

Certificate of Acceptance of new water and/or wastewater assets

Watercare reference number:

| | | | | | | | |
|---|---|---|---|---|--|--|--|
| 8 | 5 | 2 | 4 | 4 | | | |
|---|---|---|---|---|--|--|--|

Auckland Council EPA number:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|--|--|
| 6 | 0 | 3 | 1 | 9 | 5 | 5 | 4 | | |
|---|---|---|---|---|---|---|---|--|--|

Site details

Job name: Milldale Stage 2C - water & wastewater only

Legal site address: Street number 157 Street name GRAND DRIVE

Suburb OREWA Postcode 0931

Lot number Deposited plan (DP) number Certificate of Title (CT) number

Stage/s that relates to this certificate STAGE 2C

Certification statement

Watercare has received the following documentation:

As-built (PDF)
 As-built CAD (DWG)
 Watercare Schedule of assets
 CS3
 CS4

This Watercare Certificate of Acceptance is issued with respect to all aspects of the engineering water and/or wastewater works covered by the above engineering plan approval and to satisfy Auckland Council's engineering approval completion certificate.

The assets have been connected correctly to the existing public networks.

The total value of these assets to be vested to Auckland Council is: \$ 947,525.61

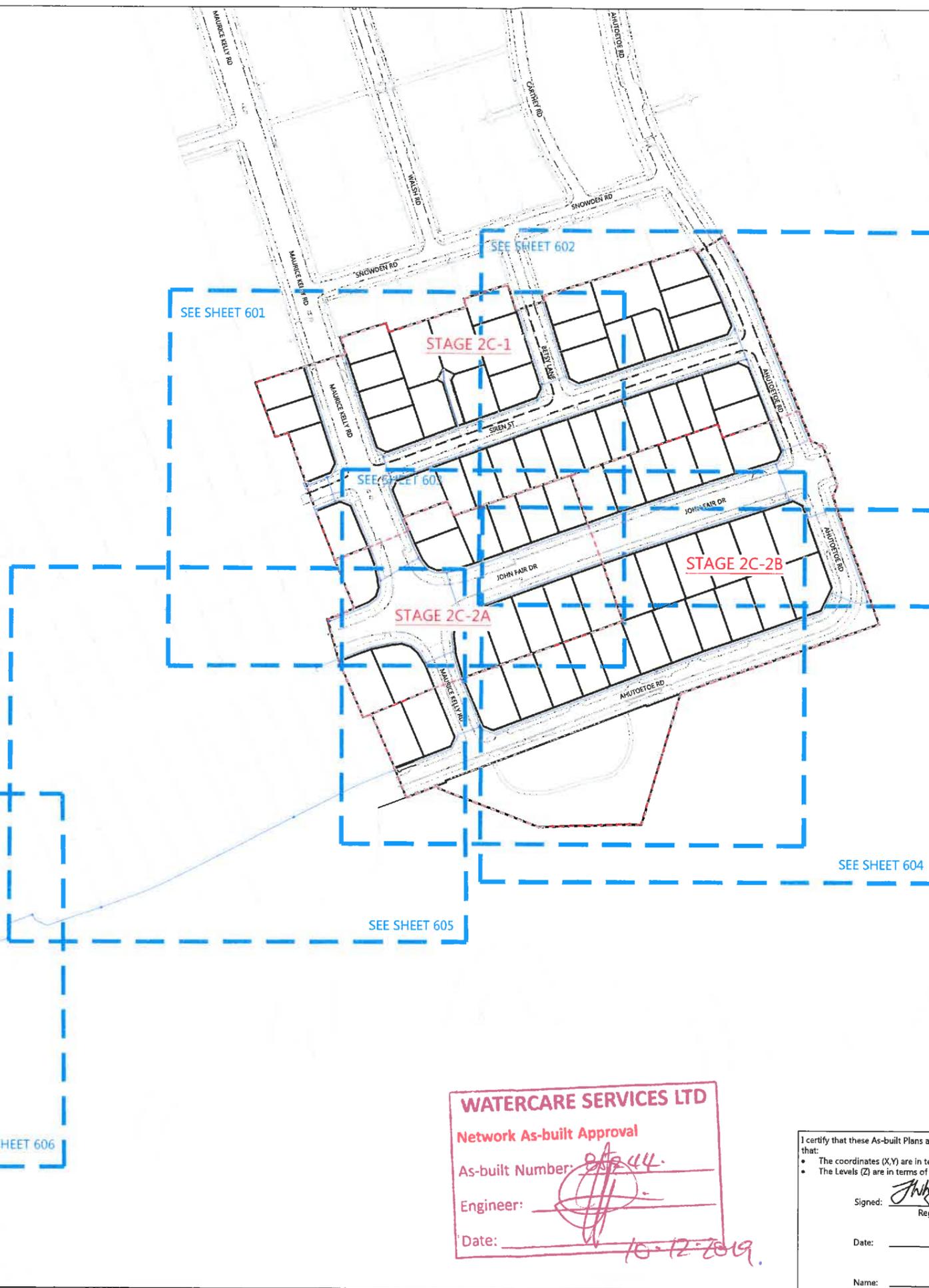
Watercare representative

Full name MICHAEL Toki Signature 

Date 10 12 2019.

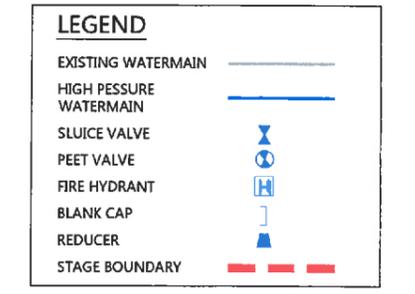


| SCHEDULE OF COORDINATES | | | SCHEDULE OF COORDINATES | | |
|-------------------------|------------|------------|-------------------------|------------|------------|
| NAME | EASTING | NORTHING | NAME | EASTING | NORTHING |
| SLUICE VALVES | | | FIRE HYDRANTS | | |
| SV 01 | 1748247.45 | 5946497.56 | FH 01 | 1748361.28 | 5946540.53 |
| SV 02 | 1748252.22 | 5946485.04 | FH 02 | 1748496.09 | 5946552.36 |
| SV 03 | 1748251.72 | 5946484.88 | FH 03 | 1748249.10 | 5946419.44 |
| SV 04 | 1748277.36 | 5946509.71 | FH 04 | 1748429.32 | 5946486.14 |
| SV 05 | 1748277.57 | 5946508.97 | FH 05 | 1748330.64 | 5946362.85 |
| SV 06 | 1748277.76 | 5946509.43 | FH 06 | 1748427.57 | 5946392.86 |
| SV 07 | 1748281.71 | 5946495.96 | FH 07 | 1748542.26 | 5946431.60 |
| SV 08 | 1748364.03 | 5946548.82 | FH 08 | 1748229.79 | 5946312.25 |
| SV 09 | 1748364.21 | 5946549.27 | FH 09 | 1748124.16 | 5946262.42 |
| SV 10 | 1748376.97 | 5946553.99 | FH 10 | 1748006.51 | 5946221.96 |
| SV 11 | 1748377.14 | 5946553.46 | FH 11 | 1747948.22 | 5946188.98 |
| SV 12 | 1748468.80 | 5946580.24 | FH 12 | 1747902.13 | 5946161.92 |
| SV 13 | 1748469.03 | 5946580.57 | FH 13 | 1748257.76 | 5946560.28 |
| SV 14 | 1748469.23 | 5946580.04 | FH 14 | 1748451.70 | 5946617.96 |
| SV 15 | 1748276.05 | 5946442.55 | PEET VALVES | | |
| SV 16 | 1748276.21 | 5946441.49 | PV 01 | 1748247.03 | 5946497.80 |
| SV 17 | 1748276.51 | 5946441.91 | PV 02 | 1748247.76 | 5946498.01 |
| SV 18 | 1748296.56 | 5946454.40 | PV 03 | 1748282.14 | 5946496.81 |
| SV 19 | 1748297.07 | 5946453.41 | PV 04 | 1748363.77 | 5946549.50 |
| SV 20 | 1748312.56 | 5946446.30 | PV 05 | 1748475.01 | 5946563.72 |
| SV 21 | 1748312.33 | 5946445.94 | PV 06 | 1748475.54 | 5946563.41 |
| SV 22 | 1748319.67 | 5946423.24 | PV 07 | 1748320.29 | 5946423.51 |
| SV 23 | 1748491.52 | 5946506.64 | PV 08 | 1748495.38 | 5946514.45 |
| SV 24 | 1748491.82 | 5946506.41 | PV 09 | 1748498.78 | 5946486.79 |
| SV 25 | 1748495.52 | 5946513.75 | PV 10 | 1748300.85 | 5946397.02 |
| SV 26 | 1748495.77 | 5946514.13 | | | |
| SV 27 | 1748499.42 | 5946487.02 | | | |
| SV 28 | 1748248.65 | 5946419.27 | | | |
| SV 29 | 1748316.25 | 5946402.71 | | | |
| SV 30 | 1748330.80 | 5946362.48 | | | |
| SV 31 | 1748331.04 | 5946361.92 | | | |
| SV 32 | 1748330.61 | 5946362.12 | | | |
| SV 33 | 1748522.73 | 5946436.10 | | | |
| SV 34 | 1748086.52 | 5946258.59 | | | |
| SV 35 | 1748086.33 | 5946258.19 | | | |
| SV 36 | 1748086.75 | 5946258.03 | | | |
| SV 37 | 1747902.91 | 5946162.35 | | | |
| SV 38 | 1747902.50 | 5946162.15 | | | |
| SV 39 | 1747908.97 | 5946150.69 | | | |
| SV40 | 1748461.44 | 5946630.80 | | | |



| SCHEDULE OF COORDINATES | | |
|-------------------------|------------|------------|
| NAME | EASTING | NORTHING |
| HOUSE CONNECTIONS | | |
| WM 655 | 1748261.82 | 5946426.25 |
| WM 666 | 1748299.14 | 5946345.38 |
| WM 667 | 1748300.55 | 5946345.85 |
| WM 668 | 1748321.76 | 5946387.78 |
| WM 669 | 1748370.12 | 5946372.50 |
| WM 670 | 1748371.56 | 5946372.91 |
| WM 671 | 1748401.28 | 5946384.48 |
| WM 672 | 1748402.67 | 5946384.97 |
| WM 673 | 1748434.81 | 5946397.30 |
| WM 674 | 1748436.23 | 5946397.75 |
| WM 675 | 1748467.42 | 5946409.28 |
| WM 676 | 1748468.72 | 5946409.68 |
| WM 677 | 1748502.64 | 5946421.56 |
| WM 678 | 1748503.93 | 5946422.13 |
| WM 679 | 1748485.21 | 5946480.83 |
| WM 680 | 1748483.87 | 5946480.30 |
| WM 681 | 1748448.89 | 5946468.77 |
| WM 682 | 1748447.56 | 5946468.35 |
| WM 683 | 1748415.49 | 5946457.25 |
| WM 684 | 1748414.16 | 5946456.80 |
| WM 685 | 1748381.00 | 5946445.19 |
| WM 686 | 1748379.58 | 5946444.71 |
| WM 687 | 1748348.05 | 5946433.38 |
| WM 688 | 1748346.78 | 5946432.84 |
| WM 689 | 1748321.15 | 5946389.12 |
| WM 690 | 1748272.07 | 5946404.08 |
| WM 691 | 1748270.50 | 5946403.61 |
| WM 692 | 1748263.12 | 5946426.72 |
| WM 693 | 1748242.02 | 5946479.30 |
| WM 694 | 1748236.66 | 5946495.45 |
| WM 695 | 1748239.79 | 5946541.55 |
| WM 696 | 1748239.33 | 5946542.85 |
| WM 697 | 1748259.32 | 5946560.01 |
| WM 698 | 1748264.18 | 5946545.03 |
| WM 699 | 1748264.59 | 5946543.71 |
| WM 700 | 1748269.43 | 5946528.88 |
| WM 701 | 1748316.58 | 5946525.92 |
| WM 702 | 1748309.18 | 5946557.16 |
| WM 703 | 1748310.56 | 5946557.52 |
| WM 704 | 1748340.22 | 5946534.50 |
| WM 705 | 1748358.62 | 5946560.91 |
| WM 706 | 1748358.15 | 5946562.24 |
| WM 707 | 1748349.20 | 5946589.77 |
| WM 708 | 1748349.61 | 5946588.02 |
| WM 709 | 1748366.06 | 5946593.91 |
| WM 710 | 1748374.30 | 5946567.68 |
| WM 711 | 1748374.75 | 5946566.28 |
| WM 712 | 1748419.83 | 5946562.24 |
| WM 713 | 1748438.14 | 5946568.33 |
| WM 714 | 1748421.14 | 5946562.69 |
| WM 715 | 1748454.99 | 5946609.32 |
| WM 716 | 1748455.61 | 5946608.11 |
| WM 717 | 1748439.47 | 5946568.75 |
| WM 718 | 1748451.93 | 5946554.93 |
| WM 719 | 1748487.43 | 5946530.12 |
| WM 720 | 1748487.98 | 5946528.67 |
| WM 721 | 1748452.73 | 5946495.60 |
| WM 722 | 1748451.31 | 5946495.19 |
| WM 723 | 1748423.04 | 5946485.31 |
| WM 724 | 1748421.52 | 5946484.85 |
| WM 725 | 1748389.65 | 5946473.78 |
| WM 726 | 1748388.29 | 5946473.36 |
| WM 727 | 1748359.07 | 5946462.82 |
| WM 728 | 1748357.76 | 5946462.39 |
| WM 729 | 1748327.92 | 5946451.32 |
| WM 730 | 1748326.55 | 5946450.92 |
| WM 731 | 1748288.85 | 5946475.52 |
| WM 732 | 1748288.33 | 5946476.86 |
| WM 733 | 1748318.48 | 5946508.46 |
| WM 734 | 1748319.76 | 5946508.94 |
| WM 735 | 1748347.85 | 5946519.13 |
| WM 736 | 1748349.24 | 5946519.65 |
| WM 737 | 1748377.49 | 5946529.72 |
| WM 738 | 1748378.79 | 5946530.18 |
| WM 739 | 1748407.22 | 5946539.98 |
| WM 740 | 1748408.50 | 5946540.39 |
| WM 741 | 1748436.89 | 5946549.92 |
| WM 742 | 1748450.59 | 5946554.50 |

- NOTES**
- ALL WORK AND MATERIALS COMPLIES WITH AC STANDARD FOR ENGINEERING DESIGN AND CONSTRUCTION.
 - PIPE BEDDING COMPLIES WITH AC STD DETAIL DRAWING 18000 SHEET 4.4 UNLESS OTHERWISE NOTED.
 - WATERMAINS ARE AN AVERAGE 0.6m BELOW GROUND IN BERMS AND 0.9m BELOW GROUND UNDER ROADS. HARDFILL BACKFILLED BENEATH ROAD CROSSINGS.
 - ALL PIPES ARE LAID 1.4m OFF THE ROAD RESERVE BOUNDARY IN THE COMMON SERVICE TRENCH.
 - PIPE SIZES SHOWN ARE EXTERNAL DIAMETER.
 - LOT BOUNDARIES ARE SUBJECT TO FINAL SURVEY.
 - ASBUILT DATA HAS BEEN SOURCED FROM A COMBINATION OF WOODS SURVEY MEASURED DATA AND CONTRACTOR RECEIVED DATA.



| REVISION DETAILS | | BY | DATE |
|------------------|------------------------|----|----------|
| 1 | ISSUED FOR INFORMATION | KR | 17/10/19 |
| 2 | ISSUED FOR 224c | KR | 4/11/19 |

| | | |
|----------|-------|--|
| SURVEYED | WOODS | WOODS Ltd LEVEL 1 BUILDING B 8 NUGENT STREET, GRAFTON AUCKLAND 1023 09 308 9229 WOODS.CO.NZ |
| DESIGNED | TB | |
| DRAWN | SK | |
| CHECKED | BO | |
| APPROVED | JW | |



MILDALE
STAGE 2C
WATERMAIN ASBUILT
LAYOUT PLAN
SHEET 1 OF 7

| | | |
|---------|--------------------|-----|
| STATUS | AS-BUILT | REV |
| SCALE | 1 : 2500 @ A3 | 2 |
| COUNCIL | AUCKLAND COUNCIL | |
| DWG NO | P18-006-02C-600-AB | |

WATERCARE SERVICES LTD
Network As-built Approval
As-built Number: 81944
Engineer: [Signature]
Date: 10.12.2019

I certify that these As-built Plans are an accurate record of the works undertaken and that:
 • The coordinates (X,Y) are in terms of NZTM on NZGD2000
 • The Levels (Z) are in terms of Auckland Vertical Datum 1946 (MSL) LINZ datum

Signed: [Signature]
Registered Professional Surveyor
Date: 06/11/2019
Name: JAMIE WHYTE

I certify that these As-built Plans are an accurate record of the works undertaken and that:

- The coordinates (X,Y) are in terms of NZTM on NZGD2000
- The Levels (Z) are in terms of Auckland Vertical Datum 1946 (MSL) LINZ datum

Signed: 
Registered Professional Surveyor
Date: 06/11/19
Name: JAMIE WHYTE

WATERCARE SERVICES LTD
Network As-built Approval
As-built Number: 8.5244
Engineer: 
Date: 16/12/2019

SCHEDULE OF COORDINATES

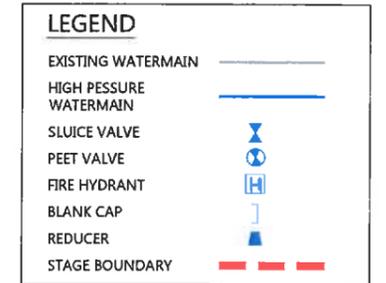
| NAME | EASTING | NORTHING |
|-------------------|------------|------------|
| HOUSE CONNECTIONS | | |
| WM 655 | 1748261.82 | 5946426.25 |
| WM 666 | 1748299.14 | 5946345.38 |
| WM 667 | 1748300.55 | 5946345.85 |
| WM 668 | 1748321.76 | 5946387.78 |
| WM 669 | 1748370.12 | 5946372.50 |
| WM 670 | 1748371.56 | 5946372.91 |
| WM 671 | 1748401.28 | 5946384.48 |
| WM 672 | 1748402.67 | 5946384.97 |
| WM 673 | 1748434.81 | 5946397.30 |
| WM 674 | 1748436.23 | 5946397.75 |
| WM 675 | 1748467.42 | 5946409.28 |
| WM 676 | 1748468.72 | 5946409.68 |
| WM 677 | 1748502.64 | 5946421.56 |
| WM 678 | 1748503.93 | 5946422.13 |
| WM 679 | 1748485.21 | 5946480.83 |
| WM 680 | 1748483.87 | 5946480.30 |
| WM 681 | 1748448.89 | 5946468.77 |
| WM 682 | 1748447.56 | 5946468.35 |
| WM 683 | 1748415.49 | 5946457.25 |
| WM 684 | 1748414.16 | 5946456.80 |
| WM 685 | 1748381.00 | 5946445.19 |
| WM 686 | 1748379.58 | 5946444.71 |
| WM 687 | 1748348.05 | 5946433.38 |
| WM 688 | 1748346.78 | 5946432.84 |
| WM 689 | 1748321.15 | 5946389.12 |
| WM 690 | 1748272.07 | 5946404.08 |
| WM 691 | 1748270.50 | 5946403.61 |
| WM 692 | 1748263.12 | 5946426.72 |
| WM 693 | 1748242.02 | 5946479.30 |
| WM 694 | 1748236.66 | 5946495.45 |
| WM 695 | 1748239.79 | 5946541.55 |
| WM 696 | 1748239.33 | 5946542.85 |
| WM 697 | 1748259.32 | 5946560.01 |
| WM 698 | 1748264.18 | 5946545.03 |
| WM 699 | 1748264.59 | 5946543.71 |
| WM 700 | 1748269.43 | 5946528.88 |
| WM 701 | 1748316.58 | 5946525.92 |
| WM 702 | 1748309.18 | 5946557.16 |
| WM 703 | 1748310.56 | 5946557.52 |
| WM 704 | 1748340.22 | 5946534.50 |
| WM 705 | 1748358.62 | 5946560.91 |
| WM 706 | 1748358.15 | 5946562.24 |
| WM 707 | 1748349.20 | 5946589.77 |
| WM 708 | 1748349.61 | 5946588.02 |
| WM 709 | 1748366.06 | 5946593.91 |
| WM 710 | 1748374.30 | 5946567.68 |
| WM 711 | 1748374.75 | 5946566.28 |
| WM 712 | 1748419.83 | 5946562.24 |
| WM 713 | 1748438.14 | 5946568.33 |
| WM 714 | 1748421.14 | 5946562.69 |
| WM 715 | 1748454.99 | 5946609.32 |
| WM 716 | 1748455.61 | 5946608.11 |
| WM 717 | 1748439.47 | 5946568.75 |
| WM 718 | 1748451.93 | 5946554.93 |
| WM 719 | 1748487.43 | 5946530.12 |
| WM 720 | 1748487.98 | 5946528.67 |
| WM 721 | 1748452.73 | 5946495.60 |
| WM 722 | 1748451.31 | 5946495.19 |
| WM 723 | 1748423.04 | 5946485.31 |
| WM 724 | 1748421.52 | 5946484.85 |
| WM 725 | 1748389.65 | 5946473.78 |
| WM 726 | 1748388.29 | 5946473.36 |
| WM 727 | 1748359.07 | 5946462.82 |
| WM 728 | 1748357.76 | 5946462.39 |
| WM 729 | 1748327.92 | 5946451.32 |
| WM 730 | 1748326.55 | 5946450.92 |
| WM 731 | 1748288.85 | 5946475.52 |
| WM 732 | 1748288.33 | 5946476.86 |
| WM 733 | 1748318.48 | 5946508.46 |
| WM 734 | 1748319.76 | 5946508.94 |
| WM 735 | 1748347.85 | 5946519.13 |
| WM 736 | 1748349.24 | 5946519.65 |
| WM 737 | 1748377.49 | 5946529.72 |
| WM 738 | 1748378.79 | 5946530.18 |
| WM 739 | 1748407.22 | 5946539.98 |
| WM 740 | 1748408.50 | 5946540.39 |
| WM 741 | 1748436.89 | 5946549.92 |
| WM 742 | 1748450.59 | 5946554.50 |

