

BEFORE AN INDEPENDENT COMMISSIONER

UNDER the Resource Management Act 1991 (**RMA**)

IN THE MATTER OF an application by Industre Property Rua Limited
for resource consent for a light industrial
development at 16A Wickham Street, Hamilton
(application number LU/0038/23)

**STATEMENT OF EVIDENCE OF ADAIR BRIMELOW FOR INDUSTRIE
PROPERTY RUA LIMITED**

ENGINEERING DESIGN SERVICES

DATED 8 NOVEMBER 2023

MAY IT PLEASE THE COMMISSIONER

INTRODUCTION

1. My full name is Adair Trenouth Brimelow. I am a Chartered Professional Engineer and a member of Engineering New Zealand. I am a Senior Civil Engineer at Stiffe Hooker Limited.
2. I hold the qualification of Bachelor of Applied Science Degree (Engineering) from Massey University. I have 23 years civil engineering experience. My background and expertise lie in land development, which includes the design and management of earthworks, three waters drainage and services, roading, and project management. I have experience in preparing applications for Resource Consents, Building Consents, and Engineering Approval Applications to Councils throughout New Zealand for private and public clients. Additionally, I have experience in reviewing Resource Consent Applications through engagements by Auckland Council.
3. This evidence is in support of the application (the **Application**) to Council by Industrie Property Rua Limited (**Industre**) for a light industrial development, including construction of a storage and distribution facility, three warehouses and ancillary offices at 16A Wickham Street, Hamilton (**Site**).

Code of Conduct for Expert Witnesses

4. I have read and am familiar with the Environment Court's Code of Conduct for Expert Witnesses, contained in the Environment Court Practice Note 2023, and agree to comply with it. My qualifications as an expert are set out above. Other than where I state that I am relying on the advice of another person, I confirm that the issues addressed in this statement 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 that I express.

Scope of my evidence

5. I was retained on behalf of Industrie to advise on the aspects of the Application relevant to my area of expertise. I have been engaged to provide engineering design services to assist in the servicing of the proposed development in respect to stormwater, wastewater, and water supply.
6. My evidence will address the following matters:
 - (a) wastewater;
 - (b) water supply;
 - (c) stormwater; and
 - (d) the Council's Section 42A report.
7. I have reviewed the previously provided engineering reports by Stiffe Hooker Limited to support the Application which consist of:
 - (a) Industrie Property Rua Proposed Site Development 16A Wickham Street, Hamilton. Application for Resource Consent Engineering Infrastructure Report. Rev. A dated 20 February 2023.
 - (b) 16A Wickham Street Development; WRC Stormwater Discharge Consent Application. Application No. App145540 (Reference Id AUTH145540.01.01; IRIS Document No: 76422; File No: 61 87 45A). Response to Section 92 Letter dated 2 May 2023, Letter dated 9 May 2023.
 - (c) Industrie Property Rua Proposed Site Development 16A Wickham Street, Hamilton. Application for Resource Consent Engineering Infrastructure Report. Rev. B, dated 30 June 2023.
8. I have reviewed the Hamilton City Council Submission and have also addressed matters raised in this submission in my evidence.
9. No other submitters raise concerns within the area of my expertise.

WASTEWATER

10. Currently there is no wastewater connection to the Council's public reticulation and the proposal relies on an onsite private wastewater storage tank that will be periodically emptied and disposed of at an approved offsite licensed facility.
11. Each office will drain their respective wastewater via conventional pipe reticulation to the holding tank located near the entrance to the Site. This is shown in an updated Site plan **attached** for reference at **Appendix A**.
12. This is typically how wastewater is managed in areas that are outside municipal connections, or where there is no available space for onsite treatment and disposal and/or ground conditions prevent discharge to ground (e.g., high water table, poor ground soakage).
13. I do not consider this methodology to be a significant environmental or health risk and have consented similar schemes in the past with no reported issues.
14. Safety measures such as a high-level alarm (visual and audible) will be installed to ensure overflows are unlikely to occur.
15. Traffic movements for the disposal vehicles can be calculated based on expected number of staff. Based on a total of 40 staff for the overall development and a single holding tank (as identified on the plans), I expect wastewater to be removed via truck approximately once per week based on a 6-day working week and 10,000 L storage tank.

