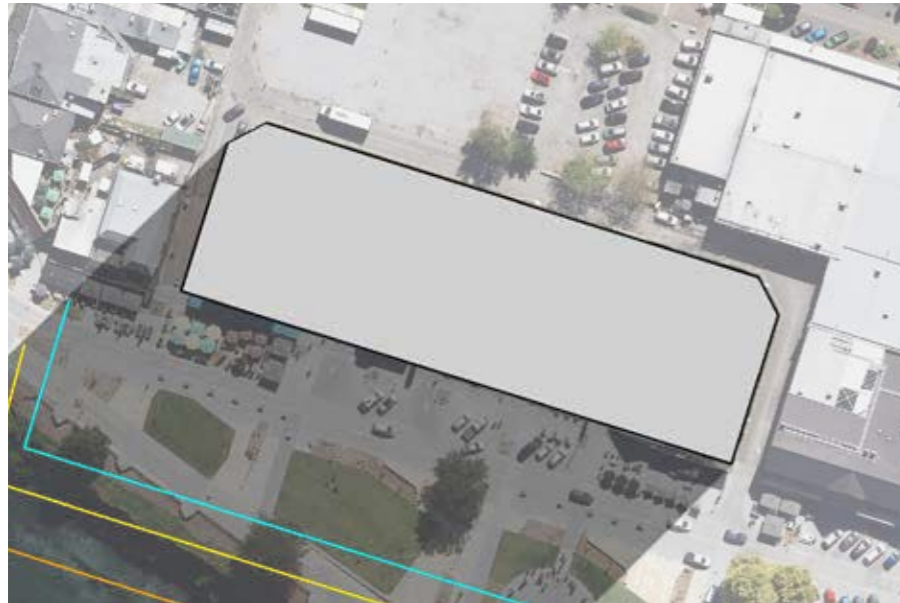
REGISTERED LANDSCAPE ARCHITECT

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 CHRISTCHURCH 8011
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Project no / drawing no: 2022_135 / 008