SCHEDULE OF COORDINATES

| NAME | EASTING | NORTHING |
|---------------|------------|------------|
| SLUICE VALVES | | |
| SV 01 | 1748247.45 | 5946497.56 |
| SV 02 | 1748252.22 | 5946485.04 |
| SV 03 | 1748251.72 | 5946484.88 |
| SV 04 | 1748277.36 | 5946509.71 |
| SV 05 | 1748277.57 | 5946508.97 |
| SV 06 | 1748277.76 | 5946509.43 |
| SV 07 | 1748281.71 | 5946495.96 |
| SV 08 | 1748364.03 | 5946548.82 |
| SV 09 | 1748364.21 | 5946549.27 |
| SV 10 | 1748376.97 | 5946553.99 |
| SV 11 | 1748377.14 | 5946553.46 |
| SV 12 | 1748468.80 | 5946580.24 |
| SV 13 | 1748469.03 | 5946580.57 |
| SV 14 | 1748469.23 | 5946580.04 |
| SV 15 | 1748276.05 | 5946442.55 |
| SV 16 | 1748276.21 | 5946441.49 |
| SV 17 | 1748276.51 | 5946441.91 |
| SV 18 | 1748296.56 | 5946454.40 |
| SV 19 | 1748297.07 | 5946453.41 |
| SV 20 | 1748312.56 | 5946446.30 |
| SV 21 | 1748312.33 | 5946445.94 |
| SV 22 | 1748319.67 | 5946423.24 |
| SV 23 | 1748491.52 | 5946506.64 |
| SV 24 | 1748491.82 | 5946506.41 |
| SV 25 | 1748495.52 | 5946513.75 |
| SV 26 | 1748495.77 | 5946514.13 |
| SV 27 | 1748499.42 | 5946487.02 |
| SV 28 | 1748248.65 | 5946419.27 |
| SV 29 | 1748316.25 | 5946402.71 |
| SV 30 | 1748330.80 | 5946362.48 |
| SV 31 | 1748331.04 | 5946361.92 |
| SV 32 | 1748330.61 | 5946362.12 |
| SV 33 | 1748522.73 | 5946436.10 |
| SV 34 | 1748086.52 | 5946258.59 |
| SV 35 | 1748086.33 | 5946258.19 |
| SV 36 | 1748086.75 | 5946258.03 |
| SV 37 | 1747902.91 | 5946162.35 |
| SV 38 | 1747902.50 | 5946162.15 |
| SV 39 | 1747908.97 | 5946150.69 |
| SV 40 | 1748461.44 | 5946630.80 |



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 - PIPE BEDDING COMPLIES WITH AC STD DETAIL DRAWING 18000 SHEET 4.4 UNLESS OTHERWISE NOTED.
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REVISION DETAILS

| NO | DESCRIPTION | BY | DATE |
|----|------------------------|----|----------|
| 1 | ISSUED FOR INFORMATION | KR | 17/10/19 |
| 2 | ISSUED FOR 224c | KR | 4/11/19 |

| | | |
|----------|-------|--|
| SURVEYED | WOODS | WOODS Ltd LEVEL 1 BUILDING B 8 NUGENT STREET, GRAFTON AUCKLAND 1023 09 308 9229 WOODS.CO.NZ |
| DESIGNED | TB | |
| DRAWN | SK | |
| CHECKED | BO | |
| APPROVED | JW | |



**MILLDALE
STAGE 2C
WATERMAIN
ASBUILT PLAN
SHEET 2 OF 7**

| | | |
|---------|--------------------|-----|
| STATUS | AS-BUILT | REV |
| SCALE | 1 : 750 @ A3 | 2 |
| COUNCIL | AUCKLAND COUNCIL | |
| DWG NO | P18-006-02C-601-AB | |

SCHEDULE OF COORDINATES

| NAME | EASTING | NORTHING |
|---------------|------------|------------|
| FIRE HYDRANTS | | |
| FH 01 | 1748361.28 | 5946540.53 |
| FH 02 | 1748496.09 | 5946552.36 |
| FH 03 | 1748249.10 | 5946419.44 |
| FH 04 | 1748429.32 | 5946486.14 |
| FH 05 | 1748330.64 | 5946362.85 |
| FH 06 | 1748427.57 | 5946392.86 |
| FH 07 | 1748542.26 | 5946431.60 |
| FH 08 | 1748229.79 | 5946312.25 |
| FH 09 | 1748124.16 | 5946262.42 |
| FH 10 | 1748006.51 | 5946221.96 |
| FH 11 | 1747948.22 | 5946188.98 |
| FH 12 | 1747902.13 | 5946161.92 |
| FH 13 | 1748257.76 | 5946560.28 |
| FH 14 | 1748451.70 | 5946617.96 |
| PEET VALVES | | |
| PV 01 | 1748247.03 | 5946497.80 |
| PV 02 | 1748247.76 | 5946498.01 |
| PV 03 | 1748282.14 | 5946496.81 |
| PV 04 | 1748363.77 | 5946549.50 |
| PV 05 | 1748475.01 | 5946563.72 |
| PV 06 | 1748475.54 | 5946563.41 |
| PV 07 | 1748320.29 | 5946423.51 |
| PV 08 | 1748495.38 | 5946514.45 |
| PV 09 | 1748498.78 | 5946486.79 |
| PV 10 | 1748300.85 | 5946397.02 |



| SCHEDULE OF COORDINATES | | |
|-------------------------|------------|------------|
| NAME | EASTING | NORTHING |
| FIRE HYDRANTS | | |
| FH 01 | 1748361.28 | 5946540.53 |
| FH 02 | 1748496.09 | 5946552.36 |
| FH 03 | 1748249.10 | 5946419.44 |
| FH 04 | 1748429.32 | 5946486.14 |
| FH 05 | 1748330.64 | 5946362.85 |
| FH 06 | 1748427.57 | 5946392.86 |
| FH 07 | 1748542.26 | 5946431.60 |
| FH 08 | 1748229.79 | 5946312.25 |
| FH 09 | 1748124.16 | 5946262.42 |
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| FH 12 | 1747902.13 | 5946161.92 |
| FH 13 | 1748257.76 | 5946560.28 |
| FH 14 | 1748451.70 | 5946617.96 |
| PEET VALVES | | |
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| PV 02 | 1748247.76 | 5946498.01 |
| PV 03 | 1748282.14 | 5946496.81 |
| PV 04 | 1748363.77 | 5946549.50 |
| PV 05 | 1748475.01 | 5946563.72 |
| PV 06 | 1748475.54 | 5946563.41 |
| PV 07 | 1748320.29 | 5946423.51 |
| PV 08 | 1748495.38 | 5946514.45 |
| PV 09 | 1748498.78 | 5946486.79 |
| PV 10 | 1748300.85 | 5946397.02 |

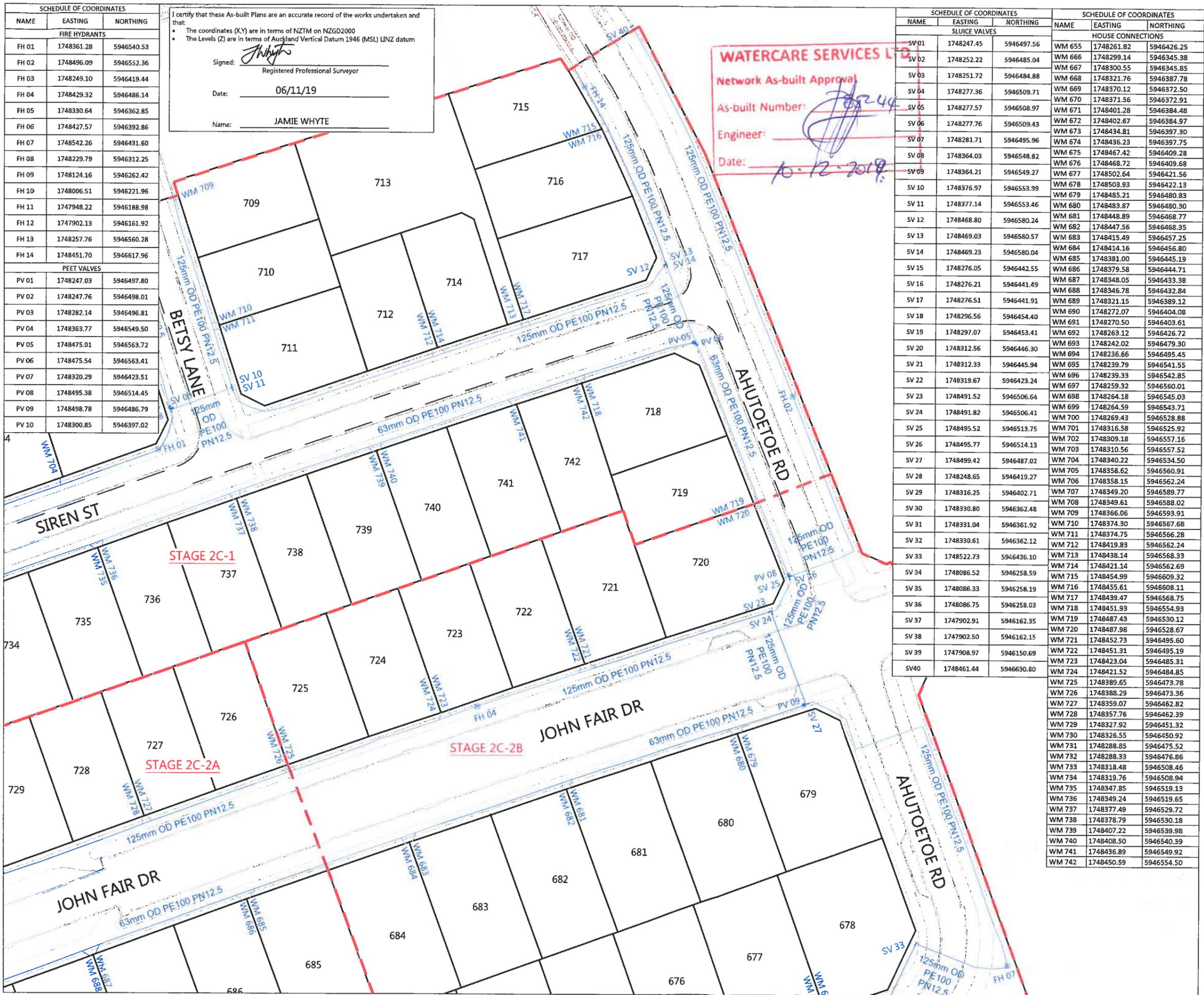
I certify that these As-built Plans are an accurate record of the works undertaken and that:

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- The Levels (Z) are in terms of Auckland Vertical Datum 1946 (MSL) LINZ datum

Signed: 
Registered Professional Surveyor

Date: 06/11/19

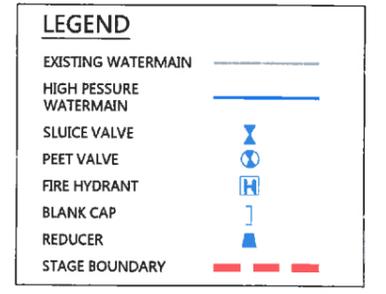
Name: JAMIE WHYTE



WATERCARE SERVICES LTD
Network As-built Approval
As-built Number: 224c
Engineer: 
Date: 10-12-2018

| SCHEDULE OF COORDINATES | | | SCHEDULE OF COORDINATES | | |
|-------------------------|------------|------------|-------------------------|------------|------------|
| NAME | EASTING | NORTHING | NAME | EASTING | NORTHING |
| SLUICE VALVES | | | HOUSE CONNECTIONS | | |
| SV 01 | 1748247.45 | 5946497.56 | WM 655 | 1748261.82 | 5946426.25 |
| SV 02 | 1748252.22 | 5946485.04 | WM 666 | 1748299.14 | 5946345.38 |
| SV 03 | 1748251.72 | 5946484.88 | WM 667 | 1748300.55 | 5946345.85 |
| SV 04 | 1748277.36 | 5946509.71 | WM 668 | 1748321.76 | 5946387.78 |
| SV 05 | 1748277.57 | 5946508.97 | WM 669 | 1748370.12 | 5946372.50 |
| SV 06 | 1748277.76 | 5946509.43 | WM 670 | 1748371.56 | 5946372.91 |
| SV 07 | 1748281.71 | 5946495.96 | WM 671 | 1748401.28 | 5946384.48 |
| SV 08 | 1748364.03 | 5946548.82 | WM 672 | 1748402.67 | 5946384.97 |
| SV 09 | 1748364.21 | 5946549.27 | WM 673 | 1748434.81 | 5946397.30 |
| SV 10 | 1748376.97 | 5946553.99 | WM 674 | 1748436.23 | 5946397.75 |
| SV 11 | 1748377.14 | 5946553.46 | WM 675 | 1748467.42 | 5946409.28 |
| SV 12 | 1748468.80 | 5946580.24 | WM 676 | 1748468.72 | 5946409.68 |
| SV 13 | 1748469.03 | 5946580.57 | WM 677 | 1748502.64 | 5946421.56 |
| SV 14 | 1748469.23 | 5946580.04 | WM 678 | 1748503.93 | 5946422.13 |
| SV 15 | 1748276.05 | 5946442.55 | WM 679 | 1748485.21 | 5946480.83 |
| SV 16 | 1748276.21 | 5946441.49 | WM 680 | 1748483.87 | 5946480.30 |
| SV 17 | 1748276.51 | 5946441.91 | WM 681 | 1748488.89 | 5946468.77 |
| SV 18 | 1748296.56 | 5946454.40 | WM 682 | 1748447.56 | 5946468.35 |
| SV 19 | 1748297.07 | 5946453.41 | WM 683 | 1748415.49 | 5946457.25 |
| SV 20 | 1748312.56 | 5946446.30 | WM 684 | 1748414.16 | 5946456.80 |
| SV 21 | 1748312.33 | 5946445.94 | WM 685 | 1748381.00 | 5946445.19 |
| SV 22 | 1748319.67 | 5946423.24 | WM 686 | 1748379.58 | 5946444.71 |
| SV 23 | 1748491.52 | 5946506.64 | WM 687 | 1748348.05 | 5946433.38 |
| SV 24 | 1748491.82 | 5946506.41 | WM 688 | 1748346.78 | 5946432.84 |
| SV 25 | 1748495.52 | 5946513.75 | WM 689 | 1748321.15 | 5946389.12 |
| SV 26 | 1748495.77 | 5946514.13 | WM 690 | 1748272.07 | 5946404.08 |
| SV 27 | 1748499.42 | 5946487.02 | WM 691 | 1748270.50 | 5946403.61 |
| SV 28 | 1748248.65 | 5946419.27 | WM 692 | 1748263.12 | 5946426.72 |
| SV 29 | 1748316.25 | 5946402.71 | WM 693 | 1748242.02 | 5946479.30 |
| SV 30 | 1748330.80 | 5946362.48 | WM 694 | 1748236.66 | 5946495.45 |
| SV 31 | 1748331.04 | 5946361.92 | WM 695 | 1748239.79 | 5946541.55 |
| SV 32 | 1748330.61 | 5946362.12 | WM 696 | 1748239.33 | 5946542.85 |
| SV 33 | 1748522.73 | 5946436.10 | WM 697 | 1748259.32 | 5946560.01 |
| SV 34 | 1748086.52 | 5946258.59 | WM 698 | 1748264.18 | 5946545.03 |
| SV 35 | 1748086.33 | 5946258.19 | WM 699 | 1748264.59 | 5946543.71 |
| SV 36 | 1748086.75 | 5946258.03 | WM 700 | 1748269.43 | 5946528.88 |
| SV 37 | 1747902.91 | 5946162.35 | WM 701 | 1748316.58 | 5946525.92 |
| SV 38 | 1747902.50 | 5946162.15 | WM 702 | 1748309.18 | 5946557.16 |
| SV 39 | 1747908.97 | 5946150.69 | WM 703 | 1748310.56 | 5946557.52 |
| SV 40 | 1748461.44 | 5946630.80 | WM 704 | 1748340.22 | 5946534.50 |
| | | | WM 705 | 1748358.62 | 5946560.91 |
| | | | WM 706 | 1748358.15 | 5946562.24 |
| | | | WM 707 | 1748349.20 | 5946589.77 |
| | | | WM 708 | 1748349.61 | 5946588.02 |
| | | | WM 709 | 1748366.06 | 5946593.91 |
| | | | WM 710 | 1748374.30 | 5946567.68 |
| | | | WM 711 | 1748374.75 | 5946566.28 |
| | | | WM 712 | 1748419.89 | 5946562.24 |
| | | | WM 713 | 1748438.14 | 5946568.33 |
| | | | WM 714 | 1748421.14 | 5946562.69 |
| | | | WM 715 | 1748454.99 | 5946609.32 |
| | | | WM 716 | 1748455.61 | 5946608.11 |
| | | | WM 717 | 1748439.47 | 5946568.75 |
| | | | WM 718 | 1748451.93 | 5946554.93 |
| | | | WM 719 | 1748487.43 | 5946530.12 |
| | | | WM 720 | 1748487.98 | 5946528.67 |
| | | | WM 721 | 1748452.73 | 5946495.60 |
| | | | WM 722 | 1748451.31 | 5946495.19 |
| | | | WM 723 | 1748423.04 | 5946485.31 |
| | | | WM 724 | 1748421.52 | 5946484.85 |
| | | | WM 725 | 1748389.65 | 5946473.78 |
| | | | WM 726 | 1748388.29 | 5946473.36 |
| | | | WM 727 | 1748359.07 | 5946462.82 |
| | | | WM 728 | 1748357.76 | 5946462.39 |
| | | | WM 729 | 1748327.92 | 5946451.32 |
| | | | WM 730 | 1748326.55 | 5946450.92 |
| | | | WM 731 | 1748288.85 | 5946475.52 |
| | | | WM 732 | 1748288.33 | 5946476.86 |
| | | | WM 733 | 1748318.48 | 5946508.46 |
| | | | WM 734 | 1748319.76 | 5946508.94 |
| | | | WM 735 | 1748347.85 | 5946519.13 |
| | | | WM 736 | 1748349.24 | 5946519.65 |
| | | | WM 737 | 1748377.49 | 5946529.72 |
| | | | WM 738 | 1748378.79 | 5946530.18 |
| | | | WM 739 | 1748407.22 | 5946539.98 |
| | | | WM 740 | 1748408.50 | 5946540.39 |
| | | | WM 741 | 1748436.89 | 5946549.92 |
| | | | WM 742 | 1748450.59 | 5946554.50 |

- NOTES**
- ALL WORK AND MATERIALS COMPLIES WITH AC STANDARD FOR ENGINEERING DESIGN AND CONSTRUCTION.
 - PIPE BEDDING COMPLIES WITH AC STD DETAIL DRAWING 1800 SHEET 4.4 UNLESS OTHERWISE NOTED.
 - WATERMAINS ARE AN AVERAGE 0.6m BELOW GROUND IN BERMS AND 0.9m BELOW GROUND UNDER ROADS. HARDFILL BACKFILLED BENEATH ROAD CROSSINGS.
 - ALL PIPES ARE LAID 1.4m OFF THE ROAD RESERVE BOUNDARY IN THE COMMON SERVICE TRENCH.
 - PIPE SIZES SHOWN ARE EXTERNAL DIAMETER.
 - LOT BOUNDARIES ARE SUBJECT TO FINAL SURVEY.
 - ASBUILT DATA HAS BEEN SOURCED FROM A COMBINATION OF WOODS SURVEY MEASURED DATA AND CONTRACTOR RECEIVED DATA.



| REVISION DETAILS | | BY | DATE |
|------------------|------------------------|----|----------|
| 1 | ISSUED FOR INFORMATION | KR | 17/10/19 |
| 2 | ISSUED FOR 224c | KR | 4/11/19 |