Site	Staff No.	Discharge (L/person/day)	Discharge (L/day)	Discharge (L/week)
Wattyl	20	40	800	4,800
Warehouse 1	10	40	400	2,400
Warehouse 2	5	40	200	1,200
Warehouse 3	5	40	200	1,200
TOTAL	40	160	1,600	9,600

16. I note that the figures above are conservative, as WattyI anticipate only having five employees. Notwithstanding this, I have completed a further sensitivity analysis based on these figures. If the staff numbers or discharge per person were to double then the expected weekly discharge would increase to 19,200 L per week. This may then simply require either a truck/trailer for disposal or two truck movements per week.
17. The wastewater will need to be removed (via sucker-truck) off-site by a licensed contractor and the associated traffic movements are expected to be very low. The evidence of Judith Makinson discusses traffic movements in further detail.
18. I understand that Hamilton City Council raised a concern in its submission that the wastewater should not be disposed of at a wastewater treatment plant within the Hamilton district. I understand that it has been confirmed that the wastewater will be accepted at a wastewater treatment plant in Waipa. Certainty of the location of disposal could be provided in a consent condition as proposed below.
19. The proposed activities on the Site do not involve any trade waste discharges, and the WattyI development has also been designed with two catch pits to provide a containment system (separate from the wastewater tank) in the event of a spill. Any trade waste material in the catch pits would also be removed by a licensed contractor. I have also proposed a condition of consent to provide for this.

Proposed Conditions of Consent

20. It is proposed to provide the following conditions of consent for wastewater and trade waste disposal:
 1. *The water and wastewater systems must be designed and constructed in general accordance with the consented plans and submitted for approval to Council Development Engineering. Quality assurance certificates from a suitability qualified professional shall be completed, signed, and submitted to Council's Team Leader – Development Engineering for each system on completion of installation.*

2. *Where wastewater is required to be tankered off site; the final disposal location shall not be to any wastewater treatment plant held under Hamilton City Council jurisdiction.*
 3. *A Spill Response Management Plan for the dangerous goods facility is required prior to operating the facility. A spill containment network is provided at site by way of a recessed floor within the dangerous goods building, and two catchpits located within the breezeway. Should a spill occur, then the material will be collected by a licensed operator and disposed off-site at an approved facility.*
21. I believe these consent conditions will provide certainty to Council and the users of the Site that wastewater and trade waste can be removed to an approved licensed facility.

WATER SUPPLY

22. The proposal relies on private water storage tanks at Site for the supply of potable water.
23. Currently there is no water connection to the Council public reticulation.
24. The development does not seek a connection to the Hamilton City Council public water network.
25. Rainwater harvesting and/or tanker-supplied water during dry periods is very common in New Zealand for areas outside municipal supply. Each development warehouse would be responsible for providing a water tank and small onsite treatment system to ensure potable water to staff. Water treatment would typically consist of filters and UV treatment and a similar size to that of a system serving a house.
26. Each warehouse/office will have their own allocated water tank, and these are indicated on the Site plan.
27. I do not consider this methodology to be a significant health risk and have consented similar schemes in the past with no reported issues.
28. Safety measures such as maintenance contracts and licensed suppliers will be required.

29. For these types of developments, I would also recommend installing low use facilities such as: dual flush (6/3) toilets, aerated taps (6 L/min), and no garbage in-sink grinders.
30. There are two practical options available for the supply of water for the development. These are rainwater harvesting and water trucked into Site:
- 30.1 Option 1 - Rainwater Harvesting as detailed in the Engineering Report.¹ Historical Waikato rainfall data from the National Institute of Atmospheric Research (**NIWA**) shows that the annual rainfall is lowest in February with 69mm. If, for example, we looked at Warehouse 2 with 5 staff and therefore a water demand of 6,200 L per month. In this case, development plans show an approximate roof area of 626 m², so assuming a 75% water capture, this corresponds to an available monthly volume of 32,400 L. Therefore, I expect the water demand will be supplied by rainfall events. A water truck would only be required where there is an extreme period of very low rainfall or long periods between rainfall events, i.e., greater than 50 days.
- 30.2 Option 2 - Tanker Supplied Water. This would be a potable water supply by water truck, delivering water to the individual site tanks. I expect traffic movements to be very low and this can be calculated based on expected staff numbers. Based on a total of 40 staff for the overall development, I expect on average each unit will require a tanker re-fill as detailed in the following table which is based on a 10,000 L water tank. Traffic from water-tanker trucks is expected to be very low. The evidence of Judith Makinson discusses traffic movements in further detail.