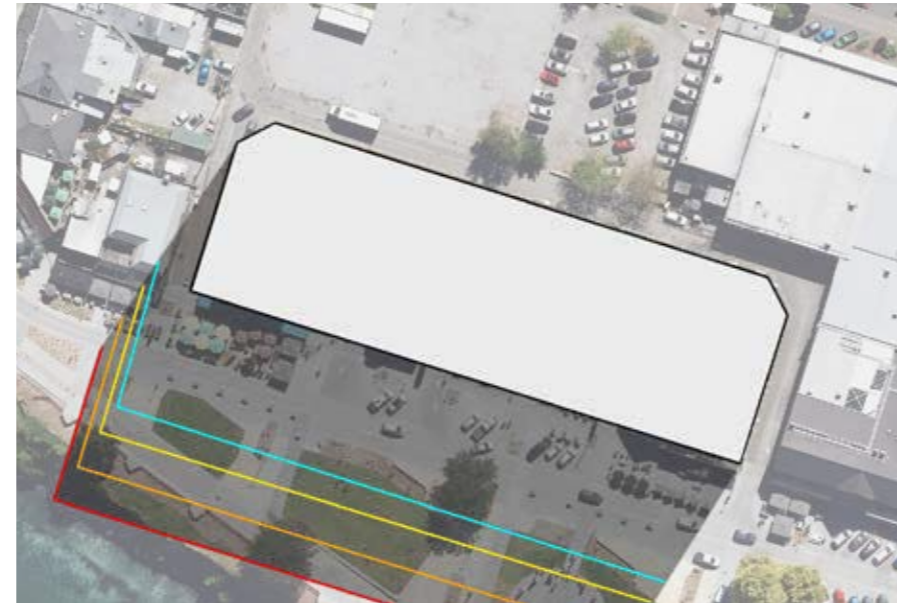
Revision:D

A. WINTER SOLSTICE JUNE 21ST



9AM

- 18m: 71m shadow
- 15m: 59m shadow
- 12m: 48m shadow
- 10m: 40.3m shadow



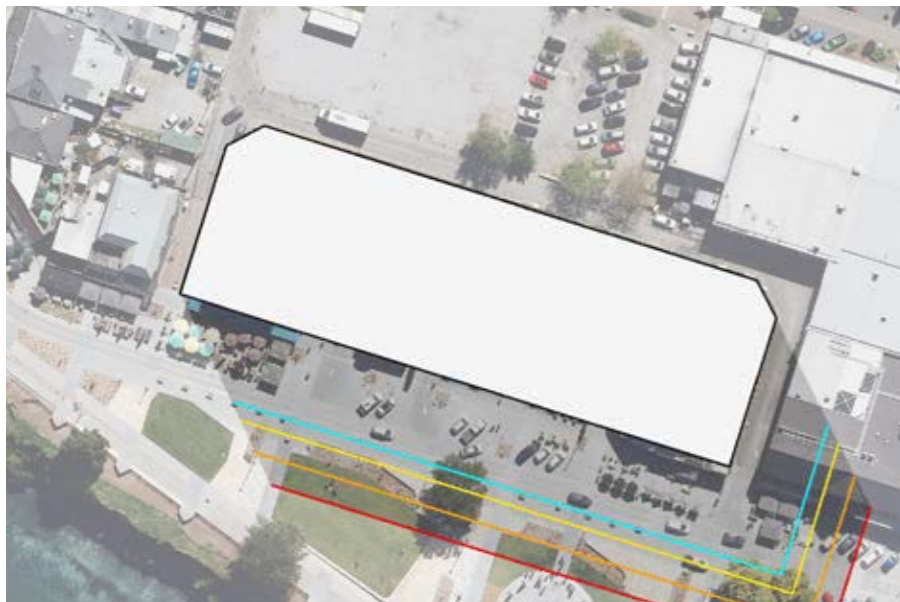
10AM

- 18m: 47m shadow
- 15m: 39m shadow
- 12m: 31.8m shadow
- 10m: 26.7m shadow



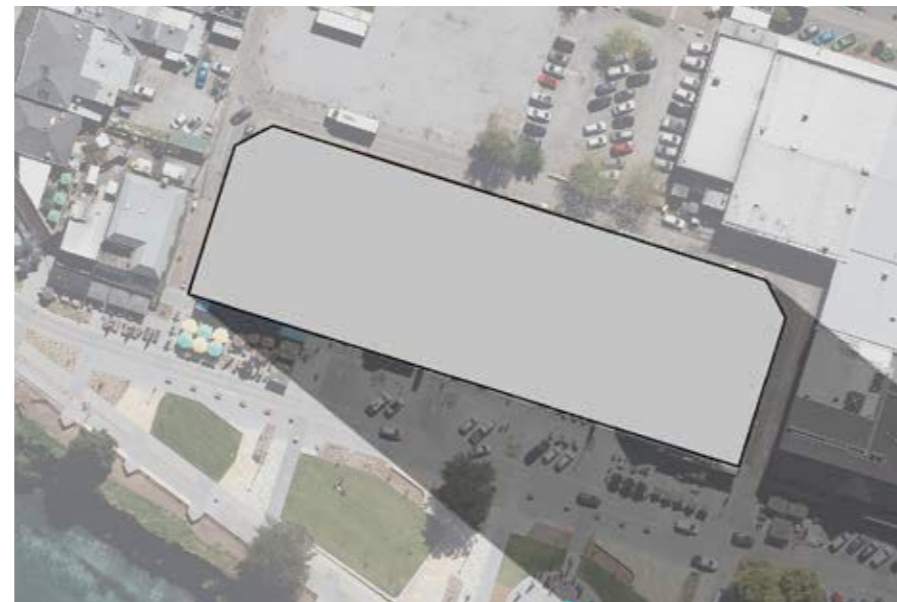
12PM

- 18m: 33.5m shadow
- 15m: 27.8m shadow
- 12m: 22.4m shadow
- 10m: 18.7m shadow



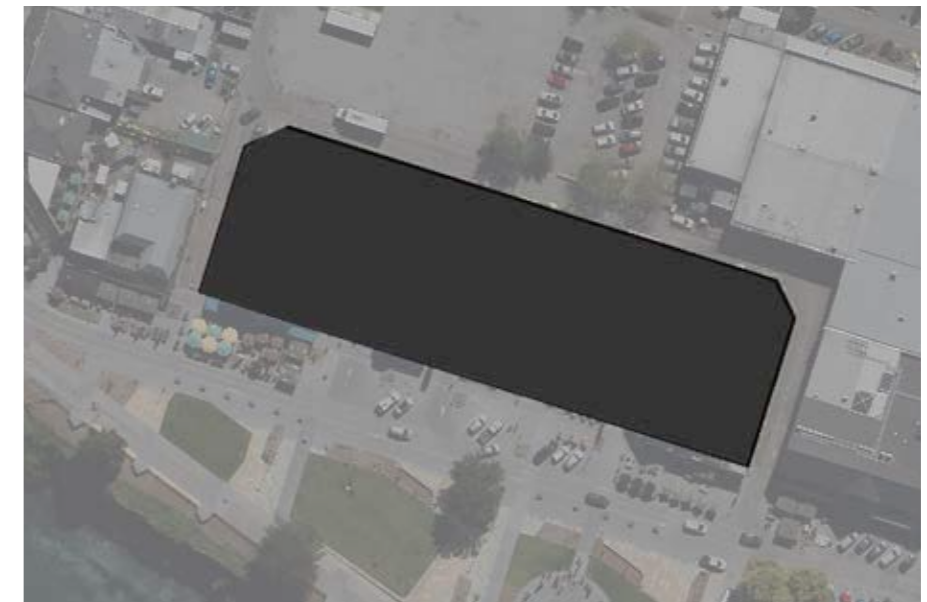
2PM

- 18m: 30.5m shadow
- 15m: 25.2m shadow
- 12m: 20.4m shadow
- 10m: 16.9m shadow



4PM

- 18m: 42m shadow
- 15m: 35.9m shadow
- 12m: 28.4m shadow
- 10m: 23.9m shadow



6PM

No data as sun has already set

The following images have been prepared by taking screen shots from a rendered SketchUp sun study at the Summer, Autumn, Winter and Spring solstices at various times during the day. Shadow measured at longest point.

CLIENT/Project name: TAUPO DISTRICT COUNCIL / SUNSHINE ANALYSIS
 Drawing name: **SHADE ANALYSIS WINTER**
 Designed by: DAVE COMPTON-MOEN
 Drawn by: DAVE COMPTON-MOEN / ZOE HUGHES
 Original issue date: 28 JULY 2022
 Scales: 1:1500 @A3

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DCM	25.10.2023
DCM	31.10.2023



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 CHRISTCHURCH 8011
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Project no / drawing no: 2022_135 / 009

Revision:D

Attachment B: RESPONSE ECONOMICS

PROPERTY ECONOMICS



TAUPŌ TOWN CENTRE

HEIGHT THRESHOLDS

ECONOMIC MEMORANDUM

Client: Taupō District Council

Project No: 52167

Date: October 2023

27 October 2023

ECONOMIC MEMORANDUM

To: Taupō District Council

c/- Matt Bonis

PC40 Section 42A Reporting Planner

Email: matt@planzconsultants.co.nz

RE: REVIEW OF KĀINGA ORA TAUPŌ TOWN CENTRE 15M HEIGHT THRESHOLD RELIEF

INTRODUCTION

