

16<sup>th</sup> August 2017

Shahalieen Family Trust  
c/o **Thurlow Consulting Engineers & Surveyors Ltd**  
P O Box 35-405  
Browns Bay  
**AUCKLAND**

Attention : **Mark Hatten**

Dear Mark

**ENGINEERING APPROVAL – ENG60060389 for the public wastewater extension at 91 Fairview Avenue Fairview Heights**

This Engineering Approval is limited to the public wastewater reticulation works. The application for Engineering Approval has been reviewed and appears to generally meet the engineering standards of Council. On that basis (refer also 1.2.2) engineering works may proceed in accordance with the approved annotated **Thurlow Consulting Engineers** drawings no: **15287** sheets no. **DA-02 revision 01** and **DL-02 revision 00** inclusive and the following conditions:

**1. General Provisions**

- 1.1 Prior to commencing work you must obtain any other consents required to be issued under the Resource Management Act 1991 or Building Act 2004, which relate to the works approved by this Engineering Approval. The issue of this Engineering Approval shall not of itself relieve the principal and/or holder of this Engineering Approval of any duty or responsibility under any other Act relating to or affecting the proposed works.  
Works also requiring a Building Consent will include retaining walls, private drainage, and buildings exceeding 10m<sup>2</sup> in area.

**1.2 Standards, Certificates & Site Inspections**

1.2.1 Comply with:

|   |                |
|---|----------------|
| Infrastructure Design Standards Issue 10 ("IDS")  | January 2009   |
| Planting and Lawn Works Specification issued by Parks, Sports and Recreation (North) Auckland Council Version 8 | December 2012  |
| Development Engineering As-built requirements Version 1.2 ("DEAR")  | September 2012 |
| Quality Assurance Manual ("QAM") Version 1.0  | April 2012     |
| Land Development and Subdivision Infrastructure   | NZS 4404:2010  |
| Auckland Council Code of Practice for Land Development and Subdivision (CoP):                                   |                |
| Section 2 Earthworks and Geotechnical Requirements  | September 2013 |
| (Section 3) Auckland Transport Code of Practice 2013 (ATCOP)  | September 2013 |
| Chapter 4 – Stormwater Version 2  | November 2015  |
| Sections 5 & 6 Water and Wastewater Code of Practice for Land Development and Subdivision Version 1.5           | May 2015       |

And noting also the principles of IDS 1.6.1

Refer 3.2 in respect of ATCOP. IDS Section 4 still has application for kerb discharges & Op & Mtce manuals.

The CoP has precedence over IDS sections 2 – 6 unless advised in writing to the contrary. IDS Section 1 still applies.

- 1.2.2 If requested in writing, provide a design certificate in the form of Schedule 1A of NZS 4404 for all or any part of the works.

On completion of engineering works, provide a *Statement of Certification: Engineering Approval* and a *Schedule of Vested Assets* and, where applicable, a Schedule of Abandoned Assets. It is important that the works in all their details meet or exceed the standards of Council and Council rely on the Statement of Certification in that respect. Where there has been correspondence allowing an agreed variation to the standards for any particular item of work, the Statement of Certification

should be tagged accordingly. Council reserve the right not to rely on a Statement of Certification and require further audit and/or remediation and on satisfactory completion a replacement Statement of Certification.

- 1.2.3 Attend site to ensure that all works are constructed in accordance with the approved drawings and amendments thereto; QAM guidelines, the Construction Quality Plan and the IPENZ construction monitoring service level nominated therein, and sound engineering practice.

To ensure that outcomes implicit in QAM protocols are achieved, you must, as the certifying consultant, hold authority to direct and control the contractor constructing the approved works. Council may therefore require evidence that you have authority to act as Engineer to the contract as defined in NZS3910, or that equivalent authority is held or will be held.

- 1.2.4 In regard to records of Works in Progress, digital images shall be made and included in the completion documentation as required by 9.1 in the Quality Assurance Manual. Please note image requirements associated with stormwater ponds. Images shall be dated and the JPEG file name shall indicate the chainage or lot or other suitable asset identification.

- 1.3 No lime rock or cement strippings may be incorporated in any of the approved engineering works.

- 1.4 All earthworks activity on the subject site shall comply with the New Zealand Standard 6803:1999 for Acoustics – Construction Noise at all times.