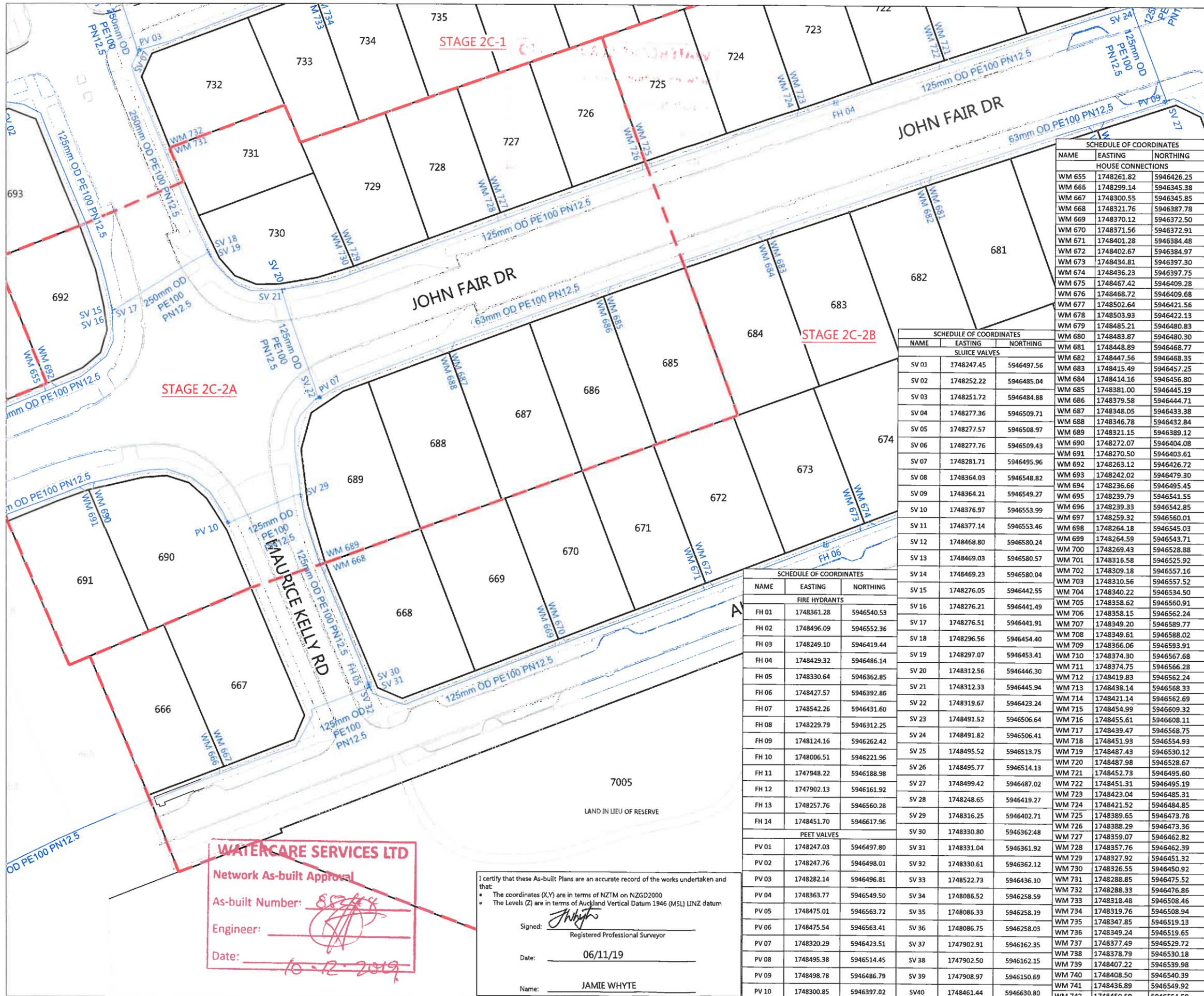
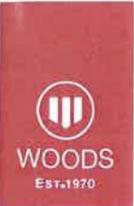
| SURVEYED | WOODS | WOODS Ltd LEVEL 1 BUILDING B 8 NUGENT STREET, GRAFTON AUCKLAND 1023 09 308 9229 WOODS.CO.NZ |
|----------|-------|--|
| DESIGNED | TB | |
| DRAWN | SK | |
| CHECKED | BO | |
| APPROVED | JW | |



MILLDALE
STAGE 2C
WATERMAIN
ASBUILT PLAN
SHEET 3 OF 7

| STATUS | AS-BUILT | REV |
|---------|--------------------|-----|
| SCALE | 1 : 750 @ A3 | 2 |
| COUNCIL | AUCKLAND COUNCIL | |
| DWG NO | P18-006-02C-602-AB | |





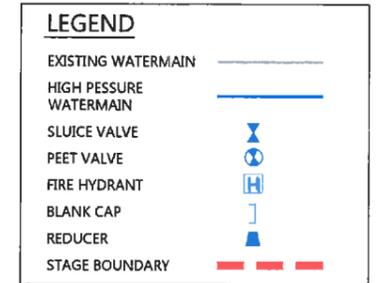
| SCHEDULE OF COORDINATES | | |
|-------------------------|------------|------------|
| NAME | EASTING | NORTHING |
| HOUSE CONNECTIONS | | |
| WM 655 | 1748261.82 | 5946426.25 |
| WM 666 | 1748299.14 | 5946345.38 |
| WM 667 | 1748300.55 | 5946345.85 |
| WM 668 | 1748321.76 | 5946387.78 |
| WM 669 | 1748370.12 | 5946372.50 |
| WM 670 | 1748371.56 | 5946372.91 |
| WM 671 | 1748401.28 | 5946384.48 |
| WM 672 | 1748402.67 | 5946384.97 |
| WM 673 | 1748434.81 | 5946397.30 |
| WM 674 | 1748436.23 | 5946397.75 |
| WM 675 | 1748467.42 | 5946409.28 |
| WM 676 | 1748468.72 | 5946409.68 |
| WM 677 | 1748502.64 | 5946421.56 |
| WM 678 | 1748503.93 | 5946422.13 |
| WM 679 | 1748485.21 | 5946480.83 |
| WM 680 | 1748483.87 | 5946480.30 |
| WM 681 | 1748448.89 | 5946468.77 |
| WM 682 | 1748447.56 | 5946468.35 |
| WM 683 | 1748415.49 | 5946457.25 |
| WM 684 | 1748414.16 | 5946456.80 |
| WM 685 | 1748381.00 | 5946445.19 |
| WM 686 | 1748379.58 | 5946444.71 |
| WM 687 | 1748348.05 | 5946433.38 |
| WM 688 | 1748346.78 | 5946432.84 |
| WM 689 | 1748321.15 | 5946389.12 |
| WM 690 | 1748272.07 | 5946404.08 |
| WM 691 | 1748270.50 | 5946403.61 |
| WM 692 | 1748263.12 | 5946426.72 |
| WM 693 | 1748242.02 | 5946479.30 |
| WM 694 | 1748236.66 | 5946495.45 |
| WM 695 | 1748239.79 | 5946541.55 |
| WM 696 | 1748239.33 | 5946542.85 |
| WM 697 | 1748259.32 | 5946560.01 |
| WM 698 | 1748264.18 | 5946545.03 |
| WM 699 | 1748264.59 | 5946543.71 |
| WM 700 | 1748269.43 | 5946528.88 |
| WM 701 | 1748316.58 | 5946525.92 |
| WM 702 | 1748309.18 | 5946557.16 |
| WM 703 | 1748310.56 | 5946557.52 |
| WM 704 | 1748340.22 | 5946534.50 |
| WM 705 | 1748358.62 | 5946560.91 |
| WM 706 | 1748358.15 | 5946562.24 |
| WM 707 | 1748349.20 | 5946589.77 |
| WM 708 | 1748349.61 | 5946588.02 |
| WM 709 | 1748366.06 | 5946593.91 |
| WM 710 | 1748374.30 | 5946567.68 |
| WM 711 | 1748374.75 | 5946566.28 |
| WM 712 | 1748419.83 | 5946562.24 |
| WM 713 | 1748438.14 | 5946568.33 |
| WM 714 | 1748421.14 | 5946562.69 |
| WM 715 | 1748454.99 | 5946609.32 |
| WM 716 | 1748455.61 | 5946608.11 |
| WM 717 | 1748439.47 | 5946568.75 |
| WM 718 | 1748451.93 | 5946554.93 |
| WM 719 | 1748487.43 | 5946530.12 |
| WM 720 | 1748487.98 | 5946528.67 |
| WM 721 | 1748452.73 | 5946495.60 |
| WM 722 | 1748451.31 | 5946495.19 |
| WM 723 | 1748423.04 | 5946485.31 |
| WM 724 | 1748421.52 | 5946484.85 |
| WM 725 | 1748389.65 | 5946473.78 |
| WM 726 | 1748388.29 | 5946473.36 |
| WM 727 | 1748359.07 | 5946462.82 |
| WM 728 | 1748357.76 | 5946462.39 |
| WM 729 | 1748327.92 | 5946451.32 |
| WM 730 | 1748326.55 | 5946450.92 |
| WM 731 | 1748288.85 | 5946475.52 |
| WM 732 | 1748288.33 | 5946476.86 |
| WM 733 | 1748318.48 | 5946508.46 |
| WM 734 | 1748319.76 | 5946508.94 |
| WM 735 | 1748347.85 | 5946519.13 |
| WM 736 | 1748349.24 | 5946519.65 |
| WM 737 | 1748377.49 | 5946529.72 |
| WM 738 | 1748378.79 | 5946530.18 |
| WM 739 | 1748407.22 | 5946539.98 |
| WM 740 | 1748408.50 | 5946540.39 |
| WM 741 | 1748436.89 | 5946549.92 |
| WM 742 | 1748450.59 | 5946554.50 |

| SCHEDULE OF COORDINATES | | |
|-------------------------|------------|------------|
| NAME | EASTING | NORTHING |
| SLUICE VALVES | | |
| SV 01 | 1748247.45 | 5946497.56 |
| SV 02 | 1748252.22 | 5946485.04 |
| SV 03 | 1748251.72 | 5946484.88 |
| SV 04 | 1748277.36 | 5946509.71 |
| SV 05 | 1748277.57 | 5946508.97 |
| SV 06 | 1748277.76 | 5946509.43 |
| SV 07 | 1748281.71 | 5946495.96 |
| SV 08 | 1748364.03 | 5946548.82 |
| SV 09 | 1748364.21 | 5946549.27 |
| SV 10 | 1748376.97 | 5946553.99 |
| SV 11 | 1748377.14 | 5946553.46 |
| SV 12 | 1748468.80 | 5946580.24 |
| SV 13 | 1748469.03 | 5946580.57 |
| SV 14 | 1748469.23 | 5946580.04 |
| SV 15 | 1748276.05 | 5946442.55 |
| SV 16 | 1748276.21 | 5946441.49 |
| SV 17 | 1748276.51 | 5946441.91 |
| SV 18 | 1748296.56 | 5946454.40 |
| SV 19 | 1748297.07 | 5946453.41 |
| SV 20 | 1748312.56 | 5946446.30 |
| SV 21 | 1748312.33 | 5946445.94 |
| SV 22 | 1748319.67 | 5946423.24 |
| SV 23 | 1748491.52 | 5946506.64 |
| SV 24 | 1748491.82 | 5946506.41 |
| SV 25 | 1748495.52 | 5946513.75 |
| SV 26 | 1748495.77 | 5946514.13 |
| SV 27 | 1748499.42 | 5946487.02 |
| SV 28 | 1748248.65 | 5946419.27 |
| SV 29 | 1748316.25 | 5946402.71 |
| SV 30 | 1748330.80 | 5946362.48 |
| SV 31 | 1748331.04 | 5946361.92 |
| SV 32 | 1748330.61 | 5946362.12 |
| SV 33 | 1748522.73 | 5946436.10 |
| SV 34 | 1748086.52 | 5946258.59 |
| SV 35 | 1748086.33 | 5946258.19 |
| SV 36 | 1748086.75 | 5946258.03 |
| SV 37 | 1747902.91 | 5946162.35 |
| SV 38 | 1747902.50 | 5946162.15 |
| SV 39 | 1747908.97 | 5946150.69 |
| SV 40 | 1748461.44 | 5946630.80 |

| SCHEDULE OF COORDINATES | | |
|-------------------------|------------|------------|
| NAME | EASTING | NORTHING |
| FIRE HYDRANTS | | |
| FH 01 | 1748361.28 | 5946540.53 |
| FH 02 | 1748496.09 | 5946552.36 |
| FH 03 | 1748249.10 | 5946419.44 |
| FH 04 | 1748429.32 | 5946486.14 |
| FH 05 | 1748330.64 | 5946362.85 |
| FH 06 | 1748427.57 | 5946392.86 |
| FH 07 | 1748542.26 | 5946431.60 |
| FH 08 | 1748229.79 | 5946312.25 |
| FH 09 | 1748124.16 | 5946262.42 |
| FH 10 | 1748006.51 | 5946221.96 |
| FH 11 | 1747948.22 | 5946188.98 |
| FH 12 | 1747902.13 | 5946161.92 |
| FH 13 | 1748257.76 | 5946560.28 |
| FH 14 | 1748451.70 | 5946617.96 |

| PEET VALVES | | |
|-------------|------------|------------|
| NAME | EASTING | NORTHING |
| PV 01 | 1748247.03 | 5946497.80 |
| PV 02 | 1748247.76 | 5946498.01 |
| PV 03 | 1748282.14 | 5946496.81 |
| PV 04 | 1748363.77 | 5946549.50 |
| PV 05 | 1748475.01 | 5946563.72 |
| PV 06 | 1748475.54 | 5946563.41 |
| PV 07 | 1748320.29 | 5946423.51 |
| PV 08 | 1748495.38 | 5946514.45 |
| PV 09 | 1748498.78 | 5946486.79 |
| PV 10 | 1748300.85 | 5946397.02 |

- NOTES**
- ALL WORK AND MATERIALS COMPLIES WITH AC STANDARD FOR ENGINEERING DESIGN AND CONSTRUCTION.
 - PIPE BEDDING COMPLIES WITH AC STD DETAIL DRAWING 18000 SHEET 4.4 UNLESS OTHERWISE NOTED.
 - WATERMAINS ARE AN AVERAGE 0.6m BELOW GROUND IN BERMS AND 0.9m BELOW GROUND UNDER ROADS. HARDFILL BACKFILLED BENEATH ROAD CROSSINGS.
 - ALL PIPES ARE LAID 1.4m OFF THE ROAD RESERVE BOUNDARY IN THE COMMON SERVICE TRENCH.
 - PIPE SIZES SHOWN ARE EXTERNAL DIAMETER.
 - LOT BOUNDARIES ARE SUBJECT TO FINAL SURVEY.
 - ASBUILT DATA HAS BEEN SOURCED FROM A COMBINATION OF WOODS SURVEY MEASURED DATA AND CONTRACTOR RECEIVED DATA.



| REVISION DETAILS | | BY | DATE |
|------------------|------------------------|----|----------|
| 1 | ISSUED FOR INFORMATION | KR | 17/10/19 |
| 2 | ISSUED FOR 224c | KR | 4/11/19 |

| SURVEYED | WOODS | WOODS Ltd LEVEL 1 BUILDING B 8 NUGENT STREET, GRAFTON AUCKLAND 1023 09 308 9229 WOODS.CO.NZ |
|----------|-------|--|
| DESIGNED | TB | |
| DRAWN | SK | |
| CHECKED | BO | |
| APPROVED | JW | |



MILLDALE
STAGE 2C

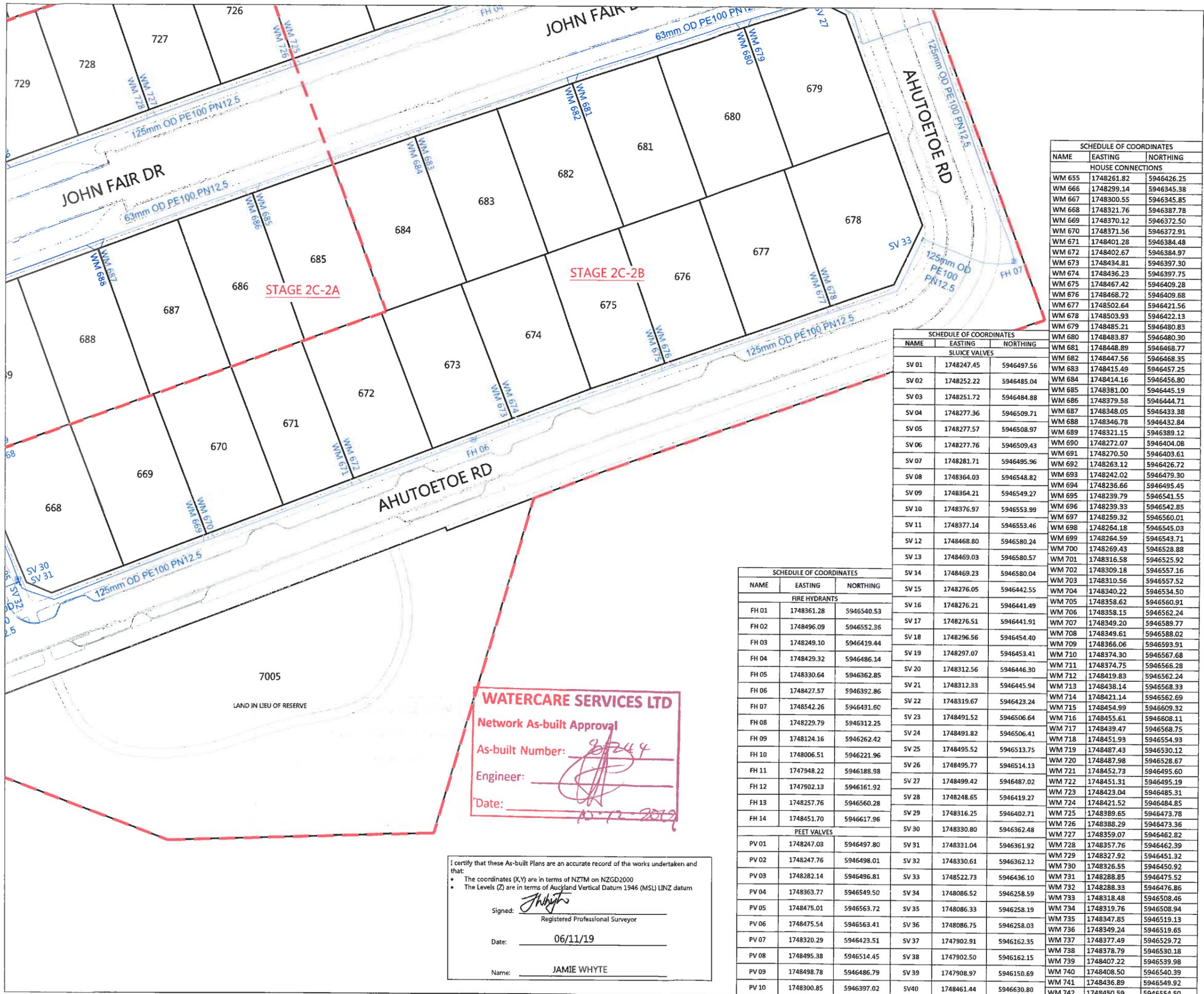
WATERMAIN
ASBUILT PLAN
SHEET 4 OF 7

| STATUS | AS-BUILT | REV |
|---------|--------------------|-----|
| SCALE | 1 : 500 @ A3 | 2 |
| COUNCIL | AUCKLAND COUNCIL | |
| DWG NO | P18-006-02C-603-AB | |

WATERCARE SERVICES LTD
Network As-built Approval
As-built Number: 882778
Engineer: [Signature]
Date: 10.12.2019

I certify that these As-built Plans are an accurate record of the works undertaken and that:
• The coordinates (X,Y) are in terms of NZTM on NZGD2000
• The Levels (Z) are in terms of Auckland Vertical Datum 1946 (MSL) LINZ datum

Signed: [Signature]
Registered Professional Surveyor
Date: 06/11/19
Name: JAMIE WHYTE

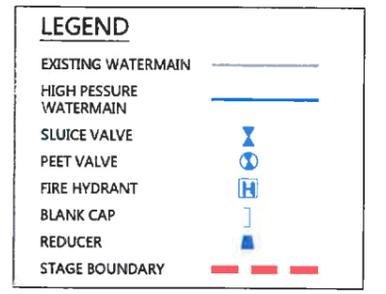


| SCHEDULE OF COORDINATES | | |
|-------------------------|------------|------------|
| NAME | EASTING | NORTHING |
| HOUSE CONNECTIONS | | |
| WM 655 | 1748261.82 | 5946426.25 |
| WM 666 | 1748299.14 | 5946345.38 |
| WM 667 | 1748300.55 | 5946345.85 |
| WM 668 | 1748321.76 | 5946387.78 |
| WM 669 | 1748370.12 | 5946372.50 |
| WM 670 | 1748371.56 | 5946372.91 |
| WM 671 | 1748401.28 | 5946384.48 |
| WM 672 | 1748402.67 | 5946384.97 |
| WM 673 | 1748434.81 | 5946397.30 |
| WM 674 | 1748436.23 | 5946397.75 |
| WM 675 | 1748467.42 | 5946409.28 |
| WM 676 | 1748468.72 | 5946409.68 |
| WM 677 | 1748502.64 | 5946421.56 |
| WM 678 | 1748503.93 | 5946422.13 |
| WM 679 | 1748485.21 | 5946480.83 |
| WM 680 | 1748483.87 | 5946480.30 |
| WM 681 | 1748448.89 | 5946468.77 |
| WM 682 | 1748447.56 | 5946468.35 |
| WM 683 | 1748415.49 | 5946457.25 |
| WM 684 | 1748414.16 | 5946456.80 |
| WM 685 | 1748381.00 | 5946445.19 |
| WM 686 | 1748379.58 | 5946444.71 |
| WM 687 | 1748348.05 | 5946433.38 |
| WM 688 | 1748346.78 | 5946432.84 |
| WM 689 | 1748321.15 | 5946389.12 |
| WM 690 | 1748272.07 | 5946404.08 |
| WM 691 | 1748270.50 | 5946403.61 |
| WM 692 | 1748263.12 | 5946426.72 |
| WM 693 | 1748242.02 | 5946479.30 |
| WM 694 | 1748236.66 | 5946495.45 |
| WM 695 | 1748239.79 | 5946541.55 |
| WM 696 | 1748239.33 | 5946542.85 |
| WM 697 | 1748259.32 | 5946560.01 |
| WM 698 | 1748264.18 | 5946545.03 |
| WM 699 | 1748264.59 | 5946543.71 |
| WM 700 | 1748269.43 | 5946528.88 |
| WM 701 | 1748316.58 | 5946525.92 |
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| WM 703 | 1748310.56 | 5946557.52 |
| WM 704 | 1748340.22 | 5946534.50 |
| WM 705 | 1748358.62 | 5946560.91 |
| WM 706 | 1748358.15 | 5946562.24 |
| WM 707 | 1748349.20 | 5946589.77 |
| WM 708 | 1748349.61 | 5946588.02 |
| WM 709 | 1748366.06 | 5946593.91 |
| WM 710 | 1748374.30 | 5946567.68 |
| WM 711 | 1748374.75 | 5946566.28 |
| WM 712 | 1748419.83 | 5946562.24 |
| WM 713 | 1748438.14 | 5946568.33 |
| WM 714 | 1748421.14 | 5946562.69 |
| WM 715 | 1748454.99 | 5946609.32 |
| WM 716 | 1748455.61 | 5946608.11 |
| WM 717 | 1748439.47 | 5946568.75 |
| WM 718 | 1748451.93 | 5946554.93 |
| WM 719 | 1748487.43 | 5946530.12 |
| WM 720 | 1748487.98 | 5946528.67 |
| WM 721 | 1748452.73 | 5946495.60 |
| WM 722 | 1748451.31 | 5946495.19 |
| WM 723 | 1748423.04 | 5946485.31 |
| WM 724 | 1748421.52 | 5946484.85 |
| WM 725 | 1748389.65 | 5946473.78 |
| WM 726 | 1748388.29 | 5946473.36 |
| WM 727 | 1748359.07 | 5946462.82 |
| WM 728 | 1748357.76 | 5946462.39 |
| WM 729 | 1748327.92 | 5946451.32 |
| WM 730 | 1748326.55 | 5946450.92 |
| WM 731 | 1748288.85 | 5946475.52 |
| WM 732 | 1748288.33 | 5946476.86 |
| WM 733 | 1748318.48 | 5946508.46 |
| WM 734 | 1748319.76 | 5946508.94 |
| WM 735 | 1748347.85 | 5946519.13 |
| WM 736 | 1748349.24 | 5946519.65 |
| WM 737 | 1748377.49 | 5946529.72 |
| WM 738 | 1748378.79 | 5946530.18 |
| WM 739 | 1748407.22 | 5946539.98 |
| WM 740 | 1748408.50 | 5946540.39 |
| WM 741 | 1748436.89 | 5946549.92 |
| WM 742 | 1748450.59 | 5946554.50 |