¹ Stiffe Hooker Limited *Engineering Infrastructure Report for 16A Wickham Street, Hamilton* dated 20 February 2023, at 6.3.

Site	Staff No.	Usage (L/person/day)	Usage (L/day)	Days between Fills
Wattyl	20	40	800	12
Warehouse 1	10	40	400	25
Warehouse 2	5	40	200	50
Warehouse 3	5	40	200	50

31. Rainwater harvesting tanks will also reduce the stormwater runoff from the Site and this has not been factored into the stormwater detention calculations and stormwater consent granted by the Waikato Regional Council.
32. I consider rainwater harvesting to be the best practicable option for the Site. The consent condition (1) recommended above also addresses the requirement for the water system to be designed and constructed in general accordance with the consented plans and submitted to the Council for approval. I believe this condition of consent will provide certainty to Council and the users of the Site that potable water can be provided to the Site offices.

STORMWATER

33. Stormwater detention and treatment for the proposed development has been designed in accordance with the Waikato Regional Council Technical Report,² and submitted to Waikato Regional Council for a stormwater consent.
34. Large underground pipes at the Site will provide stormwater attenuation to ensure post development peak flows do not exceed pre-development peak flows for the 2-year and 10-year storm events, including an allowance for climate change.

² Waikato Regional Council Technical Report dated July 2020.

35. A two-stage water quality treatment system is proposed for the pavement areas of the Site. The stormwater treatment will be provided using catchpits fitted with gross pollutant traps, and then proprietary cartridge filter treatment devices.
36. The Waikato Regional Council have approved a stormwater discharge consent for the Site.³The Waikato Regional Council have noted in their assessment that the development is likely to be an improvement in land use in respect to both stormwater quality and quantity discharges.
37. I agree with the Waikato Regional Council assessment that the proposed stormwater mitigation for the site will provide a benefit to the receiving environment.
38. I have also recommended a resource consent condition below to provide for the stormwater system.

Proposed conditions of consent

39. It is proposed to provide the following condition of consent:

All stormwater will be managed in accordance with plans and information prepared by Stiffe Hooker Limited and in conjunction with the approved discharge permit from Waikato Regional Council (AUTH105279.01.01).

40. I believe this condition of consent will provide certainty to Council that the stormwater discharge quality will be less than minor and be a benefit to the receiving environment when compared to the existing land use.

SECTION 42A REPORT

41. I have read the report prepared by the Council pursuant to section 42A of the RMA (the **s42A Report**).⁴
42. I note that Section 10.15 of the s42A Report states that the Council's Development Engineer has reviewed the application and is in support of the proposed servicing, subject to conditions of consent for detailed

³ Waikato Regional Council Resource Consent AUTH145540.01.01 dated 17 October 2023.

⁴ Waipa District Council Section 42A Hearing Report (File Reference LU/0038/23) dated 24 October 2023.

design and construction. I consider that this has been adequately provided for in the proposed conditions above.

43. I agree with the conclusion in the s42A Report at 10.16 that the effects of the development can be appropriately mitigated in respect of water, wastewater and stormwater.

SUMMARY OF EVIDENCE

44. Wastewater discharge from the development can be temporarily stored on Site and removed to a licensed facility by licensed contractors.
45. Water supply for the development can be provided either by rainwater harvesting, tanker-supplied water, or a combination of both.
46. Stormwater attenuation, treatment and discharge from the development has been designed to ensure the effects to the environment are less than minor. A stormwater discharge permit application has been approved and consented by the Waikato Regional Council (AUTH105279.01.01).
47. The section 42A Report is supportive of the development in respect to the three waters services, subject to consent conditions.
48. I have supplied draft consent conditions within my evidence.