- 1.5 Any damage to existing roadways that is caused by the importing of materials or machinery or any other mechanism due to the action of the owner's representatives onto or off the site shall be repaired at all costs to the owner.

- 1.6 **ADVICE NOTE:** In regard to compliance with The Health and Safety in Employment Act 1992, The Construction Act and other appropriate legislation, hazard elimination and isolation procedures shall be in place for the construction period. Particular care shall be taken to ensure that all silt ponds, or other hazardous areas or works are adequately fenced and signposted, warning the public of the potential hazard.

- 1.7 Any works or access requirements which will affect adjacent neighbouring properties, including Council owned properties i.e. parks, reserves and accessways, shall have the owners written consent, before works commence.

The following landowner approvals remain outstanding :

- a) Tracey Jiang of 85 Fairview Avenue (Lot 3 DP 488476
- b) Wenchao Huang of 85A Fairview Avenue (Lot 4 DP 488 476

- 1.8 Bonding Arrangements. The General Lot Performance Bond is non-specific and may be used by Council to complete any outstanding or maintenance works. Council Officers in conjunction with the Consultant will re-inspect the Subdivision at the end of the Maintenance Period, to identify any outstanding items.

- 1.9 Submit as-built plans in accordance with the Auckland Council DEAR for wastewater. One set of A3 size prints is required as part of the QAM documentation. These plans are also to be exported as DWG or DXF format and emailed to the responsible Development Engineer. A pdf file is also required.

Note that As Built for every new or altered lot connection ("Point of Supply" in Watercare terminology) shall be shown.

Provide a preliminary status print of the As Built drawings at the time of the As Built inspection. The plan must include lot numbers and manhole nomenclature. Confirmation is to be provided by the Land Surveyor that the reticulation suits any related drainage easements.

This office will be responsible for forwarding As Built information and manuals concerning wastewater or water supply services to Watercare Services Ltd

- 1.10 Notwithstanding that variations from the approved drawings may be necessary as site requirements become clearer, variations will not be permitted without prior liaison with and approval by, the Council.

## 1.11 Inspections

- 1.11.1 Please contact a Subdivision Engineer (SE) or Development Engineer (DE), Takapuna Service Centre so that suitable arrangements can be made for inspections required by the QAM documentation.

You would be advised in writing of any reviewed protocols that may apply in respect of the Watercare (WSL) assets or assets which are the responsibility of Auckland Transport. All WSL forms are available at their website [www.watercare.co.nz](http://www.watercare.co.nz)

In respect of the pre-construction meeting check list, please also note that WSL forms Pre-construction meeting wastewater system and Pre-construction meeting water system forms must be emailed to [inspections@water.co.nz](mailto:inspections@water.co.nz) ahead of the preconstruction meeting.

- 1.11.2 At the pre-construction meeting, and throughout the construction period, the Developer's Representative and/or the Contractor shall have, on site, copies of the following documents:

- ◆ The approved Engineering Plans, Specifications and this Approval Letter, together with any approved Amended Plans and the relevant Approval Letter(s);
- ◆ The site specific Health and Safety Plan ;
- ◆ The Signed Consent(s) to Enter as per 1.7 above;
- ◆ The relevant Resource or Subdivision Consent (and all conditions attached thereto);
- ◆ Copies of all Auckland Council Consents necessary for the works;

- 1.11.3 Unless you advise of different arrangements, which are not objected to by the DE, your office must make the risk assessment and authorise any entry into manholes by council staff. OSH and Council recognise AS/NZS 2865:2001 "Safe working in a confined space" as the recommended document for establishing good systems and practices.

ADVICE NOTE: It is recommended the contractor and/or Consultant Engineer acting for the Consent Holder, to have received NZQA recognised training for safe working in confined spaces. Any reference to Development Engineer (DE) also means Subdivision Engineer Council may periodically raise invoices to recover costs.

Complete and submit QAM documentation prior to the application for "[Engineering Approval Completion Certificate](#)". If further data and/or field test results are deemed necessary, so that the Council is able to ascertain that all subdivision works have been completed to the appropriate standards and specification, and in accordance with sound engineering practice, these requirements will be advised in writing.

Advice Note: In the case of staged project works which require an asset to be commissioned well ahead of the balance of the project, a Statement of Certification: Engineering Approval and DEAR compliant As Built records must be provided at the time of commissioning.