| SCHEDULE OF COORDINATES | | |
|-------------------------|------------|------------|
| NAME | EASTING | NORTHING |
| SLUICE VALVES | | |
| SV 01 | 1748247.45 | 5946497.56 |
| SV 02 | 1748252.22 | 5946485.04 |
| SV 03 | 1748251.72 | 5946484.88 |
| SV 04 | 1748277.36 | 5946509.71 |
| SV 05 | 1748277.57 | 5946508.97 |
| SV 06 | 1748277.76 | 5946509.43 |
| SV 07 | 1748281.71 | 5946495.96 |
| SV 08 | 1748364.03 | 5946548.82 |
| SV 09 | 1748364.21 | 5946549.27 |
| SV 10 | 1748376.97 | 5946553.99 |
| SV 11 | 1748377.14 | 5946553.46 |
| SV 12 | 1748468.80 | 5946580.24 |
| SV 13 | 1748469.03 | 5946580.57 |
| SV 14 | 1748469.23 | 5946580.04 |
| SV 15 | 1748276.05 | 5946442.55 |
| SV 16 | 1748276.21 | 5946441.49 |
| SV 17 | 1748276.51 | 5946441.91 |
| SV 18 | 1748296.56 | 5946454.40 |
| SV 19 | 1748297.07 | 5946453.41 |
| SV 20 | 1748312.56 | 5946446.30 |
| SV 21 | 1748312.33 | 5946445.94 |
| SV 22 | 1748319.67 | 5946423.24 |
| SV 23 | 1748491.52 | 5946506.64 |
| SV 24 | 1748491.82 | 5946506.41 |
| SV 25 | 1748495.52 | 5946513.75 |
| SV 26 | 1748495.77 | 5946514.13 |
| SV 27 | 1748499.42 | 5946487.02 |
| SV 28 | 1748248.65 | 5946419.27 |
| SV 29 | 1748316.25 | 5946402.71 |
| SV 30 | 1748330.80 | 5946362.48 |
| SV 31 | 1748331.04 | 5946361.92 |
| SV 32 | 1748330.61 | 5946362.12 |
| SV 33 | 1748522.73 | 5946436.10 |
| SV 34 | 1748086.52 | 5946258.59 |
| SV 35 | 1748086.33 | 5946258.19 |
| SV 36 | 1748086.75 | 5946258.03 |
| SV 37 | 1747902.91 | 5946162.35 |
| SV 38 | 1747902.50 | 5946162.15 |
| SV 39 | 1747908.97 | 5946150.69 |
| SV 40 | 1748461.44 | 5946630.80 |

| SCHEDULE OF COORDINATES | | |
|-------------------------|------------|------------|
| NAME | EASTING | NORTHING |
| FIRE HYDRANTS | | |
| FH 01 | 1748361.28 | 5946540.53 |
| FH 02 | 1748496.09 | 5946552.36 |
| FH 03 | 1748249.10 | 5946419.44 |
| FH 04 | 1748429.32 | 5946486.14 |
| FH 05 | 1748330.64 | 5946362.85 |
| FH 06 | 1748427.57 | 5946392.86 |
| FH 07 | 1748542.26 | 5946491.60 |
| FH 08 | 1748229.79 | 5946312.25 |
| FH 09 | 1748124.16 | 5946262.42 |
| FH 10 | 1748006.51 | 5946221.96 |
| FH 11 | 1747948.22 | 5946188.98 |
| FH 12 | 1747902.13 | 5946161.92 |
| FH 13 | 1748257.76 | 5946560.28 |
| FH 14 | 1748451.70 | 5946617.96 |
| PEET VALVES | | |
| PV 01 | 1748247.03 | 5946497.80 |
| PV 02 | 1748247.76 | 5946498.01 |
| PV 03 | 1748282.14 | 5946496.81 |
| PV 04 | 1748363.77 | 5946549.50 |
| PV 05 | 1748475.01 | 5946563.72 |
| PV 06 | 1748475.54 | 5946563.41 |
| PV 07 | 1748320.29 | 5946423.51 |
| PV 08 | 1748495.38 | 5946514.45 |
| PV 09 | 1748498.78 | 5946486.79 |
| PV 10 | 1748300.85 | 5946397.02 |

- NOTES**
- ALL WORK AND MATERIALS COMPLIES WITH AC STANDARD FOR ENGINEERING DESIGN AND CONSTRUCTION.
 - PIPE BEDDING COMPLIES WITH AC STD DETAIL DRAWING 18000 SHEET 4.4 UNLESS OTHERWISE NOTED.
 - WATERMANS ARE AN AVERAGE 0.6m BELOW GROUND IN BERMS AND 0.9m BELOW GROUND UNDER ROADS. HARDFILL BACKFILLED BENEATH ROAD CROSSINGS.
 - ALL PIPES ARE LAID 1.4m OFF THE ROAD RESERVE BOUNDARY IN THE COMMON SERVICE TRENCH.
 - PIPE SIZES SHOWN ARE EXTERNAL DIAMETER.
 - LOT BOUNDARIES ARE SUBJECT TO FINAL SURVEY.
 - ASBUILT DATA HAS BEEN SOURCED FROM A COMBINATION OF WOODS SURVEY MEASURED DATA AND CONTRACTOR RECEIVED DATA.



| REVISION DETAILS | | BY | DATE |
|------------------|------------------------|----|----------|
| 1 | ISSUED FOR INFORMATION | KR | 17/10/19 |
| 2 | ISSUED FOR 224c | KR | 4/11/19 |

| SURVEYED | WOODS | WOODS Ltd LEVEL 1 BUILDING B 8 NUGENT STREET, GRAFTON AUCKLAND 1023 09 308 9229 WOODS.CO.NZ |
|----------|-------|--|
| DESIGNED | TB | |
| DRAWN | SK | |
| CHECKED | BO | |
| APPROVED | JW | |



**MILLDALE
STAGE 2C**

**WATERMAIN
ASBUILT PLAN
SHEET 5 OF 7**

| STATUS | AS-BUILT | REV |
|---------|--------------------|-----|
| SCALE | 1 : 500 @ A3 | 2 |
| COUNCIL | AUCKLAND COUNCIL | |
| DWG NO | P18-006-02C-604-AB | |

WATERCARE SERVICES LTD
 Network As-built Approval
 As-built Number: 207244
 Engineer: [Signature]
 Date: 10-11-2019

I certify that these As-built Plans are an accurate record of the works undertaken and that:
 • The coordinates (X,Y) are in terms of NZTM on NZGD2000
 • The Levels (Z) are in terms of Auckland Vertical Datum 1946 (MSL) LINZ datum

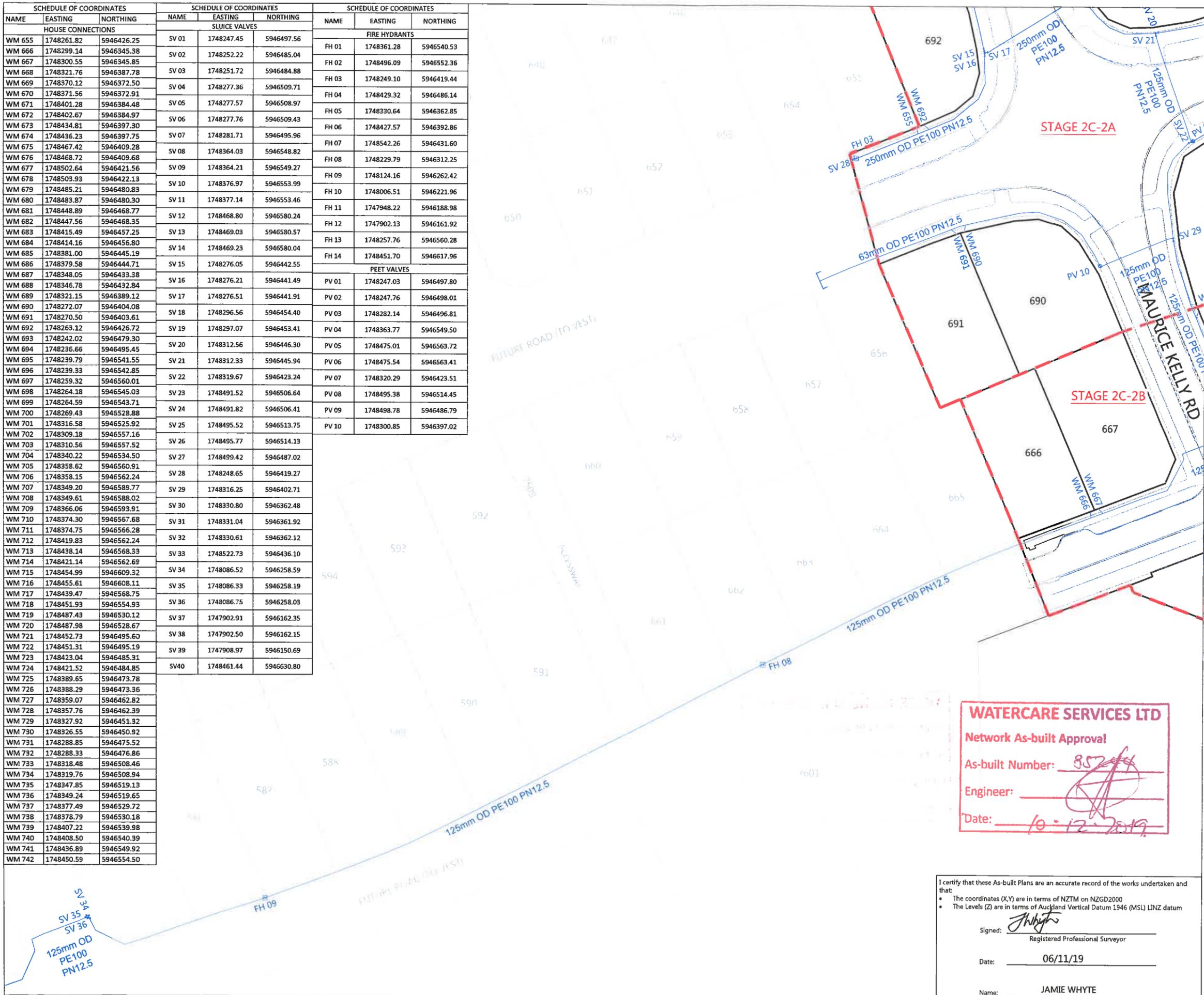
Signed: [Signature]
 Registered Professional Surveyor

Date: 06/11/19

Name: JAMIE WHYTE



| SCHEDULE OF COORDINATES | | | SCHEDULE OF COORDINATES | | | SCHEDULE OF COORDINATES | | |
|-------------------------|------------|------------|-------------------------|------------|------------|-------------------------|------------|------------|
| NAME | EASTING | NORTHING | NAME | EASTING | NORTHING | NAME | EASTING | NORTHING |
| HOUSE CONNECTIONS | | | SLUICE VALVES | | | FIRE HYDRANTS | | |
| WM 655 | 1748261.82 | 5946426.25 | SV 01 | 1748247.45 | 5946497.56 | FH 01 | 1748361.28 | 5946540.53 |
| WM 666 | 1748299.14 | 5946345.38 | SV 02 | 1748252.22 | 5946485.04 | FH 02 | 1748496.09 | 5946552.36 |
| WM 667 | 1748300.55 | 5946345.85 | SV 03 | 1748251.72 | 5946484.88 | FH 03 | 1748249.10 | 5946419.44 |
| WM 668 | 1748321.76 | 5946387.78 | SV 04 | 1748277.36 | 5946509.71 | FH 04 | 1748429.32 | 5946486.14 |
| WM 669 | 1748370.12 | 5946372.50 | SV 05 | 1748277.57 | 5946508.97 | FH 05 | 1748330.64 | 5946362.85 |
| WM 670 | 1748371.56 | 5946372.91 | SV 06 | 1748277.76 | 5946509.43 | FH 06 | 1748427.57 | 5946392.86 |
| WM 671 | 1748401.28 | 5946384.48 | SV 07 | 1748281.71 | 5946495.96 | FH 07 | 1748542.26 | 5946431.60 |
| WM 672 | 1748402.67 | 5946384.97 | SV 08 | 1748364.03 | 5946548.82 | FH 08 | 1748229.79 | 5946312.25 |
| WM 673 | 1748434.81 | 5946397.30 | SV 09 | 1748364.21 | 5946549.27 | FH 09 | 1748124.16 | 5946262.42 |
| WM 674 | 1748436.23 | 5946397.75 | SV 10 | 1748376.97 | 5946553.99 | FH 10 | 1748006.51 | 5946221.96 |
| WM 675 | 1748467.42 | 5946409.28 | SV 11 | 1748377.14 | 5946553.46 | FH 11 | 1747948.22 | 5946188.98 |
| WM 676 | 1748468.72 | 5946409.68 | SV 12 | 1748468.80 | 5946580.24 | FH 12 | 1747902.13 | 5946161.92 |
| WM 677 | 1748502.64 | 5946421.56 | SV 13 | 1748469.03 | 5946580.57 | FH 13 | 1748257.76 | 5946560.28 |
| WM 678 | 1748503.93 | 5946422.13 | SV 14 | 1748469.23 | 5946580.04 | FH 14 | 1748451.70 | 5946617.96 |
| WM 679 | 1748485.21 | 5946480.83 | SV 15 | 1748276.05 | 5946442.55 | PEET VALVES | | |
| WM 680 | 1748483.87 | 5946480.30 | SV 16 | 1748276.21 | 5946441.49 | PV 01 | 1748247.03 | 5946497.80 |
| WM 681 | 1748448.89 | 5946468.77 | SV 17 | 1748276.51 | 5946441.91 | PV 02 | 1748247.76 | 5946498.01 |
| WM 682 | 1748447.56 | 5946468.35 | SV 18 | 1748296.56 | 5946454.40 | PV 03 | 1748282.14 | 5946496.81 |
| WM 683 | 1748415.49 | 5946457.25 | SV 19 | 1748297.07 | 5946453.41 | PV 04 | 1748363.77 | 5946549.50 |
| WM 684 | 1748414.16 | 5946456.80 | SV 20 | 1748312.56 | 5946446.30 | PV 05 | 1748475.01 | 5946563.72 |
| WM 685 | 1748381.00 | 5946445.19 | SV 21 | 1748312.33 | 5946445.94 | PV 06 | 1748475.54 | 5946563.41 |
| WM 686 | 1748379.58 | 5946444.71 | SV 22 | 1748319.67 | 5946423.24 | PV 07 | 1748320.29 | 5946423.51 |
| WM 687 | 1748348.05 | 5946433.38 | SV 23 | 1748491.52 | 5946506.64 | PV 08 | 1748495.38 | 5946514.45 |
| WM 688 | 1748346.78 | 5946432.84 | SV 24 | 1748491.82 | 5946506.41 | PV 09 | 1748498.78 | 5946486.79 |
| WM 689 | 1748321.15 | 5946389.12 | SV 25 | 1748495.52 | 5946513.75 | PV 10 | 1748300.85 | 5946397.02 |
| WM 690 | 1748272.07 | 5946404.08 | SV 26 | 1748495.77 | 5946514.13 | | | |
| WM 691 | 1748270.50 | 5946403.61 | SV 27 | 1748499.42 | 5946487.02 | | | |
| WM 692 | 1748263.12 | 5946426.72 | SV 28 | 1748248.65 | 5946419.27 | | | |
| WM 693 | 1748242.02 | 5946479.30 | SV 29 | 1748316.25 | 5946402.71 | | | |
| WM 694 | 1748236.66 | 5946495.45 | SV 30 | 1748330.80 | 5946362.48 | | | |
| WM 695 | 1748239.79 | 5946541.55 | SV 31 | 1748331.04 | 5946361.92 | | | |
| WM 696 | 1748239.33 | 5946542.85 | SV 32 | 1748330.61 | 5946362.12 | | | |
| WM 697 | 1748259.32 | 5946560.01 | SV 33 | 1748522.73 | 5946436.10 | | | |
| WM 698 | 1748264.18 | 5946545.03 | SV 34 | 1748086.52 | 5946258.59 | | | |
| WM 699 | 1748264.59 | 5946543.71 | SV 35 | 1748086.33 | 5946258.19 | | | |
| WM 700 | 1748269.43 | 5946528.88 | SV 36 | 1748086.75 | 5946258.03 | | | |
| WM 701 | 1748316.58 | 5946525.92 | SV 37 | 1747902.91 | 5946162.35 | | | |
| WM 702 | 1748309.18 | 5946557.16 | SV 38 | 1747902.50 | 5946162.15 | | | |
| WM 703 | 1748310.56 | 5946557.52 | SV 39 | 1747908.97 | 5946150.69 | | | |
| WM 704 | 1748340.22 | 5946534.50 | SV40 | 1748461.44 | 5946630.80 | | | |
| WM 705 | 1748358.62 | 5946560.91 | | | | | | |
| WM 706 | 1748358.15 | 5946562.24 | | | | | | |
| WM 707 | 1748349.20 | 5946589.77 | | | | | | |
| WM 708 | 1748349.61 | 5946588.02 | | | | | | |
| WM 709 | 1748366.06 | 5946593.91 | | | | | | |
| WM 710 | 1748374.30 | 5946567.68 | | | | | | |
| WM 711 | 1748374.75 | 5946566.28 | | | | | | |
| WM 712 | 1748419.83 | 5946562.24 | | | | | | |
| WM 713 | 1748438.14 | 5946568.33 | | | | | | |
| WM 714 | 1748421.14 | 5946562.69 | | | | | | |
| WM 715 | 1748454.99 | 5946609.32 | | | | | | |
| WM 716 | 1748455.61 | 5946608.11 | | | | | | |
| WM 717 | 1748439.47 | 5946568.75 | | | | | | |
| WM 718 | 1748451.93 | 5946554.93 | | | | | | |
| WM 719 | 1748487.43 | 5946530.12 | | | | | | |
| WM 720 | 1748487.98 | 5946528.67 | | | | | | |
| WM 721 | 1748452.73 | 5946495.60 | | | | | | |
| WM 722 | 1748451.31 | 5946495.19 | | | | | | |
| WM 723 | 1748423.04 | 5946485.31 | | | | | | |
| WM 724 | 1748421.52 | 5946484.85 | | | | | | |
| WM 725 | 1748389.65 | 5946473.78 | | | | | | |
| WM 726 | 1748388.29 | 5946473.36 | | | | | | |
| WM 727 | 1748359.07 | 5946462.82 | | | | | | |
| WM 728 | 1748357.76 | 5946462.39 | | | | | | |
| WM 729 | 1748327.92 | 5946451.32 | | | | | | |
| WM 730 | 1748326.55 | 5946450.92 | | | | | | |
| WM 731 | 1748288.85 | 5946475.52 | | | | | | |
| WM 732 | 1748288.33 | 5946476.86 | | | | | | |
| WM 733 | 1748318.48 | 5946508.46 | | | | | | |
| WM 734 | 1748319.76 | 5946508.94 | | | | | | |
| WM 735 | 1748347.85 | 5946519.13 | | | | | | |
| WM 736 | 1748349.24 | 5946519.65 | | | | | | |
| WM 737 | 1748377.49 | 5946529.72 | | | | | | |
| WM 738 | 1748378.79 | 5946530.18 | | | | | | |
| WM 739 | 1748407.22 | 5946539.98 | | | | | | |
| WM 740 | 1748408.50 | 5946540.39 | | | | | | |
| WM 741 | 1748436.89 | 5946549.92 | | | | | | |
| WM 742 | 1748450.59 | 5946554.50 | | | | | | |



- NOTES**
1. ALL WORK AND MATERIALS COMPLIES WITH AC STANDARD FOR ENGINEERING DESIGN AND CONSTRUCTION.
 2. PIPE BEDDING COMPLIES WITH AC STD DETAIL DRAWING 18000 SHEET 4.4 UNLESS OTHERWISE NOTED.
 3. WATERMAINS ARE AN AVERAGE 0.6m BELOW GROUND IN BERMS AND 0.9m BELOW GROUND UNDER ROADS. HARDFILL BACKFILLED BENEATH ROAD CROSSINGS.
 4. ALL PIPES ARE LAID 1.4m OFF THE ROAD RESERVE BOUNDARY IN THE COMMON SERVICE TRENCH.
 5. PIPE SIZES SHOWN ARE EXTERNAL DIAMETER.
 6. LOT BOUNDARIES ARE SUBJECT TO FINAL SURVEY.
 7. ASBUILT DATA HAS BEEN SOURCED FROM A COMBINATION OF WOODS SURVEY MEASURED DATA AND CONTRACTOR RECEIVED DATA.

