

Before Hearing Commissioners  
at Selwyn

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*under:* the Resource Management Act 1991

*in the matter of:* Plan Change 59 for the rezoning of Living 2 and Living  
2A to Living West Melton South Zone at West Melton

*by:* **GW Wilfield Ltd**  
*Applicant*

Statement of Evidence of Andrew Alan Metherell

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Dated: 21 January 2021

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## **STATEMENT OF EVIDENCE OF ANDREW ALAN METHERELL**

### **INTRODUCTION**

- 1 My full name is Andrew Alan Metherell.
- 2 I am a Chartered Professional Engineer, a Chartered Member of Engineering New Zealand, and am included on the International Professional Engineer Register. I hold a Bachelor of Engineering (Civil) with Honours degree from the University of Canterbury. I am also an Associate Member of the New Zealand Planning Institute.
- 3 I have more than twenty years' experience, practising as a traffic engineering and transportation planning specialist based in Christchurch. I am currently employed as the Christchurch Traffic Engineering Team Leader at Stantec New Zealand (Stantec), a global multi-disciplinary engineering consultancy. In this role I am responsible for providing transport engineering advice, assessment and design for a wide range of activities.
- 4 I have had extensive experience providing transportation engineering advice and assessment for land development projects in the greater Christchurch area. Relevant to this project I am regularly involved with the planning, assessment and design of the transport networks for residential growth areas.
- 5 Within West Melton, and over a period of more than 10 years, I have undertaken transportation assessments for the Plan Changes that established Preston Downs, and for the commercial centre on Weedons Ross Road. I have also prepared transportation assessments for large scale residential subdivision consent applications at Gainsborough, Preston Downs, and Wilfield, and resource consent applications for commercial centres on Weedons Ross Road and SH73.
- 6 I was recently part of a the Stantec team that prepared a transportation assessment for Private Plan Change Request 67, which has been submitted to Council and seeks to extend the residential urban boundary south of the Wilfield site.
- 7 I am familiar with the application by GW Wilfield Ltd (*the Applicant*) for a plan change to rezone existing Living 2 and Living 2A land at West Melton to Living West Melton South Zone (*the Application*), south of State Highway 73 at West Melton (*the Site*).

- 8 I was part of the Stantec team that prepared the Integrated Transport Assessment (ITA), dated 14 August 2018 and submitted with the Application.<sup>1</sup>

### **CODE OF CONDUCT**

- 9 I have read the Environment Court's Code of Conduct for Expert Witnesses, and I agree to comply with it. My qualifications as an expert are set out above. I confirm that the issues addressed in this brief of evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

### **SCOPE OF EVIDENCE**

- 10 Whilst I do not intend to reproduce the comprehensive ITA, my evidence will provide a summary of the key parts of the ITA and address any matters that have changed since the time of the ITA. It will then go on to provide specific responses to issues related to traffic matters raised by submitters, and then provide responses to matters raised in the section 42A report (the *Officer's Report*).
- 11 In preparing this evidence I have reviewed:
- 11.1 The Application;
  - 11.2 Submissions lodged in relation to the Application;
  - 11.3 Selwyn District Long Term Plan 2018-2028 and Annual Plan 2020/21;
  - 11.4 Canterbury Regional Public Transport Plan 2018-2028;
  - 11.5 Relevant provisions of the operative Selwyn District Plan;
  - 11.6 Relevant provisions of the Canterbury Regional Policy Statement; and
  - 11.7 The Officer's s42A Report and a memorandum from Andrew Mazey, Selwyn District Council Asset Manager Transportation.

### **CHANGES TO THE PROPOSAL**

- 12 A key change has been proposed to the Plan Change provisions by the Applicant, in response to submissions. The change as set out below provides for the issue of any further subdivision completion certificates under Section 224 of the Act to be non-complying if the State Highway 73 / Weedons Ross Road intersection has not been

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<sup>1</sup> Attached at Appendix 7 of the Application.

signalised. The Plan Change as lodged did not propose subdivision to be tied to the intersection upgrade.