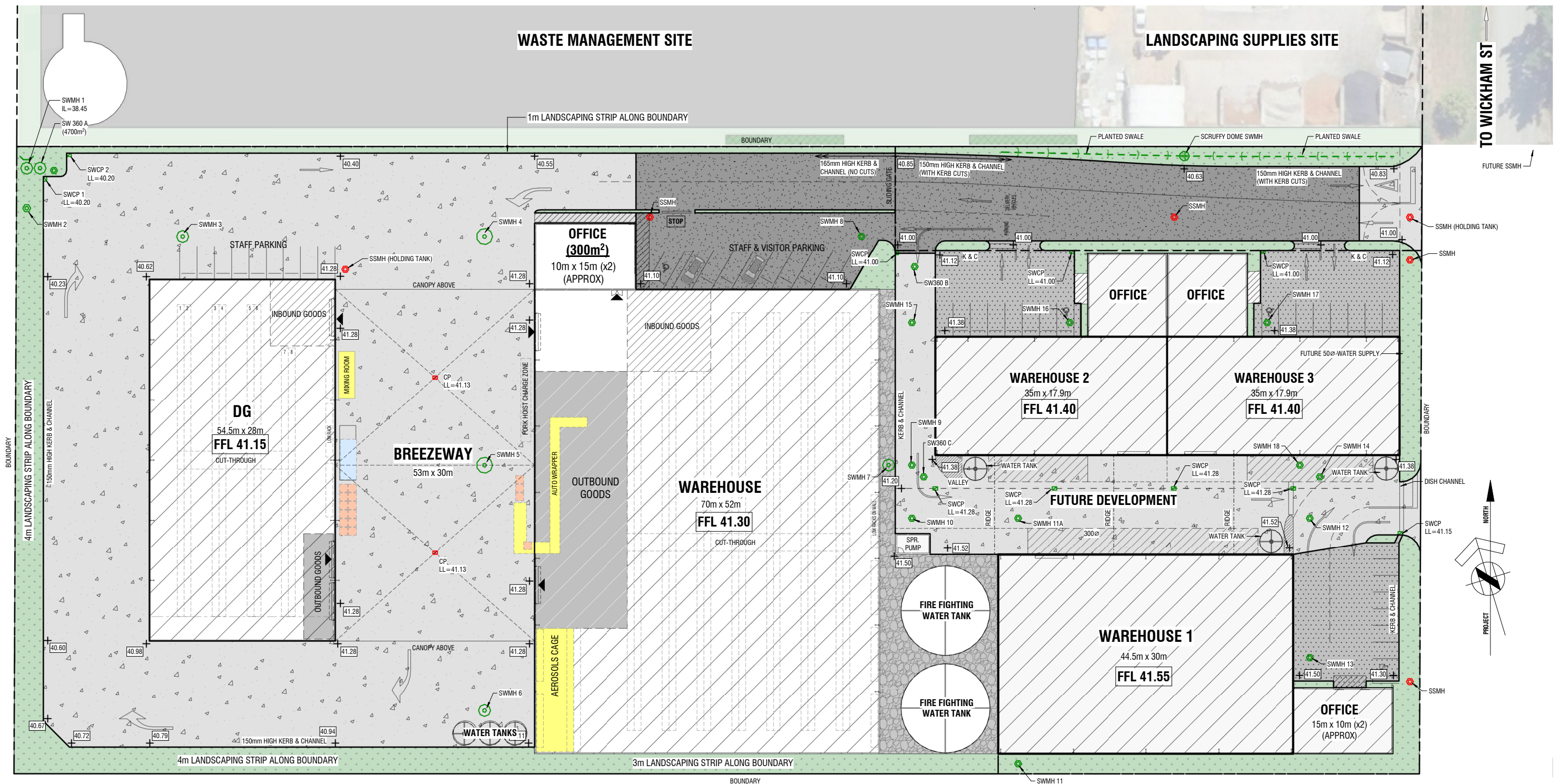
Adair Brimelow

Dated 8 November 2023.