LEGEND

| | |
|------------------------|--|
| EXISTING WATERMAIN | |
| HIGH PESSURE WATERMAIN | |
| SLUICE VALVE | |
| PEET VALVE | |
| FIRE HYDRANT | |
| BLANK CAP | |
| REDUCER | |
| STAGE BOUNDARY | |

REVISION DETAILS

| NO | DESCRIPTION | BY | DATE |
|----|------------------------|----|----------|
| 1 | ISSUED FOR INFORMATION | KR | 17/10/19 |
| 2 | ISSUED FOR 224c | KR | 4/11/19 |

| | | |
|----------|-------|--|
| SURVEYED | WOODS | WOODS Ltd LEVEL 1 BUILDING B 8 NUGENT STREET, GRAFTON AUCKLAND 1023 09 308 9229 WOODS.CO.NZ |
| DESIGNED | TB | |
| DRAWN | SK | |
| CHECKED | BO | |
| APPROVED | JW | |

MILLDALE
Connecting Lives

**MILLDALE
STAGE 2C**

**WATERMAIN
ASBUILT PLAN
SHEET 6 OF 7**

| | | |
|---------|--------------------|-----|
| STATUS | AS-BUILT | REV |
| SCALE | 1 : 500 @ A3 | 2 |
| COUNCIL | AUCKLAND COUNCIL | |
| DWG NO | P18-006-02C-605-AB | |

WATERCARE SERVICES LTD

Network As-built Approval

As-built Number: 85746

Engineer: [Signature]

Date: 10-12-2019

I certify that these As-built Plans are an accurate record of the works undertaken and that:

- The coordinates (X,Y) are in terms of NZTM on NZGD2000
- The Levels (Z) are in terms of Auckland Vertical Datum 1946 (MSL) LINZ datum

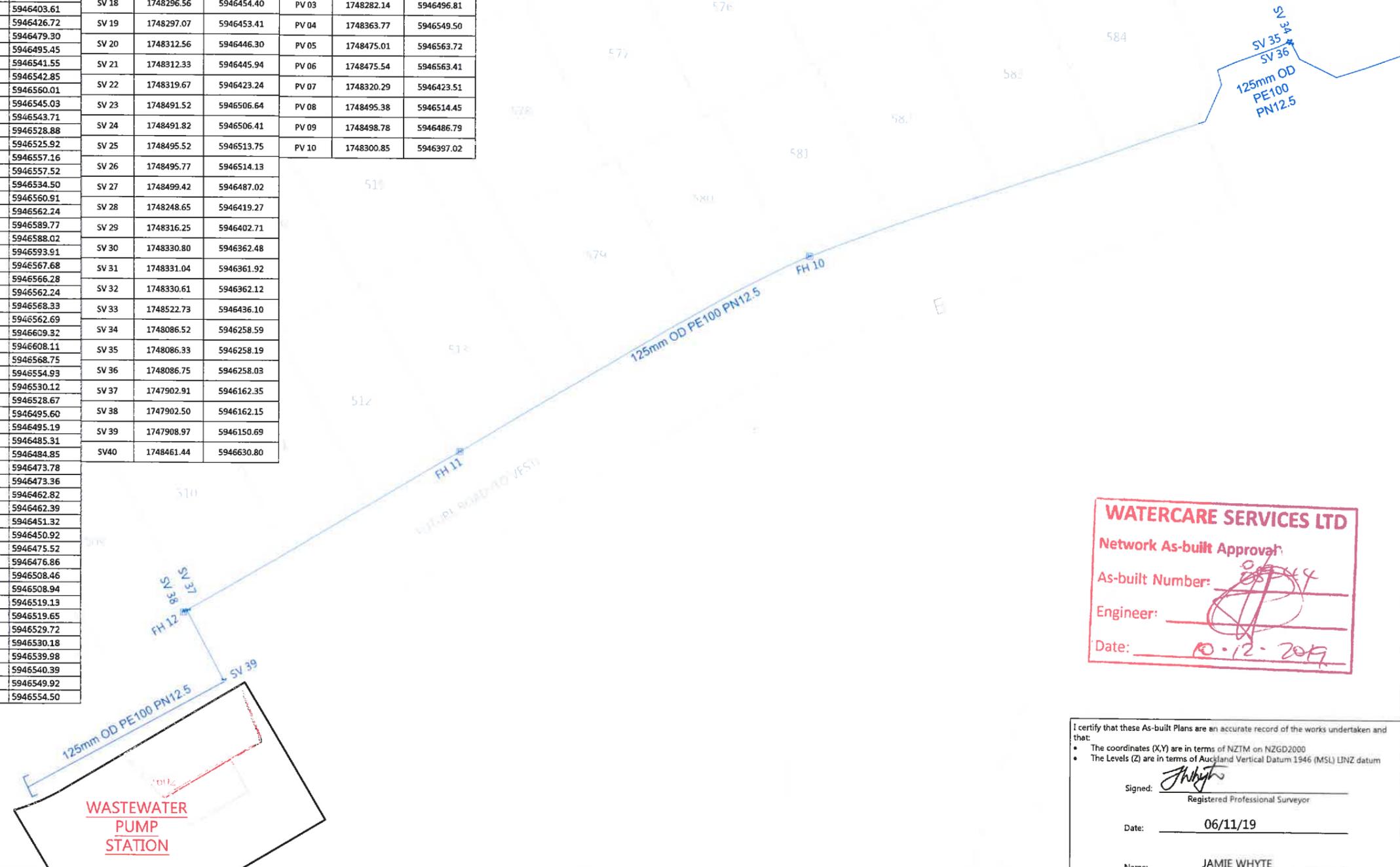
Signed: [Signature]
Registered Professional Surveyor

Date: 06/11/19

Name: JAMIE WHYTE



| SCHEDULE OF COORDINATES | | | SCHEDULE OF COORDINATES | | | SCHEDULE OF COORDINATES | | |
|-------------------------|------------|------------|-------------------------|------------|------------|-------------------------|------------|------------|
| NAME | EASTING | NORTHING | NAME | EASTING | NORTHING | NAME | EASTING | NORTHING |
| HOUSE CONNECTIONS | | | SLUICE VALVES | | | FIRE HYDRANTS | | |
| WM 655 | 1748261.82 | 5946426.25 | SV 01 | 1748247.45 | 5946497.56 | FH 01 | 1748361.28 | 5946540.53 |
| WM 666 | 1748299.14 | 5946345.38 | SV 02 | 1748252.22 | 5946485.04 | FH 02 | 1748496.09 | 5946552.36 |
| WM 667 | 1748300.55 | 5946345.85 | SV 03 | 1748251.72 | 5946484.88 | FH 03 | 1748249.10 | 5946419.44 |
| WM 668 | 1748321.76 | 5946387.78 | SV 04 | 1748277.36 | 5946509.71 | FH 04 | 1748429.32 | 5946486.14 |
| WM 669 | 1748370.12 | 5946372.50 | SV 05 | 1748277.57 | 5946508.97 | FH 05 | 1748330.64 | 5946362.85 |
| WM 670 | 1748371.56 | 5946372.91 | SV 06 | 1748277.76 | 5946509.43 | FH 06 | 1748427.57 | 5946392.86 |
| WM 671 | 1748401.28 | 5946384.48 | SV 07 | 1748281.71 | 5946495.96 | FH 07 | 1748542.26 | 5946431.60 |
| WM 672 | 1748402.67 | 5946384.97 | SV 08 | 1748364.03 | 5946548.82 | FH 08 | 1748229.79 | 5946312.25 |
| WM 673 | 1748434.81 | 5946397.30 | SV 09 | 1748364.21 | 5946549.27 | FH 09 | 1748124.16 | 5946262.42 |
| WM 674 | 1748436.23 | 5946397.75 | SV 10 | 1748376.97 | 5946553.99 | FH 10 | 1748006.51 | 5946221.96 |
| WM 675 | 1748467.42 | 5946409.28 | SV 11 | 1748377.14 | 5946553.46 | FH 11 | 1747948.22 | 5946188.98 |
| WM 676 | 1748468.72 | 5946409.68 | SV 12 | 1748468.80 | 5946580.24 | FH 12 | 1747902.13 | 5946161.92 |
| WM 677 | 1748502.64 | 5946421.56 | SV 13 | 1748469.03 | 5946580.57 | FH 13 | 1748257.76 | 5946560.28 |
| WM 678 | 1748503.93 | 5946422.13 | SV 14 | 1748469.23 | 5946580.04 | FH 14 | 1748451.70 | 5946617.96 |
| WM 679 | 1748485.21 | 5946480.83 | SV 15 | 1748276.05 | 5946442.55 | PEET VALVES | | |
| WM 680 | 1748483.87 | 5946480.30 | SV 16 | 1748276.21 | 5946441.49 | PV 01 | 1748247.03 | 5946497.80 |
| WM 681 | 1748448.89 | 5946468.77 | SV 17 | 1748276.51 | 5946441.91 | PV 02 | 1748247.76 | 5946498.01 |
| WM 682 | 1748447.56 | 5946468.35 | SV 18 | 1748296.56 | 5946454.40 | PV 03 | 1748282.14 | 5946496.81 |
| WM 683 | 1748415.49 | 5946457.25 | SV 19 | 1748297.07 | 5946453.41 | PV 04 | 1748363.77 | 5946549.50 |
| WM 684 | 1748414.16 | 5946456.80 | SV 20 | 1748312.56 | 5946446.30 | PV 05 | 1748475.01 | 5946563.72 |
| WM 685 | 1748381.00 | 5946445.19 | SV 21 | 1748312.33 | 5946445.94 | PV 06 | 1748475.54 | 5946563.41 |
| WM 686 | 1748379.58 | 5946444.71 | SV 22 | 1748319.67 | 5946423.24 | PV 07 | 1748320.29 | 5946423.51 |
| WM 687 | 1748348.05 | 5946433.38 | SV 23 | 1748491.52 | 5946506.64 | PV 08 | 1748495.38 | 5946514.45 |
| WM 688 | 1748346.78 | 5946432.84 | SV 24 | 1748491.82 | 5946506.41 | PV 09 | 1748498.78 | 5946486.79 |
| WM 689 | 1748321.15 | 5946389.12 | SV 25 | 1748495.52 | 5946513.75 | PV 10 | 1748300.85 | 5946397.02 |
| WM 690 | 1748272.07 | 5946404.08 | SV 26 | 1748495.77 | 5946514.13 | | | |
| WM 691 | 1748270.50 | 5946403.61 | SV 27 | 1748499.42 | 5946487.02 | | | |
| WM 692 | 1748263.12 | 5946426.72 | SV 28 | 1748248.65 | 5946419.27 | | | |
| WM 693 | 1748242.02 | 5946479.30 | SV 29 | 1748316.25 | 5946402.71 | | | |
| WM 694 | 1748236.66 | 5946495.45 | SV 30 | 1748330.80 | 5946362.48 | | | |
| WM 695 | 1748239.79 | 5946541.55 | SV 31 | 1748331.04 | 5946361.92 | | | |
| WM 696 | 1748239.33 | 5946542.85 | SV 32 | 1748330.61 | 5946362.12 | | | |
| WM 697 | 1748259.32 | 5946560.01 | SV 33 | 1748522.73 | 5946436.10 | | | |
| WM 698 | 1748264.18 | 5946545.03 | SV 34 | 1748086.52 | 5946258.59 | | | |
| WM 699 | 1748264.59 | 5946543.71 | SV 35 | 1748086.33 | 5946258.19 | | | |
| WM 700 | 1748269.43 | 5946528.88 | SV 36 | 1748086.75 | 5946258.03 | | | |
| WM 701 | 1748316.58 | 5946525.92 | SV 37 | 1747902.91 | 5946162.35 | | | |
| WM 702 | 1748309.18 | 5946557.16 | SV 38 | 1747902.50 | 5946162.15 | | | |
| WM 703 | 1748310.56 | 5946557.52 | SV 39 | 1747908.97 | 5946150.69 | | | |
| WM 704 | 1748340.22 | 5946534.50 | SV 40 | 1748461.44 | 5946630.80 | | | |
| WM 705 | 1748358.62 | 5946560.91 | | | | | | |
| WM 706 | 1748358.15 | 5946562.24 | | | | | | |
| WM 707 | 1748349.20 | 5946589.77 | | | | | | |
| WM 708 | 1748349.61 | 5946588.02 | | | | | | |
| WM 709 | 1748366.06 | 5946593.91 | | | | | | |
| WM 710 | 1748374.30 | 5946567.68 | | | | | | |
| WM 711 | 1748374.75 | 5946566.28 | | | | | | |
| WM 712 | 1748419.83 | 5946562.24 | | | | | | |
| WM 713 | 1748438.14 | 5946568.33 | | | | | | |
| WM 714 | 1748421.14 | 5946562.69 | | | | | | |
| WM 715 | 1748454.99 | 5946609.32 | | | | | | |
| WM 716 | 1748455.61 | 5946608.11 | | | | | | |
| WM 717 | 1748439.47 | 5946568.75 | | | | | | |
| WM 718 | 1748451.93 | 5946554.93 | | | | | | |
| WM 719 | 1748487.43 | 5946530.12 | | | | | | |
| WM 720 | 1748487.98 | 5946528.67 | | | | | | |
| WM 721 | 1748452.73 | 5946495.60 | | | | | | |
| WM 722 | 1748451.31 | 5946495.19 | | | | | | |
| WM 723 | 1748423.04 | 5946485.31 | | | | | | |
| WM 724 | 1748421.52 | 5946484.85 | | | | | | |
| WM 725 | 1748389.65 | 5946473.78 | | | | | | |
| WM 726 | 1748388.29 | 5946473.36 | | | | | | |
| WM 727 | 1748359.07 | 5946462.82 | | | | | | |
| WM 728 | 1748357.76 | 5946462.39 | | | | | | |
| WM 729 | 1748327.92 | 5946451.32 | | | | | | |
| WM 730 | 1748326.55 | 5946450.92 | | | | | | |
| WM 731 | 1748288.85 | 5946475.52 | | | | | | |
| WM 732 | 1748288.33 | 5946476.86 | | | | | | |
| WM 733 | 1748318.48 | 5946508.46 | | | | | | |
| WM 734 | 1748319.76 | 5946508.94 | | | | | | |
| WM 735 | 1748347.85 | 5946519.13 | | | | | | |
| WM 736 | 1748349.24 | 5946519.65 | | | | | | |
| WM 737 | 1748377.49 | 5946529.72 | | | | | | |
| WM 738 | 1748378.79 | 5946530.18 | | | | | | |
| WM 739 | 1748407.22 | 5946539.98 | | | | | | |
| WM 740 | 1748408.50 | 5946540.39 | | | | | | |
| WM 741 | 1748436.89 | 5946549.92 | | | | | | |
| WM 742 | 1748450.59 | 5946554.50 | | | | | | |



- NOTES**
1. ALL WORK AND MATERIALS COMPLIES WITH AC STANDARD FOR ENGINEERING DESIGN AND CONSTRUCTION.
 2. PIPE BEDDING COMPLIES WITH AC STD DETAIL DRAWING 18000 SHEET 4.4 UNLESS OTHERWISE NOTED.
 3. WATERMANS ARE AN AVERAGE 0.6m BELOW GROUND IN BERMS AND 0.9m BELOW GROUND UNDER ROADS. HARDFILL BACKFILLED BENEATH ROAD CROSSINGS.
 4. ALL PIPES ARE LAID 1.4m OFF THE ROAD RESERVE BOUNDARY IN THE COMMON SERVICE TRENCH.
 5. PIPE SIZES SHOWN ARE EXTERNAL DIAMETER.
 6. LOT BOUNDARIES ARE SUBJECT TO FINAL SURVEY.
 7. ASBUILT DATA HAS BEEN SOURCED FROM A COMBINATION OF WOODS SURVEY MEASURED DATA AND CONTRACTOR RECEIVED DATA.

LEGEND

| | |
|-------------------------|-------|
| EXISTING WATERMAIN | — |
| HIGH PRESSURE WATERMAIN | — |
| SLUICE VALVE | |
| PEET VALVE | |
| FIRE HYDRANT | |
| BLANK CAP | |
| REDUCER | |
| STAGE BOUNDARY | — — — |

| REVISION DETAILS | BY | DATE |
|--------------------------|----|----------|
| 1 ISSUED FOR INFORMATION | KR | 17/10/19 |
| 2 ISSUED FOR 224c | KR | 4/11/19 |

| SURVEYED | WOODS | WOODS Ltd LEVEL 1 BUILDING B 8 NUGENT STREET, GRAFTON AUCKLAND 1023 09 308 9229 WOODS.CO.NZ |
|----------|-------|--|
| DESIGNED | TB | |
| DRAWN | SK | |
| CHECKED | BO | |
| APPROVED | JW | |

MILLDALE
 Connecting Lives & Places

**MILLDALE
STAGE 2C**

**WATERMAIN
ASBUILT PLAN
SHEET 7 OF 7**

| STATUS | AS-BUILT | REV |
|---------|--------------------|-----|
| SCALE | 1 : 500 @ A3 | 2 |
| COUNCIL | AUCKLAND COUNCIL | |
| DWG NO | P18-006-02C-606-AB | |

WATERCARE SERVICES LTD

Network As-built Approval

As-built Number: *224c*

Engineer: *[Signature]*

Date: *10.12.2019*

I certify that these As-built Plans are an accurate record of the works undertaken and that:

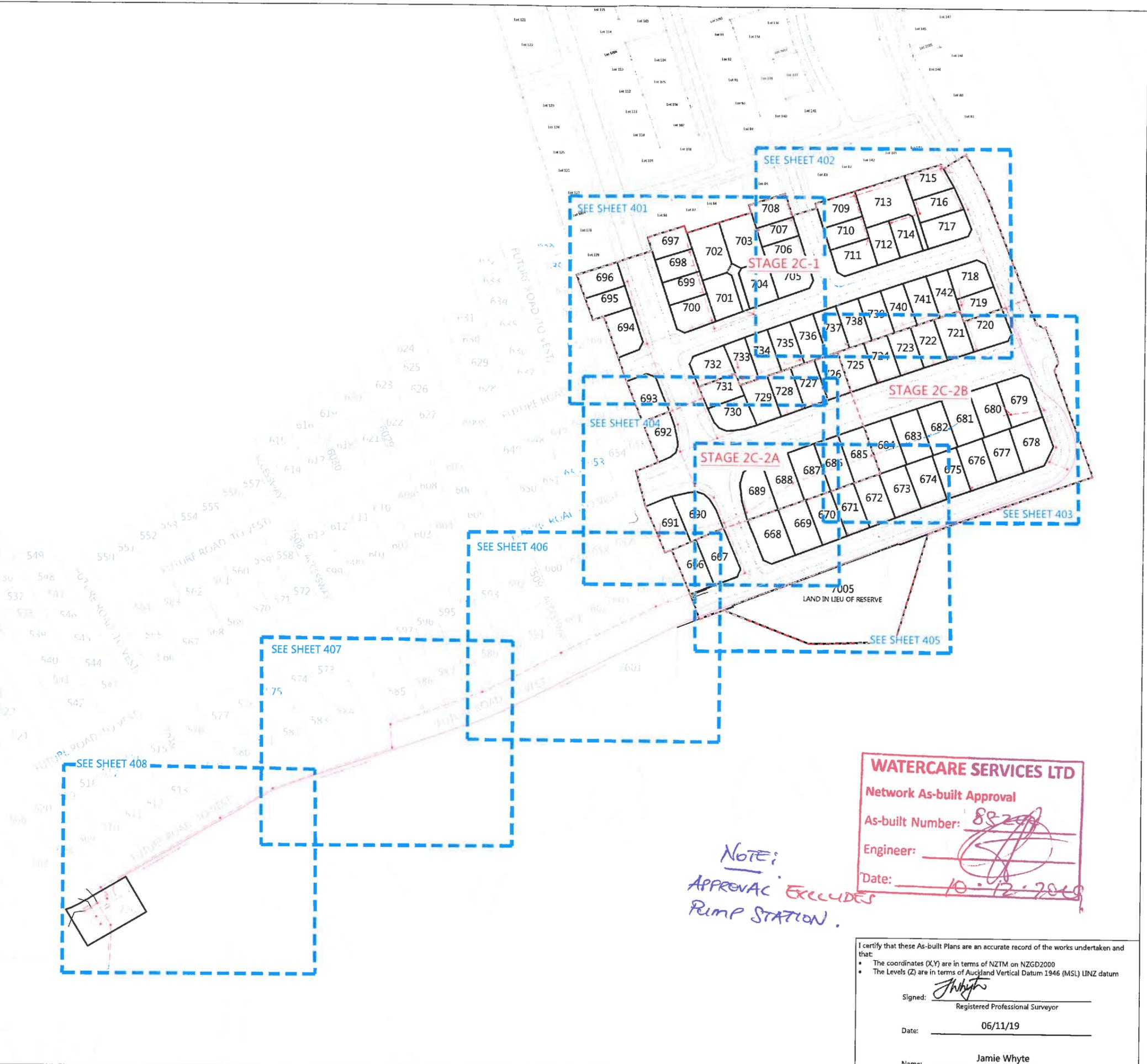
- The coordinates (X,Y) are in terms of NZTM on NZGD2000
- The Levels (Z) are in terms of Auckland Vertical Datum 1946 (MSL) LINZ datum