Property Economics understand that there are questions from the Hearings Panel with regard to PC40: Taupō Town Centre Environment relating to recommendations made by Kāinga Ora pertaining to the economic merits associated with implementing a 15m height threshold over a few specified blocks within the immediate environs adjacent to the core 18m commercial area as recommended in the s42A Report within the Taupō Town Centre (TTC).

In attending that Hearing, I also acknowledge and understand that there are also contrary views expressed by other submitters (LWAG and D Morrison) also relating to commercial building height (urban design and shading) as it relates more specifically to that block fronting Roberts Street within the TTC.

Given the above context, this Economic Memo considers the economic merits and potential costs and benefits associated with the implementation of a gradually transitioned / layered height approach within the TTC commercial context. It also identifies the likely economic consequences of allowing a 15m height threshold in the specified area and assesses its potential impact on the role and function of the core 18m area relative to the 12m limit included in Plan Change 40 - Taupō Town Centre (PC40) to determine where it is considered a more appropriate height threshold across the subject area.

The following figure illustrates the specific area where Kāinga Ora's proposed height threshold of 15m is being sought within the existing commercial environment of the TTC.

FIGURE 1: KĀINGA ORA'S RELIEF ON TAUPŌ TOWN CENTRE HEIGHT THRESHOLDS


Source: Property Economics, Taupō District Council, LINZ, Google Maps

ECONOMIC IMPACTS OF ENABLING 15M HEIGHT THRESHOLD OVER SPECIFIED AREA

Enabling a 15m height threshold within the notated area (as shown on Figure 1 above) in conjunction with the 18m height enablement recommended through the s42A Report would represent a more refined / layered height regime within the TTC. This approach would foster greater flexibility for the utilisation of office and residential spaces in the area while concurrently preserving the pivotal role of the core commercial zone, characterised by an 18m height threshold.