- 13 The provisions addressing this are as follows:

*Rule 12.1.3.59*

*No completion certificate shall be issued under section 224 of the Act within the Living WM (South) Zone (other than for a boundary adjustment or creation of an allotment solely for utility purposes), until such time as the State Highway 73/Weedons Ross Road intersection is signalised.*

*Non-complying Activities – Subdivision- General*

*12.1.7 Except as provided for in [Rules 12.1.5](#) and [Rules 12.1.6](#), the following activities shall be non-complying activities:*

*...*

*12.1.7.10 Any subdivision that does not comply with Rule 12.1.3.59.<sup>2</sup>*

## **SUMMARY OF THE ITA**

### **Site Location**

- 14 **Attachment 1** shows that the Wilfield residential subdivision is in the south-east of West Melton, south of State Highway 73 (SH73) and east of Weedons Ross Road. SH73 connects Christchurch with the West Coast while Weedons Ross Road is a Selwyn District arterial road connecting SH73 to Rolleston and the Christchurch Southern Motorway.
- 15 The ITA outlines surrounding land uses and activities, including the Gainsborough subdivision to the north, the village shopping centre and school to the north-west and the domain and other community facilities to the west.
- 16 **Attachment 2** shows all vehicle access to the Wilfield subdivision is from Weedons Ross Road, via two T-intersections on Kingsdowne Drive.

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<sup>2</sup> I note that the Officer's Report recommends rejecting proposed Rule 12.1.7.10, but only on the grounds that non-compliance with Rule 12.1.3.59 would be a non-complying activity under Rule 12.1.7.1 in any case.

### **Existing Transportation Infrastructure**

- 17 The ITA describes the two subdivision frontage roads (SH73 and Weedons Ross Road) as well as their existing priority-control crossroad intersection formation, the existing Wilfield subdivision roads, existing off-road cycle and pedestrian provision and the bus network.
- 18 Since the ITA was prepared, the speed limit on SH73 through West Melton has been reduced from 70km/h to 60km/h.
- 19 Within the subdivision, Kingsdowne Drive is the primary loop road and has intersections with Weedons Ross Road at its northern and southern ends. Silver Peaks Drive is a secondary loop road which provides access to the northern and eastern parts of the subdivision. Both roads have 9m wide carriageways.
- 20 Ridgeland Way is currently a short cul-de-sac in the southern part of the subdivision with an 8m wide carriageway.
- 21 When the ITA was prepared, it was understood that the Red Bus service between Darfield and Christchurch had been discontinued. Metro is currently operating an express commuter service on weekdays from Darfield to Christchurch City in the morning, with a return service in the evening. The service stops in West Melton at West Melton School and Preston Downs subdivision on Weedons Ross Road, and outside the Gainsborough subdivision on Halkett Road.

### **Current Travel Patterns**

- 22 The ITA outlines daily traffic volumes on the key surrounding roads, hourly traffic volumes on SH73, weekday peak hour turning volumes at the SH73 / Weedons Ross Road intersection and existing weekday peak hour delays at that intersection.
- 23 Current information from NZTA indicates that SH73 carries approximately 13,300 vehicles per day (vpd) east of West Melton and 7,200vpd to the west, while Weedons Ross Road carries moderate traffic volumes for an arterial road of approximately 2,000vpd. During peak periods, the intersection of these two roads is operating with average delays in the order of 30 and 50 seconds for drivers on the southern Weedons Ross Road approach in the AM and PM peak periods respectively.

### **Road Safety**

- 24 The ITA includes a thorough review of crashes in the vicinity of the Wilfield subdivision during the 2013-2017 period.
- 25 The two serious crashes identified were isolated incidents which did not present significant safety concerns with the traffic environment or road network layout.

- 26 The crash records at the SH73 / Weedons Ross Road intersection (no injury crashes) did not suggest it was a high-risk intersection.
- 27 No crashes had been reported at either of the Weedons Ross Road / Kingsdowne Drive intersections or within the Wilfield subdivision.
- 28 I carried out an updated crash search in September 2020 to review records of crashes reported since 2017. There have been no notable changes to crash patterns at the SH73/Weedons Ross Road intersection, with two further crashes including one minor injury crash. There have been no crashes reported in the Wilfield subdivision or at the Kingsdowne Drive intersections on Weedons Ross Road.