## 2. Geotechnical

### 2.1 Erosion and Sediment Control, Dust, Mulching

Maintain erosion and sediment control structures regularly during the course of the works.

Any proposals for additional works or new works for areas not already addressed by any approved Erosion and Sediment Control Plan, should be submitted to the Development Engineer for consideration and written approval.

Appropriate measures to control any potential dust nuisance shall be initiated and maintained throughout the course of the construction works. Council reserves the right to stop works in periods of high winds. No burning of any vegetation shall be permitted. Close neighbours shall be informed when mulching is to be undertaken and mulching applicators must take account of wind in determining methodologies and whether mulching activity should be halted until more suitable weather conditions are available.

### **3. Wastewater**

- 3.1 Construction of the public wastewater works shall comply with any technical requirements set out in the consent conditions or this letter of engineering approval, written requirements of Watercare Services Ltd (WSL) and the Water and Wastewater Code of Practice (CoP).

Riser diameter shall also take account of the number on incoming pipes and safety for foot placement by maintenance staff.

Where a connection is from a manhole or access point outside the lot, the drain shall extend into that lot by at least 1000mm and terminate with an Inspection Point. Wyes are the default means of connection to the local public WW line. The lot connection or "Point of Supply" shall be sited where it is unlikely that it will be paved over (so that access to the IP is not unduly hindered). Endcaps shall be painted red.

Any redesign requirements during the course of works must first be discussed and approved by the DE and WSL.

- 3.2 Connections to an operational Watercare Services Ltd (WSL) reticulation shall be by an Approved Drainage Contractor (ADC) only or with confirmation from WSL that the contractor is acquainted and experienced with the current standards of Auckland Council for public wastewater systems and having a current Watercare induction certificate.

The ADC must contact WSL Technical Officer at least two days of the expected date of connection to any existing reticulation, attaching the completed WSL forms "Final Inspection and Test Wastewater system" (first three sections of form completed), "Approved Contractor" and As Builts. The DE should also be advised of such request.

- 3.3 Prior to testing of the completed services, lines shall be flushed out. Debris shall not be flushed into any existing downstream reticulation.

#### **3.4 CCTV Inspection**

At the consent holder's cost, arrange for CCTV Acceptance Testing of all new wastewater lines. This inspection shall be used to check sewer alignment (vertical and horizontal), quality of jointing, pipe deformation or damage, presence of construction material or debris, location and quality of lateral connections, or any other relevant characteristics. Any remedial work subsequent to CCTV testing will be the responsibility of the developer.

The Consultant acting for the consent holder is to sign the *final* CCTV logs confirming that the CCTV video has been viewed and the pipeline meets the standards of Council; and forward the DVD and logs to the Development Engineer.

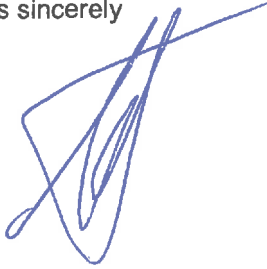
Provide two working days notice of pressure testing to WSL and the DE. An As Built print of the Wastewater services will be required for the inspection. WSL attendance would be sufficient for auditing and completion protocols for these tests and the DE may elect not to attend.

- 3.5 Construction within 10m of a rising main or trunk sewer or closer than 2m to an existing public wastewater gravity reticulation (retail network), will require an application to Watercare Services Ltd (WSL), routed through the DE. No work may proceed until WSL written conditions of approval have been received.

### **4. Engineering Approval Lapse Date**

This engineering approval lapses two years after the date of this letter, unless works are substantially complete at that time. Council reserves the right to then require design reappraisal in respect of all outstanding works and submission of revised proposals for approval of Council, in terms of the then current Auckland Council Engineering Standards.