It would add additional feasibility to development within the area and therefore capacity to the waterfront blocks further entrenching the area as the primary focus for 'taller' development for a longer period of time. It would complement rather than undermine the 18m height area and improve economic efficiency of the commercial land resource.

The 15m threshold across the subject area would represent additional consolidation of activity and 'taller' buildings within the TTC and provide additional opportunity for an increased number of landowners to develop a built form with higher floor-to-floor stud heights.

MINIMUM FLOOR HEIGHT AT GRADE / LOFT HEIGHTS

Enablement of the 15m / 18m height for commercial buildings also enables a higher minimum ground floor stud height to be included in new buildings, which has the benefit of providing more flexibility and use of the ground floor street facing space beyond the initial lease. Land use activities

of ground floor tenancies change constantly over time, so a higher ground floor stud height can make the space more usable to a greater number of potential tenants. This reduces the risk of the space being vacant for extended periods of time.

In terms of an appropriate ground floor stud height in a commercial environment such as the TTC, I consider 3.5m as a minimum, but acknowledge 4m is also a metric used in a number of other plans, albeit for larger more complex commercial centres than the Taupō Town Centre where there may be larger depths and scale of development (such as Malls, Department Stores and anchor stores).

In a Taupō Town Centre context I would consider that there are material economic benefits (as above) that would constitute the basis for a provision for a minimum height at grade (of 3.5m) to be introduced through PC40. For the avoidance of doubt, I would not consider it necessary, or appropriate to also include above grade loft height minimums, as this can be resolved by the market and the need to accommodate or provide future flexibility for Levels 1 and above is unnecessary as these spaces would predominantly be utilised for office or residential type activities, rather than retail.

The primary economic rationale and advantages of accepting Kāinga Ora's relief on this matter includes:

- ⊕ Greater Development Flexibility and Growth Potential
- ⊕ Facilitating Core Area's Role and Function
- ⊕ More Efficient Height Transition
- ⊕ Improved Land Use Efficiency
- ⊕ Consolidation of Activities Within the Specified Blocks
- ⊕ More Efficient Infrastructure Use
- ⊕ Greater Economic Resilience
- ⊕ Greater Economic Viability

Considering the economic factors outlined above are considered to outweigh any economic costs. Opting for a layered approach to height thresholds within the TTC is considered as an economically efficient and more appropriate height setting within the TTC. The provisions enable a more adaptable, economically viable and flexible urban environment that balances the core's prominence with the overall functionality of the TTC.

ROBERTS STREET HEIGHT THRESHOLD

Roberts Steet is an important public area within the TTC, particularly after the recent significant injection of public funds into improving the quality of the public realm space and amenity it affords the community. This retail street frontage is lined with food and beverage operators that spill out onto this public space allowing customers to enjoy gatherings in the sun. As such, this strip is a high amenity and highly valued public area.

On 27 October 2023 I met and discussed with Mr Bonis (Planning) and Mr Compton-Moen (Urban Design) for the Council the economic, planning and urban design response to the Panel. After viewing new 10m, 12m, 15m and 18m building height shading diagrams from Mr Compton-Moen, I consider 12m represents a more appropriate height threshold for Roberts Street than the 15m height threshold sought in Kāinga Ora's relief. A 12m height in this specific location provides more flexibility (relative to the current 3 storeys and assumed 10m in the ODP) for future redevelopment of sites along the strip encapsulating the economic benefits identified earlier in this Memo.