#### **Future Development**

- 29 It was announced in early 2020 that the Government's NZ Upgrade Programme (NZUP) funding package will include funding for an upgrade of the SH73 / Weedons Ross Road intersection. The memorandum from Mr Mazey outlines that NZTA is planning to install traffic signals in late 2021, including signalised pedestrian crossings. The draft plan consulted on will also see West Melton Road being realigned to meet Weedons Ross Road opposite Kingsdowne Drive (north) where a roundabout with pedestrian linkages would be constructed. This will improve access between the Domain and Wilfield.
- 30 The ITA provides narrative on the Christchurch Southern Motorway Stage 2 (CSM2), which was under construction at the time, Weedons Ross Road seal widening planned by Selwyn District Council, the West Melton Corridor Management Plan for SH73 through the township and a potential cycle route between West Melton and Rolleston.
- 31 The CSM2 has recently been opened with a full interchange provided at Weedons Ross Road. The interchange provides access between the motorway and both Rolleston and West Melton. The recent opening has not allowed for investigation of the actual changes in travel patterns on the local Selwyn District road network, although as set out in the ITA it is expected that it will provide for improved travel route options to and from West Melton.
- 32 As set out at Paragraph 6 in the memorandum by Andrew Mazey for SDC, there is a Weedons Ross Road upgrade project programmed for 2021/22 and included in its draft 2021-2031 Long Term Plan. The project is to upgrade this route through seal widening and related intersection safety upgrades. Final approval is subject to the confirmation of Council and NZTA funding for this work.
- 33 A key element of the SH73 Corridor Management Plan previously developed to support growth in West Melton was that it identified

the need to upgrade the SH73 / Weedons Ross Road intersection. The upgrade is to improve safety and accessibility for vehicle, pedestrian and cyclist movements. As described, the intersection upgrade now has NZTA funding and is being planned.

- 34 A cycle connection between West Melton and Rolleston is still planned. The latest information set out by Mr Mazey from SDC suggests that it is included in the draft 2021-2031 Long Term Plan and planned for 2034/35.
- 35 While Environment Canterbury has not indicated in the Canterbury Regional Public Transport Plan an intention to provide more specific direct bus services for West Melton, the planned upgrades to the intersections and roads will facilitate any services being accommodated on the road network in the future.

### **Proposed Plan Change**

- 36 The ITA outlines the transport-relevant aspects of the proposed Plan Change including subdivision access, internal roading, pedestrian and cyclist provision and public transport provision.
- 37 The proposed Plan Change will allow for an increased density of residential development in parts of the current Living 2 and Living 2A zones, as set out in Paragraph 22 of the Planning Officer's Report. This will result in approximately 72 additional lots within the subdivision, above the currently consented 180 lots.
- 38 As outlined in the ITA, approximately 41 of the additional lots could be developed in the current Living 2A zone, accessed via Ridgeland Way. The remaining 31 lots could be developed primarily within the Living 2 zone area that fronts both Kingsdowne Drive and Silver Peaks Drive (Lot 706 DP 508829 and Lots 270-271 DP 525228).
- 39 A proposed Outline Development Plan (ODP) for the Living WM South Zone was included in the ITA. It included the main existing roads in the subdivision, being Kingsdowne Drive, Silver Peaks Drive and Ridgeland Way, as well as an extension of Ridgeland Way to serve the Living 2A part of the subdivision. A series of reserves, both existing and proposed, were also shown on the ODP as well as some off-road pedestrian connections.
- 40 The Applicant has prepared a revised consolidated ODP which I have included as **Attachment 3** to this evidence. This ODP explicitly indicates a network of shared pedestrian / cycle paths through the reserves and alongside various roads. It also indicates Ridgeland Way extending through the southern part of the Living 2A area and indicatively looping through the adjacent land.

### **Traffic Generation / Distribution**

- 41 I have assessed that the additional 72 residential lots could generate approximately 40 vehicle movements per hour (vph) during peak times and 430 vehicle movements per day (vpd), based on previously adopted and accepted traffic generation rates for West Melton<sup>3</sup>.
- 42 Based on existing traffic patterns and previously adopted analysis, I have assessed that at peak times, 65% of the additional traffic generated could travel to/from the east along SH73, 25% could travel to/from the south along Weedons Ross Road and a combined 10% could travel to/from the West Melton township and the west along SH73.