Signed: *[Signature]*
Registered Professional Surveyor

Date: 06/11/19

Name: JAMIE WHYTE

| SCHEDULE OF COORDINATES | | |
|---------------------------------------|------------|------------|
| SEWER LOT CONNECTIONS | | |
| NAME | EASTING | NORTHING |
| Lot 666 | 1748284.37 | 5946341.82 |
| Lot 667 | 1748301.58 | 5946348.46 |
| Lot 668 | 1748339.11 | 5946362.92 |
| Lot 669 | 1748354.60 | 5946368.49 |
| Lot 670 | 1748371.15 | 5946375.11 |
| Lot 671 | 1748387.35 | 5946381.55 |
| Lot 672 | 1748404.12 | 5946388.22 |
| Lot 673 | 1748429.52 | 5946397.68 |
| Lot 674 | 1748437.97 | 5946400.99 |
| Lot 675 | 1748454.87 | 5946407.41 |
| Lot 676 | 1748472.12 | 5946413.88 |
| Lot 677 | 1748488.55 | 5946419.24 |
| Lot 678 | 1748506.66 | 5946425.44 |
| Lot 679 | 1748510.73 | 5946463.58 |
| Lot 680 | 1748489.46 | 5946459.47 |
| Lot 681 | 1748458.69 | 5946453.80 |
| Lot 682 | 1748441.43 | 5946446.81 |
| Lot 683 | 1748425.92 | 5946441.18 |
| Lot 684 | 1748405.99 | 5946434.30 |
| Lot 685 | 1748391.19 | 5946428.64 |
| Lot 686 | 1748375.46 | 5946423.10 |
| Lot 687 | 1748358.08 | 5946417.17 |
| Lot 688 | 1748338.83 | 5946406.49 |
| Lot 689 | 1748322.20 | 5946395.45 |
| Lot 690 | 1748302.18 | 5946387.17 |
| Lot 691 | 1748279.84 | 5946381.59 |
| Lot 692 | 1748271.16 | 5946436.62 |
| Lot 693 | 1748255.16 | 5946482.93 |
| Lot 694 | 1748249.17 | 5946502.28 |
| Lot 695 | 1748240.68 | 5946532.54 |
| Lot 696 | 1748237.40 | 5946543.09 |
| Lot 697 | 1748280.27 | 5946570.68 |
| Lot 698 | 1748282.73 | 5946555.77 |
| Lot 699 | 1748288.63 | 5946538.39 |
| Lot 700 | 1748283.54 | 5946517.24 |
| Lot 701 | 1748300.52 | 5946523.38 |
| Lot 702 | 1748291.06 | 5946550.06 |
| Lot 703 | 1748324.97 | 5946579.20 |
| Lot 704 | 1748326.16 | 5946530.90 |
| Lot 705 | 1748356.34 | 5946558.66 |
| Lot 706 | 1748352.89 | 5946573.18 |
| Lot 707 | 1748347.97 | 5946585.38 |
| Lot 709 | 1748387.24 | 5946601.93 |
| Lot 710 | 1748394.14 | 5946587.05 |
| Lot 711 | 1748398.01 | 5946570.44 |
| Lot 712 | 1748411.60 | 5946584.57 |
| Lot 713 | 1748421.44 | 5946612.20 |
| Lot 714 | 1748426.64 | 5946588.99 |
| Lot 715 | 1748446.32 | 5946619.59 |
| Lot 716 | 1748453.64 | 5946606.00 |
| Lot 717 | 1748460.96 | 5946593.32 |
| Lot 718 | 1748464.27 | 5946539.02 |
| Lot 719 | 1748463.31 | 5946532.92 |
| Lot 720 | 1748466.96 | 5946521.27 |
| Lot 721 | 1748456.44 | 5946499.88 |
| Lot 722 | 1748442.56 | 5946495.46 |
| Lot 723 | 1748424.82 | 5946489.47 |
| Lot 724 | 1748407.45 | 5946483.50 |
| Lot 725 | 1748391.67 | 5946478.11 |
| Lot 726 | 1748380.03 | 5946473.82 |
| Lot 727 | 1748362.75 | 5946467.73 |
| Lot 728 | 1748346.75 | 5946461.89 |
| Lot 729 | 1748329.87 | 5946455.68 |
| Lot 730 | 1748323.59 | 5946453.12 |
| Lot 731 | 1748295.30 | 5946467.33 |
| Lot 732 | 1748288.50 | 5946481.42 |
| Lot 733 | 1748318.48 | 5946484.43 |
| Lot 734 | 1748329.96 | 5946488.24 |
| Lot 735 | 1748344.80 | 5946493.31 |
| Lot 736 | 1748356.32 | 5946497.98 |
| Lot 737 | 1748383.58 | 5946506.56 |
| Lot 738 | 1748393.87 | 5946510.43 |
| Lot 739 | 1748410.54 | 5946516.23 |
| Lot 740 | 1748422.21 | 5946520.32 |
| Lot 741 | 1748439.39 | 5946526.42 |
| Lot 742 | 1748452.98 | 5946531.12 |
| CONNECTIONS TO SERVICE FUTURE STAGES: | | |
| Lot 665 | 1748268.85 | 5946335.71 |
| Lot 656 | 1748258.02 | 5946376.89 |
| Lot 664 | 1748253.63 | 5946328.43 |
| Lot 663 | 1748238.93 | 5946321.03 |
| Lot 662 | 1748224.11 | 5946313.59 |
| Lot 661 | 1748207.41 | 5946305.22 |
| Lot 591 | 1748183.10 | 5946293.11 |
| Lot 590 | 1748169.47 | 5946286.07 |
| Lot 589 | 1748155.17 | 5946278.81 |
| Lot 588 | 1748140.65 | 5946272.65 |
| Lot 587 | 1748125.25 | 5946267.32 |
| Lot 586 | 1748109.16 | 5946261.60 |
| Lot 585 | 1748095.58 | 5946256.59 |



| LEGEND | |
|----------------------------|-----------|
| NEW SANITARY SEWER MANHOLE | |
| NEW SANITARY SEWER | |
| EXISTING SANITARY SEWER | |
| UPDATED SEWER DATA | LL= 25.53 |
| LOT BOUNDARIES | |
| STAGE BOUNDARY | |

- NOTES**
1. ALL WORKS AND MATERIALS COMPLY WITH AUCKLAND COUNCIL & WATERCARE SERVICES LTD STANDARDS FOR ENGINEERING DESIGN AND CONSTRUCTION.
 2. ALL SANITARY SEWER LINES ARE 150mmØ uPVC CLASS SN16 UNLESS STATED OTHERWISE.
 3. ALL PIPE BEDDING COMPLIES WITH WATERCARE STANDARDS.
 4. ALL PIPE CROSSINGS UNDER ROADS AND ACCESSWAYS HAVE BEEN HARDFILL BACKFILLED.
 5. ALL PRIVATE LOT CONNECTIONS ARE 100mmØ
 6. LOT BOUNDARIES ARE SUBJECT TO FINAL SURVEY.
 7. ALL PIPE AND MH DIAMETERS ARE INTERNAL, AND SHOWN IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
 8. ASBUILT DATA HAS BEEN SOURCED FROM A COMBINATION OF WOODS SURVEY MEASURED DATA AND CONTRACTOR RECEIVED DATA.

| REVISION DETAILS | | BY | DATE |
|------------------|------------------------|----|----------|
| 1 | ISSUED FOR INFORMATION | KR | 10/09/19 |
| | | | |
| | | | |

| SURVEYED | WOODS | WOODS Ltd LEVEL 1 BUILDING B 8 NUGENT STREET, GRAFTON AUCKLAND 1023 09 308 9229 WOODS.CO.NZ |
|----------|-------|--|
| DESIGNED | AF | |
| DRAWN | SK | |
| CHECKED | BO | |
| APPROVED | JW | |

N

MILLDALE
Connecting Lives to Life

MILLDALE
STAGE 2C
WASTEWATER ASBUILT
OVERALL LAYOUT
SHEET 1 of 9

| STATUS | ISSUED FOR INFORMATION | REV |
|---------|------------------------|-----|
| SCALE | 1 : 2500 @ A3 | 1 |
| COUNCIL | AUCKLAND COUNCIL | |
| DWG NO | P18-006-02C-400-AB | |

WATERCARE SERVICES LTD

Network As-built Approval

As-built Number: 88299

Engineer:

Date: 10-12-2019

NOTE:
APPROVAL EXCLUDES
PUMP STATION.

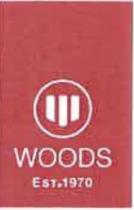
I certify that these As-built Plans are an accurate record of the works undertaken and that:

- The coordinates (X,Y) are in terms of NZTM on NZGD2000
- The Levels (Z) are in terms of Auckland Vertical Datum 1946 (MSL) LINZ datum

Signed: Registered Professional Surveyor

Date: 06/11/19

Name: Jamie Whyte



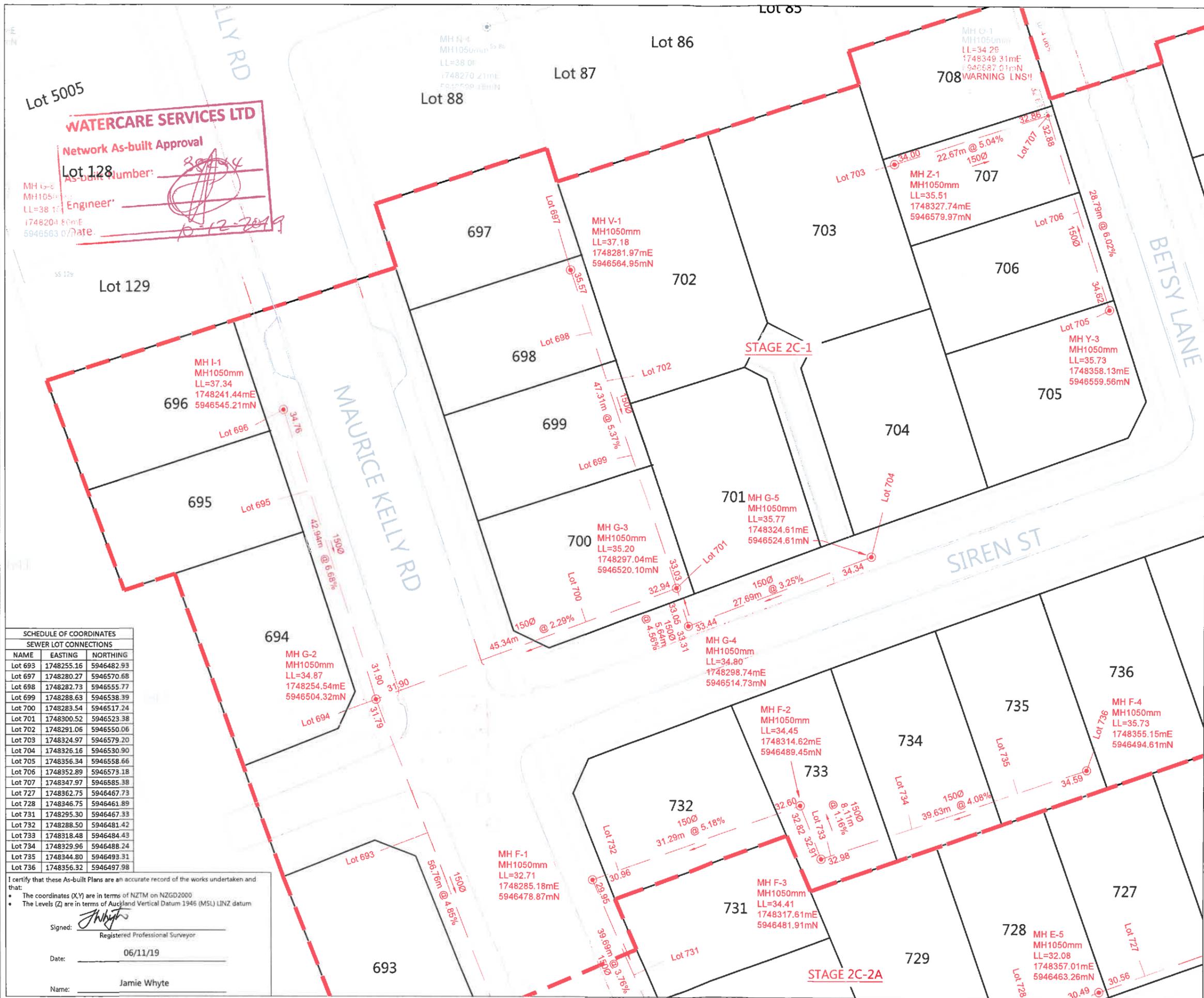
WATERCARE SERVICES LTD
 Network As-built Approval
 Lot 128
 AS-built Number: 3014
 Engineer: [Signature]
 Date: 10-12-2019

| SCHEDULE OF COORDINATES | | |
|-------------------------|------------|------------|
| SEWER LOT CONNECTIONS | | |
| NAME | EASTING | NORTHING |
| Lot 693 | 1748255.16 | 5946482.93 |
| Lot 697 | 1748280.27 | 5946570.68 |
| Lot 698 | 1748282.73 | 5946555.77 |
| Lot 699 | 1748288.63 | 5946538.39 |
| Lot 700 | 1748283.54 | 5946517.24 |
| Lot 701 | 1748300.52 | 5946523.38 |
| Lot 702 | 1748291.05 | 5946550.06 |
| Lot 703 | 1748324.97 | 5946579.20 |
| Lot 704 | 1748326.16 | 5946530.90 |
| Lot 705 | 1748356.34 | 5946558.66 |
| Lot 706 | 1748352.89 | 5946573.18 |
| Lot 707 | 1748347.97 | 5946585.38 |
| Lot 727 | 1748362.75 | 5946467.73 |
| Lot 728 | 1748346.75 | 5946461.89 |
| Lot 731 | 1748295.30 | 5946467.33 |
| Lot 732 | 1748288.50 | 5946481.42 |
| Lot 733 | 1748318.48 | 5946484.43 |
| Lot 734 | 1748329.96 | 5946488.24 |
| Lot 735 | 1748344.80 | 5946493.31 |
| Lot 736 | 1748356.32 | 5946497.98 |

I certify that these As-built Plans are an accurate record of the works undertaken and that:

- The coordinates (X,Y) are in terms of NZTM on NZGD2000
- The Levels (Z) are in terms of Auckland Vertical Datum 1946 (MSL) LINZ datum.

Signed: [Signature]
 Registered Professional Surveyor
 Date: 06/11/19
 Name: Jamie Whyte



LEGEND

| | |
|----------------------------|-----------|
| NEW SANITARY SEWER MANHOLE | ● |
| NEW SANITARY SEWER | --- |
| EXISTING SANITARY SEWER | - - - - |
| UPDATED SEWER DATA | LL= 25.53 |
| LOT BOUNDARIES | --- |
| STAGE BOUNDARY | ■■■■■ |

- NOTES**
- ALL WORKS AND MATERIALS COMPLY WITH AUCKLAND COUNCIL & WATERCARE SERVICES LTD STANDARDS FOR ENGINEERING DESIGN AND CONSTRUCTION.
 - ALL SANITARY SEWER LINES ARE 150mmØ uPVC CLASS SN16 UNLESS STATED OTHERWISE.
 - ALL PIPE BEDDING COMPLIES WITH WATERCARE STANDARDS.
 - ALL PIPE CROSSINGS UNDER ROADS AND ACCESSWAYS HAVE BEEN HARDFILL BACKFILLED.
 - ALL PRIVATE LOT CONNECTIONS ARE 100mmØ
 - LOT BOUNDARIES ARE SUBJECT TO FINAL SURVEY.
 - ALL PIPE AND MH DIAMETERS ARE INTERNAL, AND SHOWN IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
 - ASBUILT DATA HAS BEEN SOURCED FROM A COMBINATION OF WOODS SURVEY MEASURED DATA AND CONTRACTOR RECEIVED DATA.

REVISION DETAILS

| NO | ISSUED FOR INFORMATION | BY | DATE |
|----|------------------------|----|----------|
| 1 | ISSUED FOR INFORMATION | KR | 10/09/19 |

| SURVEYED | WOODS | WOODS Ltd |
|----------|-------|--------------------------|
| DESIGNED | AF | LEVEL 1 BUILDING B |
| DRAWN | SK | 8 NUGENT STREET, GRAFTON |
| CHECKED | BO | AUCKLAND 1023 |
| APPROVED | JW | 09 308 9229 |
| | | WOODS.CO.NZ |



MILLDALE
STAGE 2C
 WASTEWATER
 ASBUILT PLAN
 SHEET 2 of 9

| STATUS | ISSUED FOR INFORMATION | REV |
|---------|------------------------|-----|
| SCALE | 1:500 @ A3 | 1 |
| COUNCIL | AUCKLAND COUNCIL | |
| DWG NO | P18-006-02C-401-AB | |

I certify that these As-built Plans are an accurate record of the works undertaken and that:

- The coordinates (X,Y) are in terms of NZTM on NZGD2000
- The Levels (Z) are in terms of Auckland Vertical Datum 1946 (MSL) LINZ datum

Signed: *J Whyte*
Registered Professional Surveyor

Date: 06/11/19

Name: Jamie Whyte

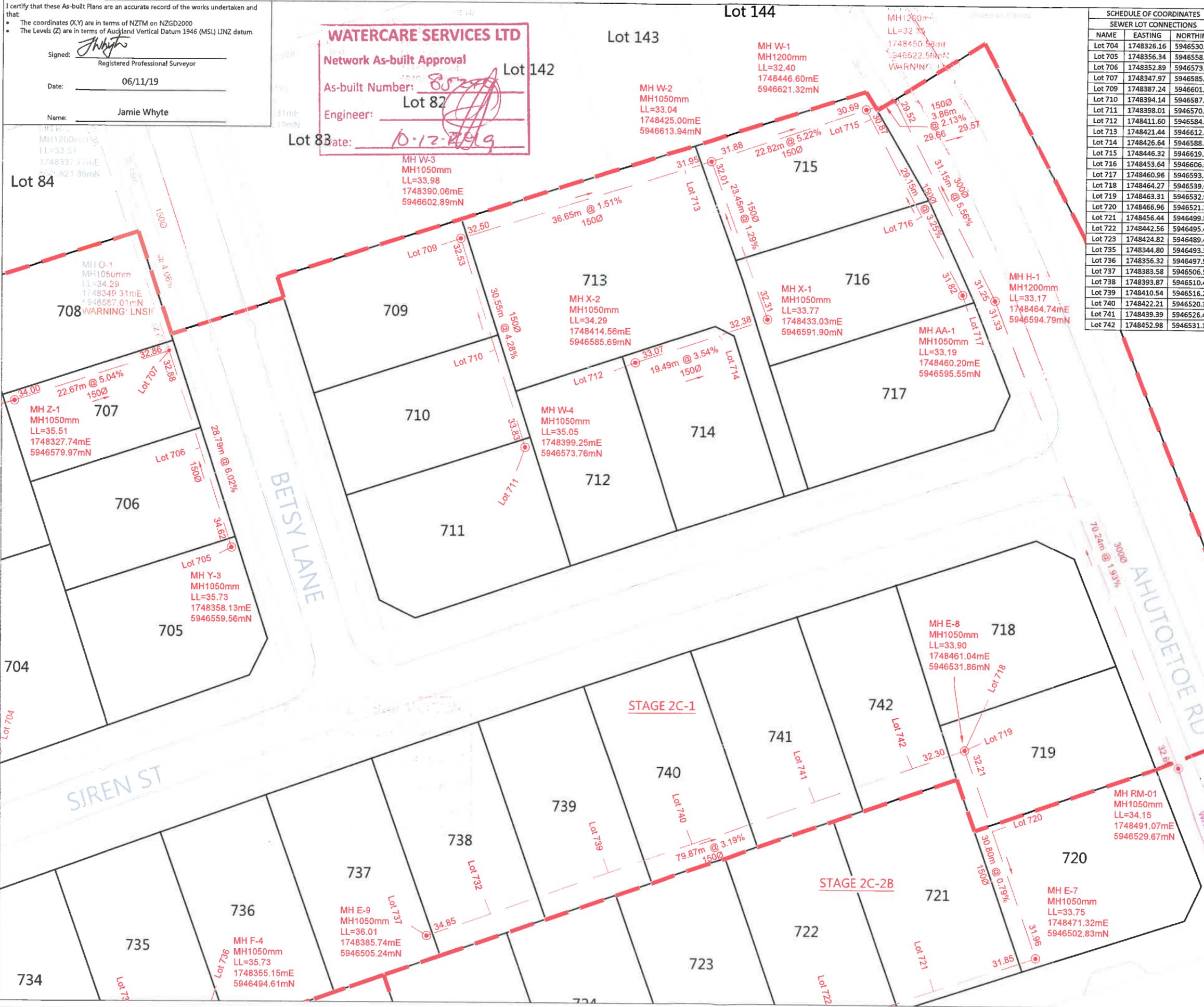
WATERCARE SERVICES LTD

Network As-built Approval

As-built Number: *80299*

Engineer: *[Signature]*

Date: *10-12-2019*



| SEWER LOT CONNECTIONS | | |
|-----------------------|------------|------------|
| NAME | EASTING | NORTHING |
| Lot 704 | 1748326.16 | 5946530.90 |
| Lot 705 | 1748356.34 | 5946558.66 |
| Lot 706 | 1748352.89 | 5946573.18 |
| Lot 707 | 1748347.97 | 5946585.38 |
| Lot 709 | 1748387.24 | 5946601.93 |
| Lot 710 | 1748394.14 | 5946587.05 |
| Lot 711 | 1748398.01 | 5946570.44 |
| Lot 712 | 1748411.60 | 5946584.57 |
| Lot 713 | 1748421.44 | 5946612.20 |
| Lot 714 | 1748426.64 | 5946588.99 |
| Lot 715 | 1748446.32 | 5946619.59 |
| Lot 716 | 1748453.64 | 5946606.00 |
| Lot 717 | 1748460.96 | 5946593.32 |
| Lot 718 | 1748464.27 | 5946539.02 |
| Lot 719 | 1748463.31 | 5946532.92 |
| Lot 720 | 1748466.96 | 5946521.27 |
| Lot 721 | 1748456.44 | 5946499.88 |
| Lot 722 | 1748442.56 | 5946495.46 |
| Lot 723 | 1748424.82 | 5946489.47 |
| Lot 735 | 1748344.80 | 5946493.31 |
| Lot 736 | 1748356.32 | 5946497.98 |
| Lot 737 | 1748383.58 | 5946506.56 |
| Lot 738 | 1748393.87 | 5946510.43 |
| Lot 739 | 1748410.54 | 5946516.23 |
| Lot 740 | 1748422.21 | 5946520.32 |
| Lot 741 | 1748439.39 | 5946526.42 |
| Lot 742 | 1748452.98 | 5946531.12 |

LEGEND

- NEW SANITARY SEWER MANHOLE (Symbol)
- NEW SANITARY SEWER (Symbol)
- EXISTING SANITARY SEWER (Symbol)
- UPDATED SEWER DATA (Symbol) LL= 25.53
- LOT BOUNDARIES (Symbol)
- STAGE BOUNDARY (Symbol)