Yours sincerely



Cedric Daniel  
**SENIOR DEVELOPMENT SUBDIVISION ENGINEER**

Attachments:

1. Approved Drawings
2. Neighbour approvals  
MK Doyle – 89 Fairview Avenue (Lot 10 DP41637)

**GENERAL NOTES:**

1. ALL AREAS AND MEASUREMENTS ARE SUBJECT TO 1:500 PHOTO SURVEY
2. CONTOURS SHOWN FOR THE PURPOSE OF THIS PLAN ONLY. CONTOUR INTERVAL = 0.20m
3. LEVELS ARE IN TERMS OF AN ASSUMED DATUM
4. LEVELS OF LEVELS, SHAFT HEADS, LID LEVELS - 100.00m REFER TO PLAN FACED
5. BEARING AND COORDINATE DATUM 2000
6. MTD EDN CIRCUIT COORDINATES 480000mN 480000mE
7. THIS PLAN IS PREPARED FOR PROPOSED MINOR UNIT AND DRAINAGE DESIGN PURPOSE ONLY
8. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND CIVIL DRAWINGS AND SPECIFICATIONS AND WITH ALL OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ALL ARCHITECT FOR DECISION BEFORE PROCEEDING WITH WORK.
9. ALL DIMENSIONS RELATIVE TO SETTING OUT OF SITE WORK SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION AND FABRICATION OF ALL STRUCTURES. DIMENSIONS DRAWINGS SHALL NOT BE SCALED.
10. DRAWINGS SUBJECT TO LOCAL AUTHORITY APPROVAL
11. UNDESIGNATED DIMENSIONS TO BE CONFIRMED ON SITE PRIOR TO DETAILED DESIGN.
12. CONTOURS ARE INTERPOLATED FROM DISCRETE SPOTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND CERTIFYING BY A REGISTERED SURVEYOR THAT THE DESIGN IS IN COMPLIANCE WITH DISTRICT PLAN REQUIREMENTS.
13. THESE NOTES ARE INTERNAL TO THE PLAN.

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 REPRODUCED SHALL BE YOUR PROPERTY FROM AN INDIVIDUAL USER ONLY

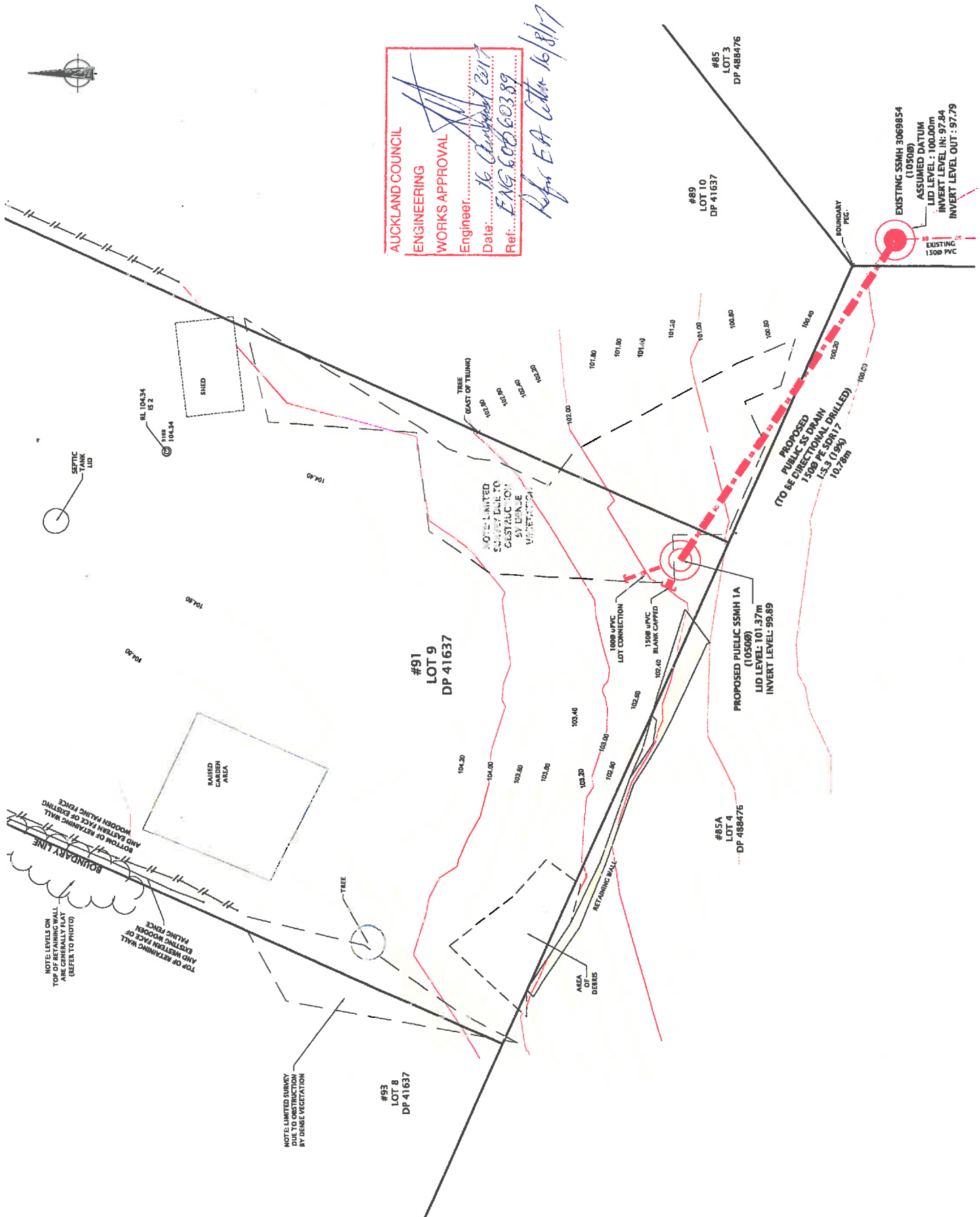
| REV | DATE  | AMENDMENT             | BY  |
|-----|-------|-----------------------|-----|
| 1   | 07/16 | FOR MICROHOUR CONSENT | SMW |
| 0   | 04/16 | INITIAL ISSUE         | MD  |