APPENDIX A – SITE PLANS

WASTE MANAGEMENT SITE

LANDSCAPING SUPPLIES SITE



FUTURE DEVELOPMENT SITE

SITE FINISHES LEGEND

LANDSCAPED / GRASSED AREA	
150 THK. REINFORCED CONCRETE SLAB ON GAP40 BASECOURSE	
50mm THK. AC14 ON GAP40 BASECOURSE	
25mm THK. AC10 ON GAP40 BASECOURSE	
METALLED AREA - EXISTING / NEW COMPACTED BASECOURSE	

PROPOSED SITE PLAN
SCALE @ A1 1 : 300

SITE AREAS SCHEDULE - POST-DEVELOPMENT (m²)

FINISHES / SITES	WATTYL DEVELOPMENT	FUTURE DEVELOPMENT	SHARED DRIVEWAY	TOTAL
PERMEABLE AREAS: LANDSCAPING	1,106	465	261	1,832
SEMI-IMPERMEABLE AREAS: COMPACTED METAL	628	0	0	628
IMPERMEABLE AREAS: PERMANENT BUILDINGS	6,926	3,037	0	9,963
IMPERMEABLE AREAS: PAVEMENT / HARDSTAND	4,392	2,214	977	7,583
TOTAL	13,052	5,716	1,238	20,006

3	03-11-2023	RC - Fire water tanks added, future development relocated offices
2	29-06-2023	RC - South & West Landscaping Strip Widened
1	21-03-2023	Resource Consent

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PROJECT
PROPOSED DEVELOPMENT AT 16A WICKHAM STREET-WEST

FOR
STRIDE PROPERTY

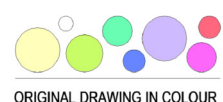
DRAWING
PROPOSED SITE & FINISHED LEVELS PLAN

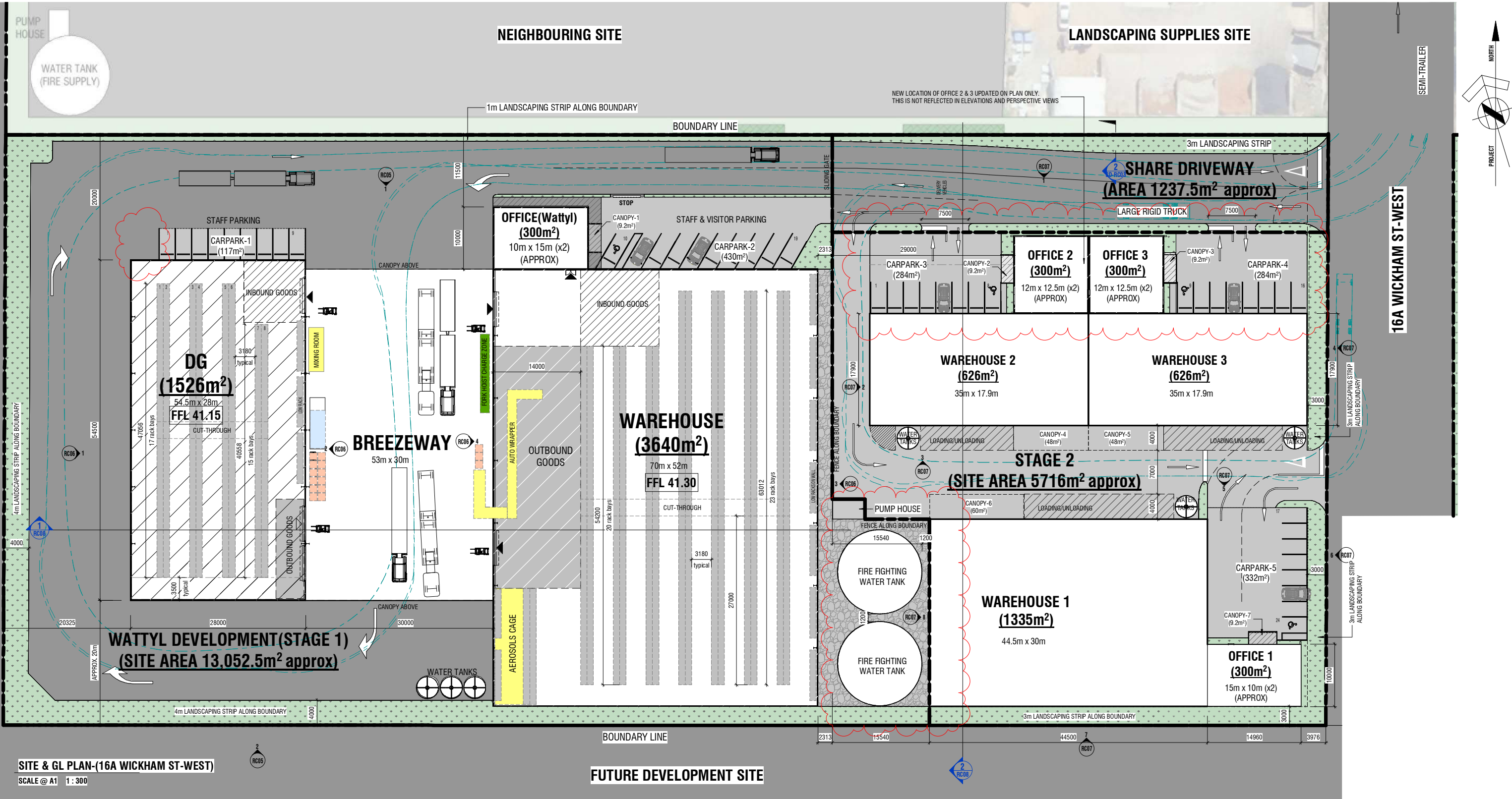
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JOB NO
10368