### **Traffic Effects**

- 43 The ITA sets out that the formations of the existing roads within the subdivision are appropriate for the traffic volumes that they could carry with the Plan Change. I note that Mr Mazey agrees with this<sup>4</sup>.
- 44 The additional approximately 41 lots that could be developed along Ridgeland Way could generate approximately 25vph during peak times, which will readily be able to be accommodated on that road.
- 45 As I have outlined above, the additional 72 lots in total that could be developed with the Plan Change could generate approximately 40vph during peak times. I expect these traffic movements would be split to some extent across the northern and southern sections of Kingsdowne Drive and would readily be able to be accommodated on the road network.
- 46 The ITA includes analysis of the potential effects of the additional traffic generation on the performance of the existing SH73 / Weedons Ross Road intersection. This is not relevant now given the imminent signalisation of the intersection and the Applicant volunteering that further Section 224 completion certificates cannot be issued for subdivision until the intersection upgrade has been completed. This is proposed through a District Plan Rule<sup>5</sup> and I will discuss this further in my evidence.
- 47 The extra traffic volumes that could be generated by the proposed Plan Change would be very low compared to both existing and future through volumes on SH73 and Weedons Ross Road and they would have negligible effects on the performance of the wider transport network.

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<sup>3</sup> And also adopted in Paragraph 5 of Mr Mazey's memorandum

<sup>4</sup> Paragraph 5 of Mr Mazey's memorandum.

<sup>5</sup> Proposed Rule 12.1.3.59, Appendix 7 of the Planning Officer's Report.



### **Planning Context**

- 48 The ITA includes assessment of the Application against relevant District Plan and Regional Policy Statement transport-related objectives and policies.
- 49 It was assessed that the proposed Plan Change is generally consistent with transport related objectives and policies in both the District Plan and Regional Policy Statement. The ITA considered Policy B4.3.98 related to growth of West Melton being focussed north of SH73. This policy is intended to minimise effects of development on the safety and efficiency of the highway.
- 50 Much of the assessment in the ITA is focussed on the performance of the SH73 / Weedons Ross Road intersection in its current form and the change in performance associated with the small increase in traffic volumes that could result from the proposed Plan Change. I consider the Plan Change will be consistent with the policy given the imminent upgrading of the intersection and the proposed Rule 12.1.3.59 which will prevent completion of further subdivision until the intersection upgrade is carried out.
- 51 The small increase in traffic volumes resulting from the proposed Plan Change will not impact on the function of the surrounding arterial road network. The existing internal subdivision roads will continue to be of an appropriate form and future roads will be able to be provided to similar standards. The Wilfield subdivision is well connected for pedestrians and cyclists with a series of off-road paths providing routes towards West Melton. Further enhancements are proposed with the NZTA upgrades.

### **RESPONSE TO ISSUES RAISED BY SUBMITTERS**

- 52 I have reviewed the submissions on PC59, and there are some common themes. I address these matters as follows:

#### **Submitter Concern: SH73 / Weedons Ross Road Intersection**

- 53 Most of the submitters raised concerns with the impact that additional traffic generation could have on the performance of the SH73 / Weedons Ross Road intersection. Some of these touched on related concerns such as safe pedestrian (including bus passenger), and cyclist crossing provision near the intersection and high vehicle speeds on SH73.
- 54 I consider that the proposed intersection upgrade will address the submitter concerns around the intersection performance and pedestrian crossing safety. As set out in Section 9.2 of the ITA, traffic signals will allow the intersection to function efficiently and will allow for foreseeable growth in both West Melton traffic volumes and through traffic volumes. The signalised intersection will provide a safe location for pedestrians, and cyclists to cross SH73.

- 55 I note that the speed limit on SH73 through West Melton has already been lowered to 60km/h since the submissions were lodged and I would expect the existing speed limits in the area will be reviewed for suitability again as part of the design and planning for the intersection upgrade.