**Thurlow**  
 Consulting Engineers & Surveyors Ltd  
 35 Delta Valley Road, Albany, Auckland  
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 Email: info@thurlow.co.nz  
 Website: www.thurlow.co.nz

**SHAHALIEEN FAMILY TRUST**  
 CONTRACT/JOB TITLE  
**91 FAIRVIEW AVENUE  
 FAIRVIEW HEIGHTS**

**PROPOSED WASTEWATER PRELIMINARY ARRANGEMENT**

|             |            |               |          |
|-------------|------------|---------------|----------|
| DATE        | 04/16      | CLIENT REF NO | 15287    |
| APPROVED BY |            | DRAWING NO    | DA-02 01 |
| SCALE       | 1:50 (P&T) |               |          |



**AUCKLAND COUNCIL  
 ENGINEERING  
 WORKS APPROVAL**  
 Engineer: *[Signature]*  
 Date: 16 October 2017  
 Ref: ENG-600-603-89  
*Refer EA Letter 16/8/17*

EXISTING SSMH 3069854  
 (10500)  
 ASSUMED DATUM  
 LID LEVEL: 100.00  
 INVERT LEVEL IN: 97.94  
 INVERT LEVEL OUT: 97.79

PROPOSED PUBLIC SS DRAIN  
 1:500 PE SDR17  
 10.78m

PROPOSED PUBLIC SSMH 1A  
 LID LEVEL: 101.37m  
 INVERT LEVEL: 99.89

NOTE: LEVELS ON TOP OF RETAINING WALL ARE GENERALLY FLAT (REFER TO PHOTO)

TOP OF RETAINING WALL AND WESTERN FACE OF PALING FENCE

BOTTOM OF RETAINING WALL AND WESTERN FACE OF EXISTING WOODEN PALING FENCE

NOTE: LIMITED SURVEY DUE TO OBSTRUCTION BY DENSE VEGETATION

NOTE: LIMITED SURVEY DUE TO OBSTRUCTION BY DENSE VEGETATION

TREE (EAST OF TRUNK)