SCALE AT A1 As indicated SHEET
SCALE AT A3 **SD-RC02 3**

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SITE & GL PLAN-(16A WICKHAM ST-WEST)

SCALE @ A1 1:300

FUTURE DEVELOPMENT SITE

LOT DESCRIPTION	
16A WICKHAM STREET-WEST, HAMILTON	
LOT 1 - DP 396081	
SITE INFORMATION	
TOTAL SITE AREA:	20,006.5 m ²
AREA	SITE COVERAGE
TOTAL BUILDING AREA:	10,150.8m ² (50.7%)
TOTAL IMPERMEABLE AREA:	7,691.7m ² (38.5%)
TOTAL PERMEABLE AREA:	2,164m ² (10.8%)

WATTYL DEVELOPMENT (STAGE 1)		
SITE AREA	13,052.5 m ²	
CARPARK SCHEDULE		
CARPARK-1	9 SPACES	117m ²
CARPARK-2	10 SPACES	430m ²
TOTAL CARPARKS	19	547m²
CANOPY 1	9.2m ²	
BREEZEWAY	1590m ²	
GROSS FLOOR AREAS		
WAREHOUSE	3,640m ²	
OFFICE	300m ²	
DANGEROUS GOODS	1,526m ²	
PUMP HOUSE	15.0m ²	
TOTAL	5,481m²	

STAGE 2		
SITE AREA	5,716m ²	
CARPARK SCHEDULE		
CARPARK-3	8 SPACES	284m ²
CARPARK-4	8 SPACES	284m ²
CARPARK-5	8 SPACES	332m ²
TOTAL CARPARKS	24 SPACES	900m²
CANOPY 2	9.2m ²	
CANOPY 3	9.2m ²	
CANOPY 4	48m ²	
CANOPY 5	48m ²	
CANOPY 6	60m ²	
CANOPY 7	9.2m ²	
TOTAL	183.6m²	
GROSS FLOOR AREAS		
WAREHOUSE 1	1,335m ²	
OFFICE 1	300m ²	
TOTAL	1,635m²	
WAREHOUSE 2	626m ²	
OFFICE 2	300m ²	
TOTAL	926m²	
WAREHOUSE 3	626m ²	
OFFICE 3	300m ²	
TOTAL	926m²	

SHARE DRIVEWAY	
AREA	1237.5 m ²

2	03-11-2023	RC - Fire water tanks added, future development allocated offices
1	21-03-2023	Resource Consent
REV	DATE	DESCRIPTION

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PROJECT
 PROPOSED DEVELOPMENT AT 16A WICKHAM STREET-WEST

FOR
 STRIDE PROPERTY

DRAWING
 PROPOSED SITE & GL PLAN-(16A WICKHAM ST-WEST)

CAD FILE
 1:1000 - stiffe hooker - Wattyl Development Wickham DP Rev 03/2023 -
 Wattyl Development - Wickham Street - Central - v22 - mixed
 2023/01/01/01
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SCALE AT A1 As indicated SHEET REV
RC03 2

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