**Submitter Concern: Wilfield Subdivision Transport Environment**

- 56 Three submissions raised specific concerns with matters related to the internal Wilfield subdivision roading.
- 57 Andrew Cowan raised concerns with on-street car parking affecting traffic flow and restricting driver visibility and access. I note that in the northern section of Kingsdowne Drive where the sections are smaller than in the remainder of the subdivision, houses still typically have two or three car garages with driveways in front for off-street parking.
- 58 I consider that on-street car parking would not be widespread even in the denser areas. In any case, the 8-9m road widths adopted throughout the subdivision are typical residential road widths which allow enough width for on-street car parking and traffic movement to be maintained. On-street car parking can have the traffic calming benefit of narrowing the effective traffic lane widths and thus slowing drivers down. SDC has the option of managing localised parking through the use of no stopping lines where forward visibility could be restricted such as at bends.
- 59 Lucy Bell highlighted safety concerns she has with high speeds of vehicles already using Kingsdowne Drive. This is an existing road already serving a large subdivision and its 9m carriageway width is both a common width for residential roads and consistent with SDC standards for primary local roads. Not all of the adjacent lots have been developed which can contribute to a perception of space and thus higher speeds. This will change over time as development progresses. Also, as I discussed the on-street parking and development generally can contribute to some traffic calming.
- 60 The proposed Plan Change will only result in a small increase in the traffic volumes using Kingsdowne Drive. Traffic calming features to achieve slower vehicle speeds can be considered in the designs of any future roads within the subdivision.
- 61 Andrew Dyson is concerned about increased traffic movements on Silver Peaks Drive and effects on child safety. There will only be very small increases in traffic volumes on Silver Peaks Drive. As outlined earlier, approximately 31 additional lots in the Living 2 balance lot could result from the Plan Change. At least one third of these would likely be accessed directly off Kingsdowne Drive, meaning approximately 20 lots could be developed along the

southern side of Silver Peaks Drive. These could generate approximately 10-15vph during peak times; a low additional traffic volume which I consider would have a negligible effect on the safety of Silver Peaks Drive. Furthermore, and as I have already outlined, I consider that the formation of Silver Peaks Drive, as well as the other existing subdivision roads, will remain appropriate to carry the forecast traffic volumes.

### **RESPONSE TO OFFICER'S REPORT**

- 62 I have reviewed the Officer's Report prepared by Ms Rachael Carruthers and the memorandum containing comments from Mr Andrew Mazey, SDC Asset Manager Transportation.
- 63 Mr Mazey has no concerns with the increase in density sought from a local roading and traffic perspective. I agree with him that the as-built configuration and standard of the local roading network within the existing Wilfield subdivision and the extension of Ridgeland Way, with an 18m wide road reserve and 8m wide carriageway, will be appropriate to cater for the additional traffic volumes.
- 64 Mr Mazey outlines that, in his opinion, the current SH73 / Weedons Ross Road intersection upgrade plans currently proposed by NZTA will satisfy the Council's and residents' long-standing safety and performance concerns with the intersection. Furthermore, the upgrade will cater for any reasonably anticipated traffic increases and usages in the area that will occur over time associated with growth of the West Melton township. I agree with his assessment.
- 65 Mr Mazey concluded that he supports the proposed Plan Change subject to a rule (or similar) being provided that will appropriately pause the subdivision phases of this Plan Change until the SH73 / Weedons Ross Road intersection is upgraded with traffic signals. Ms Carruthers accepts the conclusions of Mr Mazey.
- 66 As outlined already, the Applicant has volunteered a Rule that would prevent the completion of any further residential subdivision beyond what has already been consented, until such time as the SH73 / Weedons Ross Road intersection is signalised.

### **CONCLUSIONS**

- 67 I consider that with the Rule 12.1.3.59 proposed to prevent the completion of further subdivision until the SH73 / Weedons Ross Road intersection upgrade is completed, the additional traffic resulting from the proposed Plan Change will readily be able to be accommodated on the surrounding arterial road network.
- 68 The existing Wilfield subdivision roading network and an extension of Ridgeland Way will be able to accommodate the small additional traffic volumes resulting from the Plan Change.

69 For the reasons I have set out, I consider that the proposed Plan Change can be supported from a transportation perspective.