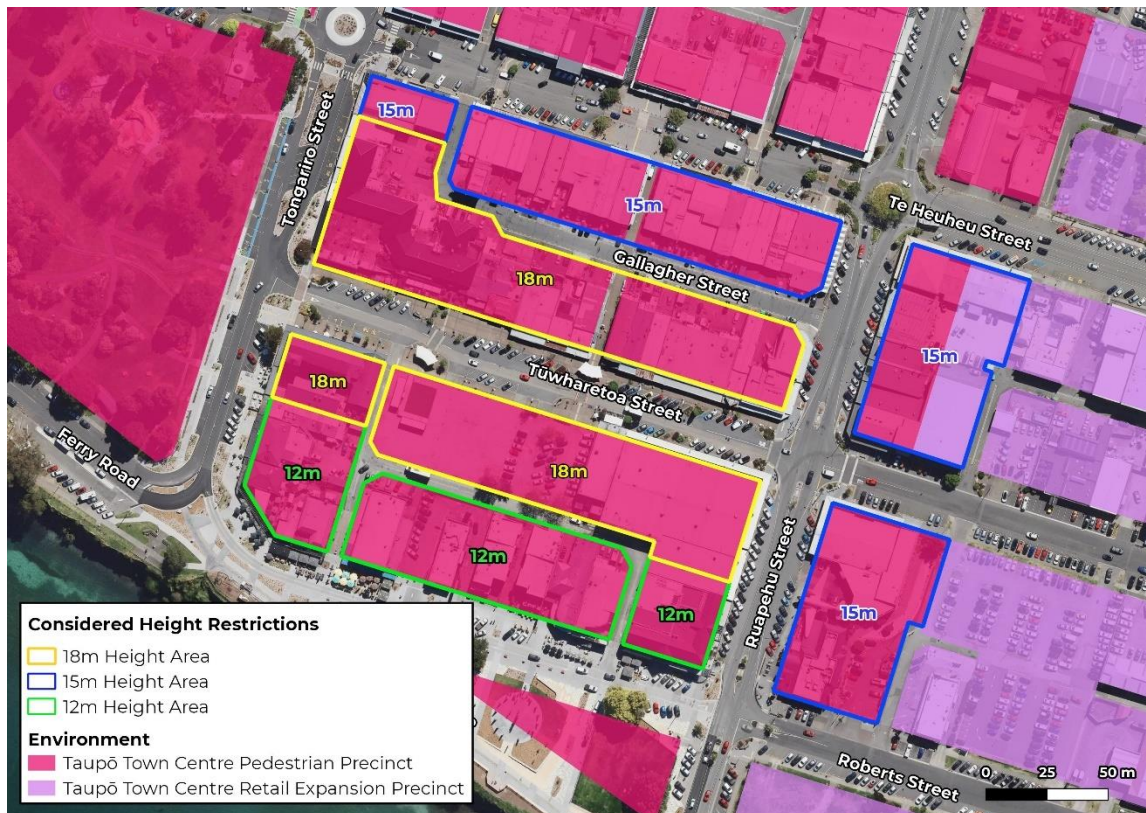
More importantly in this instance, a 12m height also has a reduced shading footprint across the high amenity public area relative to the 15m height which casts shade over a greater proportion of the public area. The increased shading of the 15m height is likely to adversely affect the economic performance of the food and beverage operations on the Roberts Street strip through reduced patronage, i.e., less people wanting to visit / socialise / dine in the shade.

Overall, from an economic perspective I consider a 12m height along the Roberts Street strip (relative to 15m sought by Kāinga Ora) would provide a better-quality environment and experience, and likely lead to a higher level of economic performance of the operations in the area as a greater proportion of the public space would be in sunshine for longer periods of the day / year.

With tourism and visitor expenditure being an important component of the Taupō economy, the Roberts Street area represents an important location for food and beverage expenditure, especially due its lake front location and unobstructed views to Mt Ruapehu. This visitor 'hot spot' would be a more appealing place to visit with a greater proportion of the public area in sunlight which better facilitates spending in the strip.

The following figure represents the most appropriate height thresholds from an economic perspective.

FIGURE 2: MOST APPROPRIATE ECONOMIC TAUPŌ TOWN CENTRE HEIGHT THRESHOLDS



Source: Property Economics, Taupō District Council, LINZ, Google Maps

CONCLUSION

In my view, the potential economic benefits associated with the proposed 15m height threshold in the relief sought by Kāinga Ora over the specified blocks would be greater than those associated with the 12m height threshold proposed in the PC40 and create a more resilient TTC.

The one area of exception is Roberts Street where a 12m height threshold is considered more appropriate from an economic perspective to balance redevelopment flexibility and improve development feasibilities with impacts of extended shading on such an important public realm area.

Therefore, I support the proposed building height changes as identified in Figure 2 above from an economic viewpoint and consider the new height thresholds will assist the TTC becoming more efficient, productive and competitive at playing its role and function in the market.

If you have any queries, please give me a call.

Kind Regards

Tim Heath