- NOTES**
- ALL WORKS AND MATERIALS COMPLY WITH AUCKLAND COUNCIL & WATERCARE SERVICES LTD STANDARDS FOR ENGINEERING DESIGN AND CONSTRUCTION.
 - ALL SANITARY SEWER LINES ARE 150mmØ uPVC CLASS SN16 UNLESS STATED OTHERWISE.
 - ALL PIPE BEDDING COMPLIES WITH WATERCARE STANDARDS.
 - ALL PIPE CROSSINGS UNDER ROADS AND ACCESSWAYS HAVE BEEN HARDFILL BACKFILLED.
 - ALL PRIVATE LOT CONNECTIONS ARE 100mmØ
 - LOT BOUNDARIES ARE SUBJECT TO FINAL SURVEY.
 - ALL PIPE AND MH DIAMETERS ARE INTERNAL AND SHOWN IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
 - ASBUILT DATA HAS BEEN SOURCED FROM A COMBINATION OF WOODS SURVEY MEASURED DATA AND CONTRACTOR RECEIVED DATA.

| REVISION DETAILS | BY | DATE |
|--------------------------|----|----------|
| 1 ISSUED FOR INFORMATION | KR | 10/09/19 |

| SURVEYED | WOODS | WOODS Ltd LEVEL 1 BUILDING B 8 NUGENT STREET, GRAFTON AUCKLAND 1023 |
|----------|-------|--|
| DESIGNED | AF | |
| DRAWN | SK | |
| CHECKED | BO | 09 308 9229 |
| APPROVED | JW | WOODS.CO.NZ |



**MILLDALE
STAGE 2C
WASTEWATER
ASBUILT PLAN
SHEET 3 of 9**

| STATUS | ISSUED FOR INFORMATION | REV |
|---------|------------------------|-----|
| SCALE | 1 : 500 @ A3 | 1 |
| COUNCIL | AUCKLAND COUNCIL | |
| DWG NO | P18-006-02C-402-AB | |





| SCHEDULE OF COORDINATES | | |
|-------------------------|------------|------------|
| SEWER LOT CONNECTIONS | | |
| NAME | EASTING | NORTHING |
| Lot 671 | 1748387.35 | 5946381.55 |
| Lot 672 | 1748404.12 | 5946388.22 |
| Lot 673 | 1748429.52 | 5946397.68 |
| Lot 674 | 1748437.97 | 5946400.99 |
| Lot 675 | 1748454.87 | 5946407.41 |
| Lot 676 | 1748472.12 | 5946413.88 |
| Lot 677 | 1748488.55 | 5946419.24 |
| Lot 678 | 1748506.66 | 5946425.44 |
| Lot 679 | 1748510.73 | 5946463.58 |
| Lot 680 | 1748489.46 | 5946459.47 |
| Lot 681 | 1748458.69 | 5946453.80 |
| Lot 682 | 1748441.43 | 5946446.91 |
| Lot 683 | 1748425.92 | 5946441.18 |
| Lot 684 | 1748405.99 | 5946434.30 |
| Lot 685 | 1748391.19 | 5946428.64 |
| Lot 686 | 1748375.46 | 5946423.10 |
| Lot 720 | 1748466.96 | 5946521.27 |
| Lot 721 | 1748456.44 | 5946499.88 |
| Lot 722 | 1748442.56 | 5946495.46 |
| Lot 723 | 1748424.82 | 5946489.47 |
| Lot 724 | 1748407.45 | 5946483.50 |
| Lot 725 | 1748391.67 | 5946478.11 |
| Lot 726 | 1748380.03 | 5946473.82 |
| Lot 737 | 1748383.58 | 5946506.56 |
| Lot 738 | 1748393.87 | 5946510.43 |
| Lot 739 | 1748410.54 | 5946516.23 |
| Lot 740 | 1748422.21 | 5946520.32 |

| LEGEND | |
|----------------------------|------------|
| NEW SANITARY SEWER MANHOLE | |
| NEW SANITARY SEWER | |
| EXISTING SANITARY SEWER | |
| UPDATED SEWER DATA | LL = 25.53 |
| LOT BOUNDARIES | |
| STAGE BOUNDARY | |

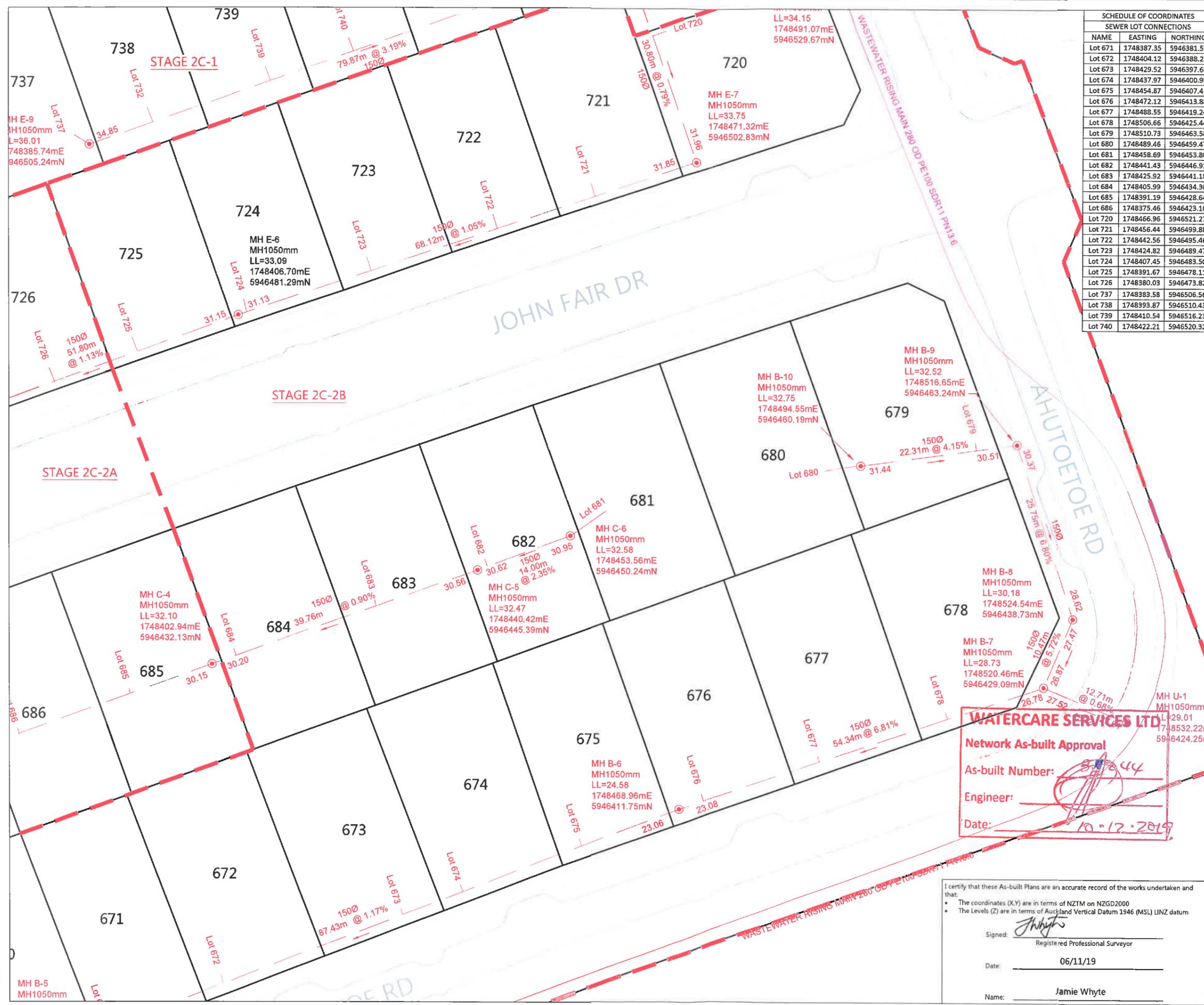
- NOTES**
- ALL WORKS AND MATERIALS COMPLY WITH AUCKLAND COUNCIL & WATERCARE SERVICES LTD STANDARDS FOR ENGINEERING DESIGN AND CONSTRUCTION.
 - ALL SANITARY SEWER LINES ARE 150mmØ uPVC CLASS SN16 UNLESS STATED OTHERWISE.
 - ALL PIPE BEDDING COMPLIES WITH WATERCARE STANDARDS.
 - ALL PIPE CROSSINGS UNDER ROADS AND ACCESSWAYS HAVE BEEN HARDFILL BACKFILLED.
 - ALL PRIVATE LOT CONNECTIONS ARE 100mmØ
 - LOT BOUNDARIES ARE SUBJECT TO FINAL SURVEY.
 - ALL PIPE AND MH DIAMETERS ARE INTERNAL, AND SHOWN IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
 - ASBUILT DATA HAS BEEN SOURCED FROM A COMBINATION OF WOODS SURVEY MEASURED DATA AND CONTRACTOR RECEIVED DATA.

| REVISION DETAILS | | BY | DATE |
|------------------|------------------------|----|----------|
| 1 | ISSUED FOR INFORMATION | KR | 10/09/19 |

| SURVEYED | WOODS | WOODS Ltd LEVEL 1 BUILDING B 8 NUGENT STREET, GRAFTON AUCKLAND 1023 09 308 9229 WOODS.CO.NZ |
|----------|-------|--|
| DESIGNED | AF | |
| DRAWN | SK | |
| CHECKED | BO | |
| APPROVED | JW | |

MILLDALE
STAGE 2C
WASTEWATER
ASBUILT PLAN
SHEET 4 of 9

| STATUS | ISSUED FOR INFORMATION | REV |
|---------|------------------------|-----|
| SCALE | 1 : 500 @ A3 | 1 |
| COUNCIL | AUCKLAND COUNCIL | |
| DWG NO | P18-006-02C-403-AB | |

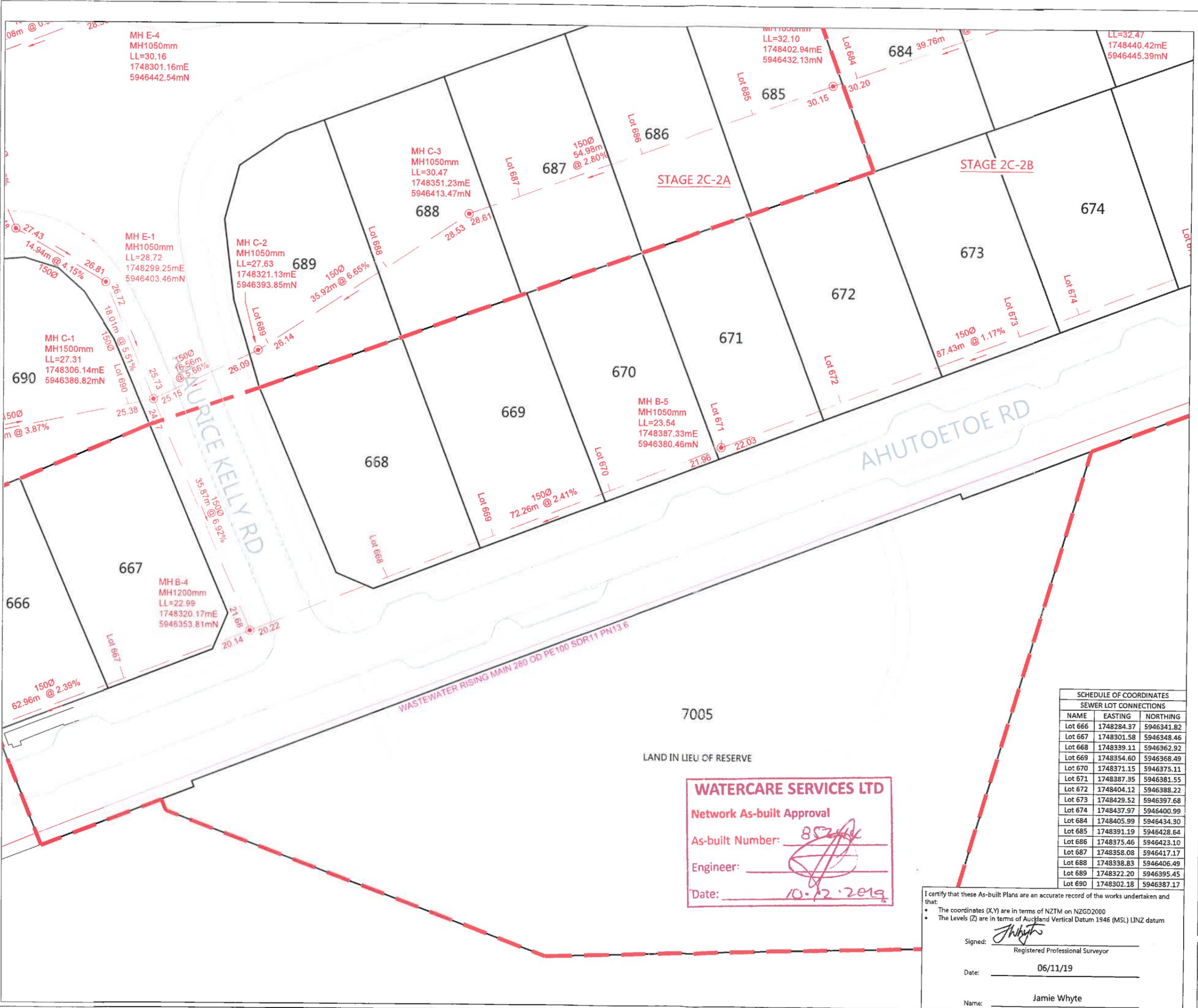
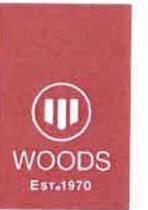


WATERCARE SERVICES LTD
Network As-built Approval
As-built Number: 97744
Engineer: [Signature]
Date: 10.12.2019

I certify that these As-built Plans are an accurate record of the works undertaken and that:

- The coordinates (X,Y) are in terms of NZTM on NZGD2000
- The Levels (Z) are in terms of Auckland Vertical Datum 1946 (MSL) LINZ datum

Signed: [Signature]
Registered Professional Surveyor
Date: 06/11/19
Name: Jamie Whyte



LEGEND

| | |
|----------------------------|-----------|
| NEW SANITARY SEWER MANHOLE | |
| NEW SANITARY SEWER | |
| EXISTING SANITARY SEWER | |
| UPDATED SEWER DATA | LL= 25.53 |
| LOT BOUNDARIES | |
| STAGE BOUNDARY | |

- NOTES**
1. ALL WORKS AND MATERIALS COMPLY WITH AUCKLAND COUNCIL & WATERCARE SERVICES LTD STANDARDS FOR ENGINEERING DESIGN AND CONSTRUCTION.
 2. ALL SANITARY SEWER LINES ARE 150mmØ uPVC CLASS SN16 UNLESS STATED OTHERWISE.
 3. ALL PIPE BEDDING COMPLIES WITH WATERCARE STANDARDS.
 4. ALL PIPE CROSSINGS UNDER ROADS AND ACCESSWAYS HAVE BEEN HARDFILL BACKFILLED.
 5. ALL PRIVATE LOT CONNECTIONS ARE 100mmØ
 6. LOT BOUNDARIES ARE SUBJECT TO FINAL SURVEY.
 7. ALL PIPE AND MH DIAMETERS ARE INTERNAL, AND SHOWN IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
 8. ASBUILT DATA HAS BEEN SOURCED FROM A COMBINATION OF WOODS SURVEY MEASURED DATA AND CONTRACTOR RECEIVED DATA.

REVISION DETAILS

| NO | DESCRIPTION | BY | DATE |
|----|------------------------|----|----------|
| 1 | ISSUED FOR INFORMATION | KR | 10/09/19 |

| | | |
|----------|-------|--|
| SURVEYED | WOODS | WOODS Ltd LEVEL 1 BUILDING B 8 NUGENT STREET, GRAFTON AUCKLAND 1023 09 308 9229 WOODS.CO.NZ |
| DESIGNED | AF | |
| DRAWN | SK | |
| CHECKED | BO | |
| APPROVED | JW | |

SCHEDULE OF COORDINATES
SEWER LOT CONNECTIONS

| NAME | EASTING | NORTHING |
|---------|------------|------------|
| Lot 666 | 1748284.37 | 5946341.82 |
| Lot 667 | 1748301.58 | 5946348.46 |
| Lot 668 | 1748339.11 | 5946362.92 |
| Lot 669 | 1748354.60 | 5946368.49 |
| Lot 670 | 1748371.15 | 5946375.11 |
| Lot 671 | 1748387.35 | 5946381.55 |
| Lot 672 | 1748404.12 | 5946388.22 |
| Lot 673 | 1748429.52 | 5946397.68 |
| Lot 674 | 1748437.97 | 5946400.99 |
| Lot 684 | 1748405.99 | 5946434.30 |
| Lot 685 | 1748391.19 | 5946428.64 |
| Lot 686 | 1748375.46 | 5946423.10 |
| Lot 687 | 1748358.08 | 5946417.17 |
| Lot 688 | 1748338.83 | 5946406.49 |
| Lot 689 | 1748322.20 | 5946395.45 |
| Lot 690 | 1748302.18 | 5946387.17 |

7005
LAND IN LIEU OF RESERVE

WATERCARE SERVICES LTD
Network As-built Approval
As-built Number: 85244
Engineer: [Signature]
Date: 10.12.2019

I certify that these As-built Plans are an accurate record of the works undertaken and that:

- The coordinates (X,Y) are in terms of NZTM on NZGD2000
- The Levels (Z) are in terms of Auckland Vertical Datum 1946 (MSL) LINZ datum

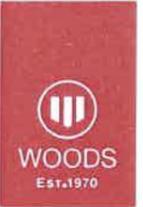
Signed: [Signature]
Registered Professional Surveyor
Date: 06/11/19
Name: Jamie Whyte



MILLDALE
STAGE 2C
WASTEWATER ASBUILT PLAN
SHEET 6 of 9

| | | |
|---------|------------------------|-----|
| STATUS | ISSUED FOR INFORMATION | REV |
| SCALE | 1:500 @ A3 | 1 |
| COUNCIL | AUCKLAND COUNCIL | |
| DWG NO | P18-006-02C-405-AB | |

| SEWER LOT CONNECTIONS | | |
|-----------------------|------------|------------|
| NAME | EASTING | NORTHING |
| Lot 666 | 1748284.97 | 5946341.82 |
| Lot 667 | 1748301.58 | 5946348.46 |
| Lot 668 | 1748339.11 | 5946362.92 |
| Lot 669 | 1748354.60 | 5946368.49 |
| Lot 670 | 1748371.15 | 5946375.11 |
| Lot 686 | 1748375.46 | 5946423.10 |
| Lot 687 | 1748358.08 | 5946417.17 |
| Lot 688 | 1748338.83 | 5946406.49 |
| Lot 689 | 1748322.20 | 5946395.45 |
| Lot 690 | 1748302.18 | 5946387.17 |
| Lot 691 | 1748279.84 | 5946381.59 |
| Lot 692 | 1748271.16 | 5946436.62 |
| Lot 693 | 1748255.16 | 5946482.93 |
| Lot 727 | 1748362.75 | 5946467.73 |
| Lot 728 | 1748346.75 | 5946461.89 |
| Lot 729 | 1748329.87 | 5946455.68 |
| Lot 730 | 1748323.59 | 5946453.12 |
| Lot 731 | 1748295.30 | 5946467.33 |



| LEGEND | |
|----------------------------|-----------|
| NEW SANITARY SEWER MANHOLE | |
| NEW SANITARY SEWER | |
| EXISTING SANITARY SEWER | |
| UPDATED SEWER DATA | LL= 25.53 |
| LOT BOUNDARIES | |
| STAGE BOUNDARY | |

- NOTES**
- ALL WORKS AND MATERIALS COMPLY WITH AUCKLAND COUNCIL & WATERCARE SERVICES LTD STANDARDS FOR ENGINEERING DESIGN AND CONSTRUCTION.
 - ALL SANITARY SEWER LINES ARE 150mmØ uPVC CLASS SN16 UNLESS STATED OTHERWISE.
 - ALL PIPE BEDDING COMPLIES WITH WATERCARE STANDARDS.
 - ALL PIPE CROSSINGS UNDER ROADS AND ACCESSWAYS HAVE BEEN HARDFILL BACKFILLED.
 - ALL PRIVATE LOT CONNECTIONS ARE 100mmØ
 - LOT BOUNDARIES ARE SUBJECT TO FINAL SURVEY.
 - ALL PIPE AND MH DIAMETERS ARE INTERNAL, AND SHOWN IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
 - ASBUILT DATA HAS BEEN SOURCED FROM A COMBINATION OF WOODS SURVEY MEASURED DATA AND CONTRACTOR RECEIVED DATA.

| REVISION DETAILS | BY | DATE |
|--------------------------|----|----------|
| 1 ISSUED FOR INFORMATION | KR | 10/09/19 |

| SURVEYED | WOODS | WOODS Ltd LEVEL 1 BUILDING 8 8 NUGENT STREET, GRAFTON AUCKLAND 1023 |
|----------|-------|--|
| DESIGNED | AF | |
| DRAWN | SK | |
| CHECKED | BO | 09 308 9229 |
| APPROVED | JW | WOODS.CO.NZ |