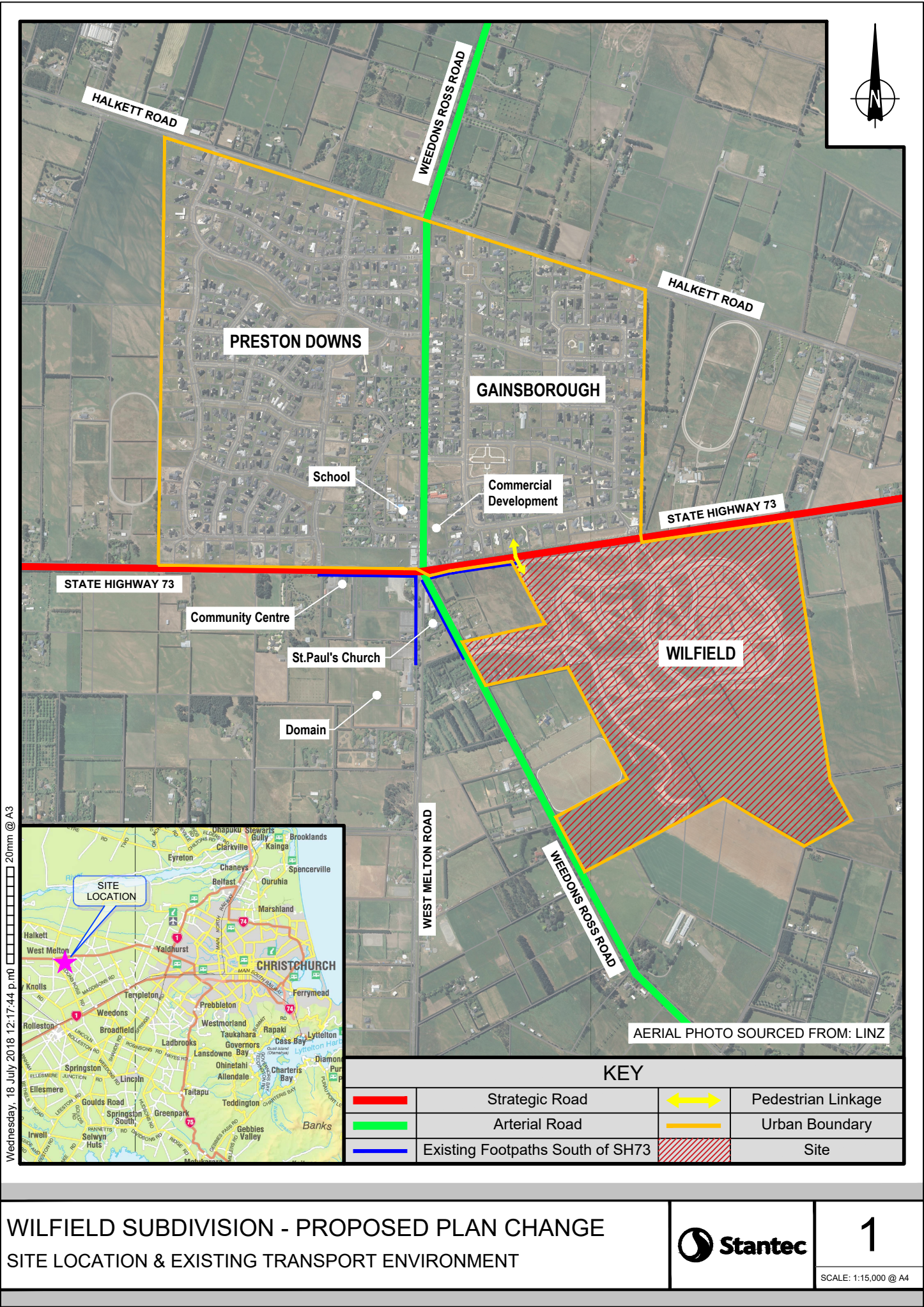
Dated: 21 January 2021



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Andrew Alan Metherell









AMENDMENTS:		
AMENDMENT	DATE	DESCRIPTION

- NOTES:
- 1) Areas and dimensions are approximate only and are subject to final survey and deposit of plans.
  - 2) Service easements to be created as required.
  - 3) This plan has been prepared for subdivision consent purposes only. No liability is accepted if the plan is used for any other purposes.

Legend

--- Zone boundary

**WILFIELD**  
WEST MELTON

JOB TITLE:

SHEET TITLE:

Overall Plan

DRAWING STATUS:

