Nikau Street
Stormwater
Realignment works
Shaft Locations

Mount Eden Road Shaft

Water Street Shaft

Nikau Street Shaft
Water Street Shaft

- Existing 1950 Stormwater to remain
- Storage containers
- Site access from Normanby Road
- Contractor parking: 7 spaces
- Excavator
- Soil storage pit
- TBM drive from Mt Eden Road launch shaft
- Proposed 1950 stormwater diversion
- Existing carpark access from Water Street closed
- EX. 1950 stormwater
- Site barrier with hoarding
- Water ST
Nikau Street Shaft

TEMPORARY TRAFFIC CONTROL REQUIRED DURING INSTALLATION OF UTILITY DIVERSIONS ACROSS STREET. ONE LANE OF TRAFFIC TO REMAIN OPEN AT ALL TIMES.
<table>
<thead>
<tr>
<th>Management Plan / Detailed Works Plans</th>
<th>Acronym</th>
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</thead>
<tbody>
<tr>
<td>Construction Environmental Management Plan</td>
<td>CEMP</td>
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<tr>
<td>Erosion and Sediment Control Plan</td>
<td>ESCP</td>
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<tr>
<td>Contamination DWP</td>
<td>CDWP</td>
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<td>Air Quality DWP</td>
<td>AQDWP</td>
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<tr>
<td>Transport, Access and Parking DWP</td>
<td>TAPDWP</td>
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<tr>
<td>Construction Noise and Vibration Management Plan</td>
<td>CNVMP</td>
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<tr>
<td>Historic Character DWP</td>
<td>HCDWP</td>
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<tr>
<td>Communication and Consultation Plan</td>
<td>CCP</td>
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<tr>
<td>Trees and Vegetation DWP</td>
<td>TVDWP</td>
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Nikau Street Stormwater Realignment

REGIONAL CONSENT APPLICATION

OUTLINE PLAN

DISTRICT CONSENT APPLICATION

CONSTRUCTION ENVIRONMENT MANAGEMENT PLAN

SUB-PLANS

Delivery Work Plans
- Construction Noise and Vibration DWP
- Transport, Access and Parking DWP
- Air Quality DWP

Trees and Vegetation DWP
- Contamination DWP
- Historic Character DWP

Management Plans
- Site Specific Erosion and Sediment Control Plan
- Communication and Consultation Plan
## Construction Programme

<table>
<thead>
<tr>
<th>Work Stages</th>
<th>Apr-17</th>
<th>May-17</th>
<th>Jun-17</th>
<th>Jul-17</th>
<th>Aug-17</th>
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<th>Nov-17</th>
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<th>Jan-18</th>
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### Site setup
(including building demolition and utility diversion/protection)

### Piling
(Not Nikau Street)

### Rockbreaking
(Nikau Street Shaft only)

### Shaft construction

### Pipe Jacking

### Permanent works and backfilling
Objective - to identify the best practicable option (BPO) to avoid, remedy or mitigate adverse effects

Plan outlines:

- Project performance standards
- Management and mitigation strategies
- Process to address effects where compliance is not practicable
Conditions Construction Noise & Vibration

Project Standards (31, 33 & 34)
Construction Noise and Vibration Delivery Work Plan (36)
Site Specific Construction Noise and Vibration Management Plans (37 & 38)
The CNV DWP details:

- Who is responsible for DWP implementation
- Project noise and vibration standards
- Predicted noise and vibration levels
- Mitigation and management measures
- Communication and complaints response
- Monitoring and reporting methods
- Review process
General measures include:

• Sensitivity awareness – staff training

• Restricted timing of some activities (e.g. piling and road cutting)

• Prioritising low noise and vibration generating methods / equipment

• Avoiding unnecessary noise and vibration (e.g. horns, squeaky tracks, engine revs)

• Use of acoustic barriers and enclosures

• Equipment maintenance
Exceedances - SSCNMP / SSCVMP

- Heavy civil works, narrow corridor, close to sensitive receivers = some predicted exceedances of the project standards
- Reliance on CNV DWP to manage effects
- SSCNVMPs to address effects of exceedances, prepared in consultation with affected parties
• Noise modelling has been undertaken for particularly busy or intense construction phases to inform the DWP.

• Based on the model predictions, SSCNMPs are required for:
  - 24 Mt Eden Rd
  - 32 Nikau St
  - 36-38 Nikau St
  - 10 Ruru St
  - 27-29 Shaddock St
  - 33 Shaddock St
  - 11 Water St & 28 Mt Eden Rd
  - 12 Boston Road
Predictions Vibration

- Based on proposed equipment types and locations during construction, SSCVMPs are required for:
  - 31 Shaddock St
Air Quality

Overview of Assessment Methodology and Assumptions

• The dust assessment for the construction project considered the potential:
  – frequency and duration of impacts on sensitive locations;
  – intensity of dust impacts based:
    » on local wind data during strong wind events, and
    » separation distance to sensitive location.
• The dust assessments were used to identify the degree of mitigation and monitoring required.
• The assessments showed a high degree of mitigation is required given the sensitive environment.
Air Quality

• Key Assessment Outcomes and Conclusions
  • Exposed unpaved areas are small and dust sources (such as from vehicle movements) are expected to be minimal. Excavated material expected to be damp.
  • However, activities sensitive to dust impacts will be close to the three construction sites and there is potential for adverse effects to occur.
  • Therefore, there is a need to control dust emissions to a high standard to avoid adverse dust effects in dry weather.

Conclusion: Provided proposed dust control measures are implemented, it is expected that potential dust effects can be controlled and will be less than minor.
Air Quality

Dust Mitigation Includes

- Dust suppression by spraying water during dry weather
- Covering unpaved areas with coarse aggregate
- Keeping vehicle speeds to 15 km/hr
- Perimeter hoardings
- Minimising size of stockpiles
- Daily checks to confirm dust is being controlled

Detailed framework for the dust management, mitigation and monitoring measures to be implemented within the Project’s Air Quality Management Plan.
Communication & Consultation Plan

Helen Hamilton, Carol Greensmith

15 November, 2016
Utilities investigation in Mt Eden Station area
Overview

- Investigation into condition of network utilities to assist with station design
- Potholing, Ground Penetrating Radar (GPR) and drainage surveys including CCTV
- Results will be used to plan utility diversions
- 16 trenches proposed for Mt Eden Station area
- Works may start as early as December 2016
- Duration of works will be 6 – 8 weeks
- Works to take place during daytime hours
Questions or Comments?