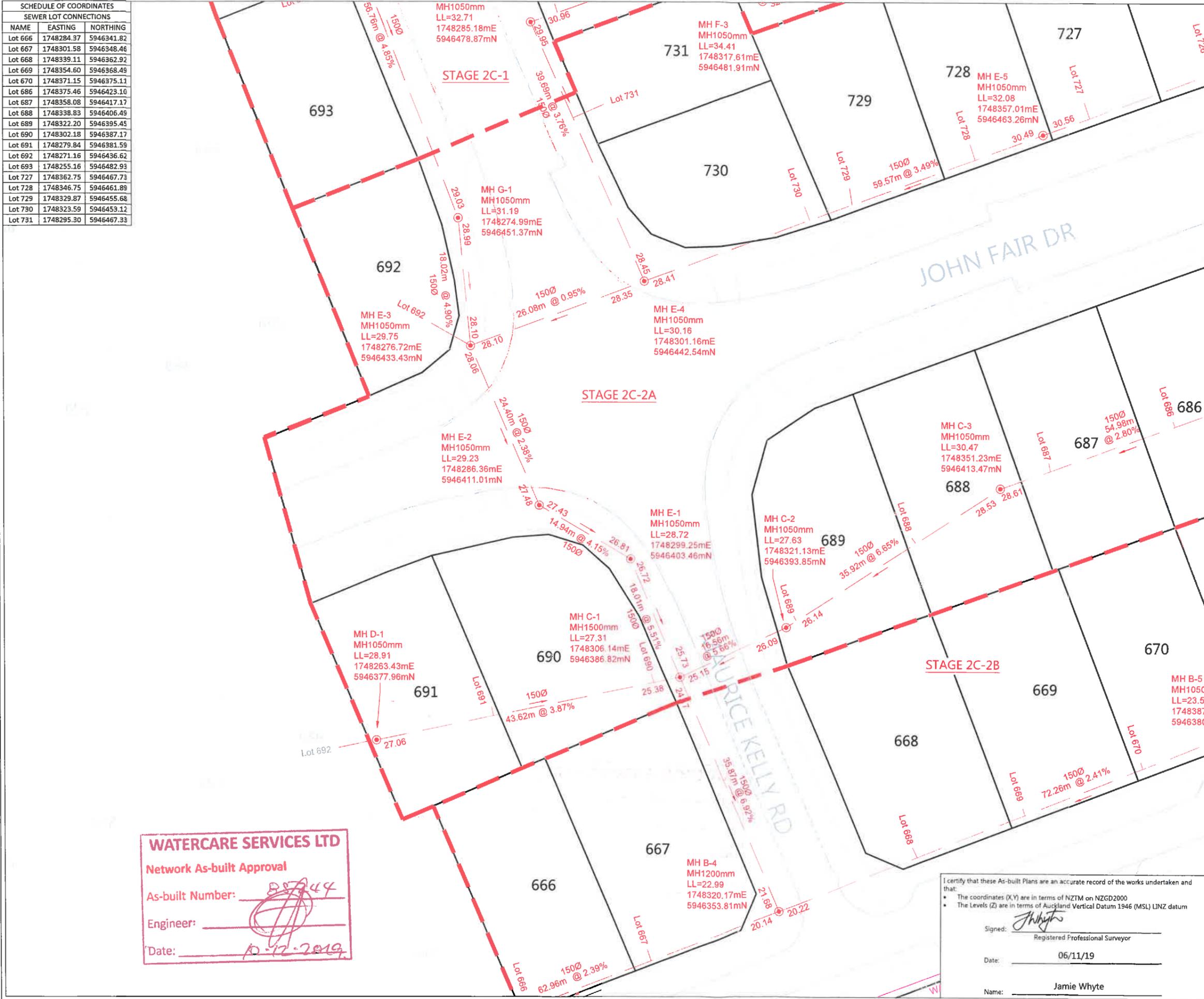
**MILLDALE
STAGE 2C
WASTEWATER
ASBUILT PLAN
SHEET 5 of 9**

| STATUS | ISSUED FOR INFORMATION | REV |
|---------|------------------------|-----|
| SCALE | 1:500 @ A3 | 1 |
| COUNCIL | AUCKLAND COUNCIL | |
| DWG NO | P18-006-02C-404-AB | |

WATERCARE SERVICES LTD
 Network As-built Approval
 As-built Number: 85744
 Engineer: [Signature]
 Date: 10-12-2019

I certify that these As-built Plans are an accurate record of the works undertaken and that:
 • The coordinates (X,Y) are in terms of NZTM on NZGD2000
 • The Levels (Z) are in terms of Auckland Vertical Datum 1946 (MSL) LINZ datum

Signed: [Signature]
 Registered Professional Surveyor
 Date: 06/11/19
 Name: Jamie Whyte





LEGEND

| | |
|----------------------------|-----------|
| NEW SANITARY SEWER MANHOLE | |
| NEW SANITARY SEWER | |
| EXISTING SANITARY SEWER | |
| UPDATED SEWER DATA | LL= 25.53 |
| LOT BOUNDARIES | |
| STAGE BOUNDARY | |

- NOTES**
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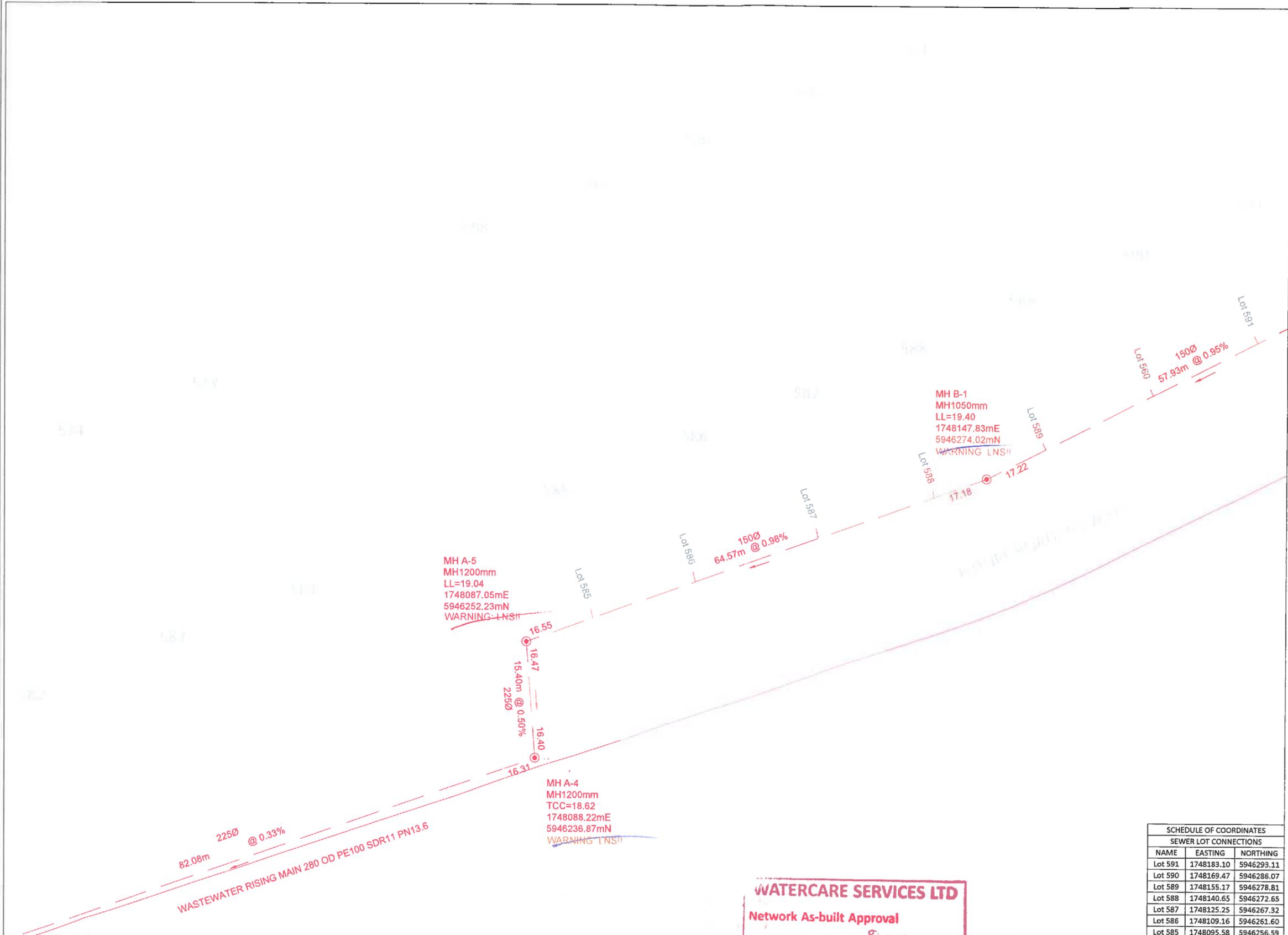
| REVISION DETAILS | | BY | DATE |
|------------------|------------------------|----|----------|
| 1 | ISSUED FOR INFORMATION | KR | 10/09/19 |
| | | | |
| | | | |

| SURVEYED | WOODS | WOODS Ltd LEVEL 1 BUILDING B 8 NUGENT STREET, GRAFTON AUCKLAND 1023 09 308 9229 WOODS.CO.NZ |
|----------|-------|--|
| DESIGNED | AF | |
| DRAWN | SK | |
| CHECKED | BO | |
| APPROVED | JW | |

MILLDALE
Connecting Lifelines

**MILLDALE
STAGE 2C
WASTEWATER
ASBUILT PLAN
SHEET 8 of 9**

| STATUS | ISSUED FOR INFORMATION | REV |
|---------|------------------------|-----|
| SCALE | 1 : 500 @ A3 | 1 |
| COUNCIL | AUCKLAND COUNCIL | |
| DWG NO | P18-006-02C-407-AB | |



SCHEDULE OF COORDINATES

| SEWER LOT CONNECTIONS | | |
|-----------------------|------------|------------|
| NAME | EASTING | NORTHING |
| Lot 591 | 1748183.10 | 5946293.11 |
| Lot 590 | 1748169.47 | 5946286.07 |
| Lot 589 | 1748155.17 | 5946278.81 |
| Lot 588 | 1748140.65 | 5946272.65 |
| Lot 587 | 1748125.25 | 5946267.32 |
| Lot 586 | 1748109.16 | 5946261.60 |
| Lot 585 | 1748095.58 | 5946256.59 |

WATERCARE SERVICES LTD

Network As-built Approval

As-built Number: 55214

Engineer:

Date: 10-11-2019

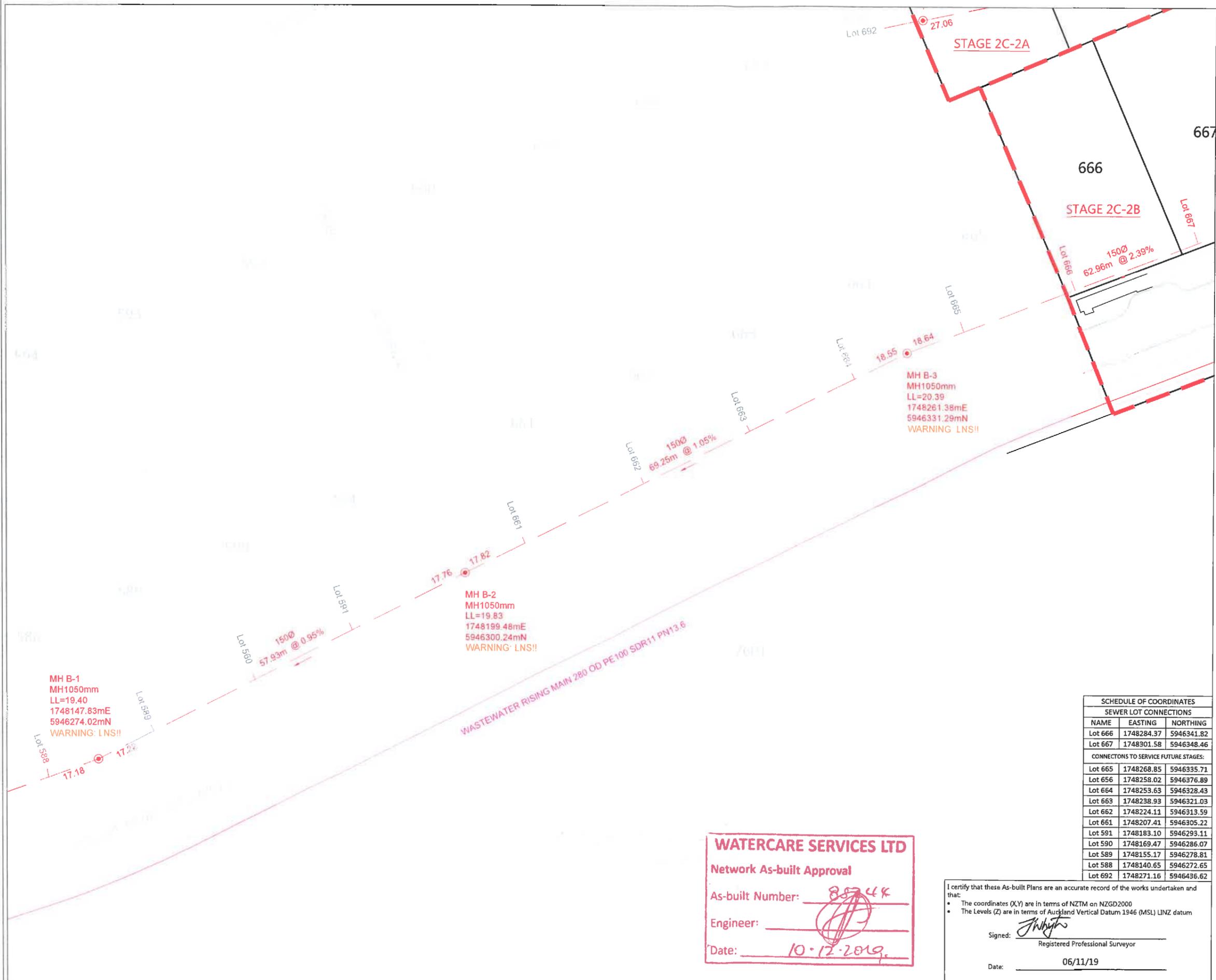
I certify that these As-built Plans are an accurate record of the works undertaken and that:

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- The Levels (Z) are in terms of Auckland Vertical Datum 1946 (MSL) LINZ datum

Signed:
Registered Professional Surveyor

Date: 06/11/19

Name: Jamie Whyte



LEGEND

- NEW SANITARY SEWER MANHOLE ●
- NEW SANITARY SEWER ---
- EXISTING SANITARY SEWER ---
- UPDATED SEWER DATA LL = 25.53
- LOT BOUNDARIES ---
- STAGE BOUNDARY - - - - -

- NOTES**
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| REVISION DETAILS | BY | DATE |
|--------------------------|----|----------|
| 1 ISSUED FOR INFORMATION | KR | 10/09/19 |

| SURVEYED | WOODS | WOODS Ltd LEVEL 1 BUILDING B 8 NUGENT STREET, GRAFTON AUCKLAND 1023 |
|----------|-------|--|
| DESIGNED | AF | |
| DRAWN | SK | |
| CHECKED | BO | 09 308 9229 |
| APPROVED | JW | WOODS.CO.NZ |

**SCHEDULE OF COORDINATES
SEWER LOT CONNECTIONS**

| NAME | EASTING | NORTHING |
|---------|------------|------------|
| Lot 666 | 1748284.37 | 5946341.82 |
| Lot 667 | 1748301.58 | 5946348.46 |
| Lot 665 | 1748268.85 | 5946335.71 |
| Lot 656 | 1748258.02 | 5946376.89 |
| Lot 664 | 1748253.63 | 5946328.43 |
| Lot 663 | 1748238.93 | 5946321.03 |
| Lot 662 | 1748224.11 | 5946313.59 |
| Lot 661 | 1748207.41 | 5946305.22 |
| Lot 591 | 1748183.10 | 5946293.11 |
| Lot 590 | 1748169.47 | 5946286.07 |
| Lot 589 | 1748155.17 | 5946278.81 |
| Lot 588 | 1748140.65 | 5946272.65 |
| Lot 692 | 1748271.16 | 5946436.62 |



**MILLDALE
STAGE 2C
WASTEWATER
ASBUILT PLAN
SHEET 7 of 9**

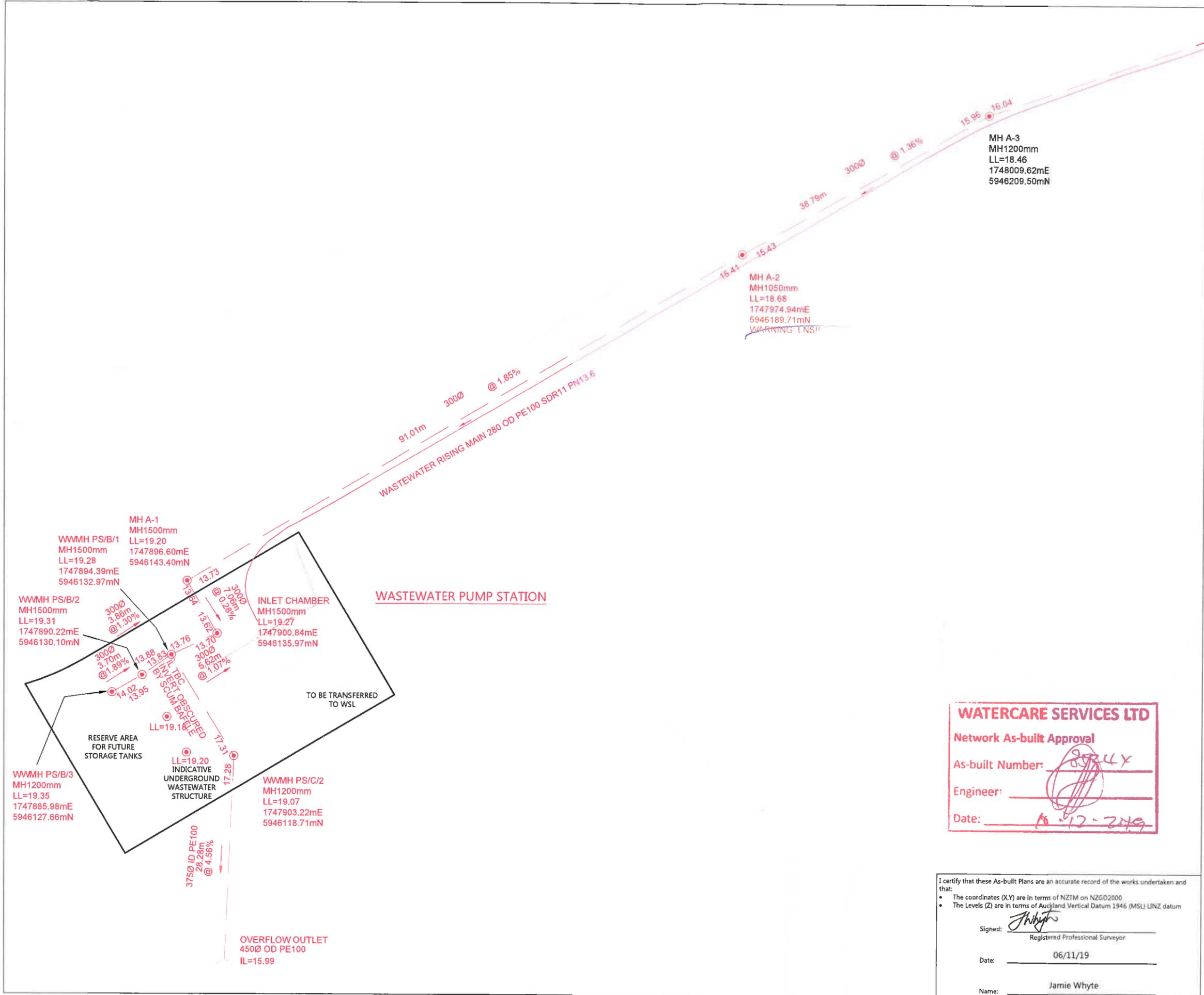
| STATUS | ISSUED FOR INFORMATION | REV |
|---------|------------------------|-----|
| SCALE | 1 : 500 @ A3 | 1 |
| COUNCIL | AUCKLAND COUNCIL | |
| DWG NO | P18-006-02C-406-AB | |

WATERCARE SERVICES LTD
 Network As-built Approval
 As-built Number: 88744
 Engineer: [Signature]
 Date: 10-12-2019

I certify that these As-built Plans are an accurate record of the works undertaken and that:

- The coordinates (X,Y) are in terms of NZTM on NZGD2000
- The Levels (Z) are in terms of Auckland Vertical Datum 1946 (MSL) LINZ datum

Signed: [Signature]
 Registered Professional Surveyor
 Date: 06/11/19
 Name: Jamie Whyte



LEGEND

| | |
|----------------------------|-----------|
| NEW SANITARY SEWER MANHOLE | |
| NEW SANITARY SEWER | |
| EXISTING SANITARY SEWER | |
| UPDATED SEWER DATA | LL= 25.53 |
| LOT BOUNDARIES | |
| STAGE BOUNDARY | |

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REVISION DETAILS

| NO | DESCRIPTION | BY | DATE |
|----|------------------------|----|----------|
| 1 | ISSUED FOR INFORMATION | KR | 10/09/19 |

| | | |
|----------|-------|--|
| SURVEYED | WOODS | WOODS Ltd LEVEL 1 BUILDING B 8 NUGENT STREET, GRAFTON AUCKLAND 1023 09 308 9229 WOODS.CO.NZ |
| DESIGNED | AF | |
| DRAWN | SK | |
| CHECKED | BO | |
| APPROVED | JW | |

WATERCARE SERVICES LTD

Network As-built Approval

As-built Number:

Engineer:

Date: 16-12-2019

I certify that these As-built Plans are an accurate record of the works undertaken and that:

- The coordinates (X,Y) are in terms of NZTM on NZGD2000
- The Levels (Z) are in terms of Auckland Vertical Datum 1946 (MSL) LINZ datum

Signed: J Whyte
Registered Professional Surveyor

Date: 06/11/19

Name: Jamie Whyte

MILLDALE
Connecting Livesigns

MILLDALE
STAGE 2C
WASTEWATER
ASBUILT PLAN
SHEET 9 of 9

| | | |
|---------|------------------------|-----|
| STATUS | ISSUED FOR INFORMATION | REV |
| SCALE | 1 : 500 @ A3 | 1 |
| COUNCIL | AUCKLAND COUNCIL | |
| DWG NO | P18-006-02C-408-AB | |