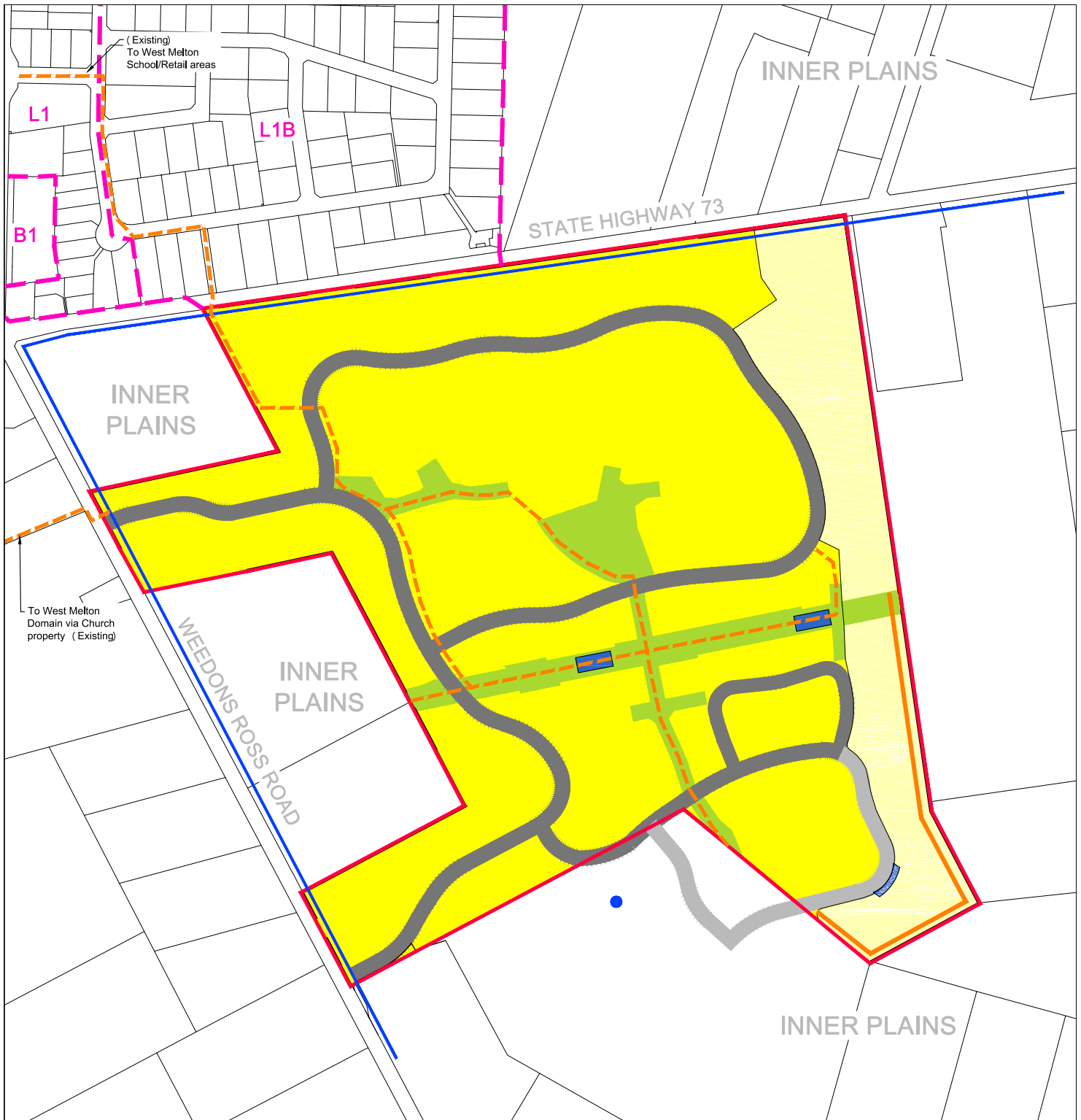
Proposed Subdivision

SCALE: 1:2000@A1 DATE: December 2017  
1:4000@A3

CAD FILE: J:\18130\_1\Subcon\18130\_1\_Application 01-08 Overall RD.dwg REVISION:

DRAWING No: C.18130/1 SHEET No: 1 OF 1

RO



## Legend

ODP boundary	Primary Route	Low Density	Neighbourhood Park
Parcel	Secondary Route	Medium Density	Interface Treatment
Indicative location for water bore	Existing water race	Soakage Areas	Shared pedestrian / cycle lane

### Note:

All sections adjacent to Inner Plains zoned land will have a notice on their LIM referring to any potential reverse sensitivity issues between Residential and Rural landuses.

Interface treatment includes having larger residential sections as perimeter blocks where sections immediately adjoin a boundary with Inner Plains.

## Outline Development Plan OVERALL Plan

Living West Melton  
(Living WM) South Zone



Scale: 1:7500@A4