AREA DEBRIS

RETAINING WALL

1000 UPVC LOT CONNECTION

1500 UPVC BLANK CAPPED

SHED

RAISED GARDEN AREA

SEPTIC TANK LID

1108 104.34

1109 104.34

1110 104.34

1111 104.34

1112 104.34

1113 104.34

1114 104.34

1115 104.34

1116 104.34

1117 104.34

1118 104.34

1119 104.34

1120 104.34

1121 104.34

1122 104.34

1123 104.34

1124 104.34

1125 104.34

1126 104.34

1127 104.34

1128 104.34

1129 104.34

1130 104.34

- GENERAL NOTES:**
- ALL READINGS AND MEASUREMENTS ARE SUBJECT TO A LINE APPROVED SURVEY
  - CONTOURS SHOWN FOR THE PURPOSES OF THE PLAN ONLY. CONTOUR INTERVAL = 0.20m
  - LEVELS ARE IN TERMS OF AN ASSUMED DATUM  
ODJEN C/L LEVELS: 85M, 8085K4  
LID LEVEL = 100.00m (REFERS TO PLAIN FACE)
  - BEARING AND COORDINATE DATUM 2000  
MAY BEEN CIRCUIT COORDINATES  
808000m  
1080000m
  - THIS PLAN IS PREPARED FOR PROPOSED MOUND LIFT AND SHIPWAGE DESIGN PURPOSES ONLY.  
THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATIONS AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER INFORMATION AS MAY BE REQUIRED DURING THE COURSE OF THE CONTRACT. ALL DISCREPANCIES SHALL BE REFERRED TO THE ARCHITECT FOR DECISION. LIFTING SHALL PROCEED WITH MOUNTAIN.
  - ALL WORK IS TO BE SETTING OUT OF SITE WORK SHALL BE MADE BY THE CONTRACTOR BEFORE CONSTRUCTION AND FABRICATION IS COMMENCED. THE ENGINEER DRAWINGS SHALL NOT BE SCALED.
  - DRAWINGS SUBJECT TO LOCAL AUTHORITY APPROVAL
  - UNDERGROUND SERVICES TO BE CONFIRMED ON SITE PRIOR TO DETAILED DESIGN
  - CONTOURS ARE INTERPOLATED FROM DISCRETE POINTS. THE CONTRACTOR SHALL CHECK AND CHECKED AND CERTIFIED BY A REGISTERED PROFESSIONAL SURVEYOR FOR COMPLIANCE WITH DISTRICT REQUIREMENTS.
  - THESE NOTES ARE INTEGRAL TO THE PLAN

| REV | DATE  | AMENDMENT     | BY  |
|-----|-------|---------------|-----|
| 0   | 09/16 | INITIAL ISSUE | JLL |

**Thurlow**  
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CLIENT  
**SHAHALIEEN FAMILY TRUST**

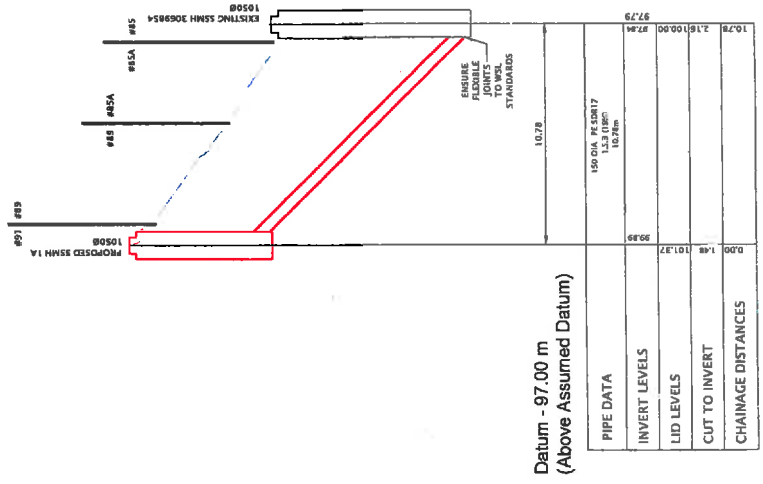
CONTRACT/JOB TITLE:  
**91 FAIRVIEW AVENUE  
 FAIRVIEW HEIGHTS**

DRAWING TITLE  
**PROPOSED  
 WASTEWATER  
 LONG SECTION**

|       |                       |             |                |
|-------|-----------------------|-------------|----------------|
| DATE  | JLL                   | DATE        | CLIENT REF NO. |
| 09/16 |                       | 09/16       | 15287          |
| SCALE | AS(8A1)<br>SHOWN(8A3) | DRAWING NO. | DL-02 00       |
|       |                       |             | SHEET 1 OF 1   |

**AUCKLAND COUNCIL**  
 ENGINEERING  
 WORKS APPROVAL  
 Engineer: *[Signature]*  
 Date: 16 August 2017  
 Ref: E.N.G. 6.0060.389

*Rupa EA Letter 16/8/17*



**LONGITUDINAL SECTION - WASTEWATER**

Datum - 97.00 m  
 (Above Assumed Datum)

Scale 1:125 (H) 1:25 (V) @ A1  
 Scale 1:250 (H) 1:50 (V) @ A3