Resource Consent

FILE: 18351
(01 to 05)
Replacement (01 to 03)
New (04 and 05)

Document Date: 15.01.2019

Pursuant to the Resource Management Act 1991, the Northland Regional Council (hereinafter called "the council") does hereby grant a Resource Consent to:

FAR NORTH HOLDINGS LIMITED, PO BOX 7, OPUA 0241

To undertake the following activities associated with the placement of dredging spoil and cleanfill for site formation on Lot 12 DP 200225 Blk V Russell (Paihia Road, Opua), at or about location co-ordinates 1700900E 6090820N:

Note: All location co-ordinates in this document refer to Geodetic Datum 2000, New Zealand Transverse Mercator Projection.

AUT.018351.01.02	**Place approximately 45,000 cubic metres of dredging spoil and cleanfill earthworks from various land excavation sites.**
AUT.018351.02.02	**Discharge contaminated stormwater and leachate from dredging spoil and earthworks activities to land and water.**
AUT.018351.03.02	**Divert existing drains, floodwater and stormwater associated with site filling operations.**
AUT.018351.04.01	**Drain and place fill within a reverted wetland.**
AUT.018351.05.01	**Install a floodgate within an unnamed drain at about location co-ordinates 1700912E 6090653N.**

Subject to the following conditions:

1 The Consent Holder shall ensure that the works are undertaken generally in accordance with the **attached** Northern Civil Consulting Engineers Ltd plans and document, for Far North Holdings Ltd entitled:

(a) *"Paihia Road Dump Site - Design Sediment Control Plan",* Ref: 1311, Sheets 1 & 3, dated 18/08/07;

(b) *"Stormwater, Sediment and Erosion Control Report",* dated 24/07/06,

except that all where conflict arises between the conditions of consent and the above plans and document, then the conditions of consent shall take precedence.

2 The Consent Holder shall notify the council's Compliance Manager in writing of the date that earthworks are intended to commence, at least ten working days beforehand. The Consent Holder shall arrange for a site meeting between the contractor and the council's assigned monitoring officer, which shall be held on site prior to any earthworks commencing.

Advice Note: *Notification of the commencement of works may be made by email to mailroom@nrc.govt.nz.*

Northland REGIONAL COUNCIL

3 The Consent Holder shall provide details of the new floodgate design to the councils assigned monitoring officer, in writing, at least two weeks prior its installation and shall ensure that the new floodgate is installed prior to the placement of any fill material.

4 The Consent Holder shall prepare an "Ecological Enhancement Plan" (EEP) by a suitably qualified and experienced ecologist. A copy of the EEP shall be submitted to the councils Compliance Manager for certification prior to the commencement of the earthworks operations within any wetland areas. The EEP shall include the following:

(a) Details of the measures to be undertaken to protect, or relocate native musk plants to a suitable offsite wetland habitat;

(b) Plans detailing the location of all alternative wetland areas into which native musk plants are to be transplanted;

(c) Details of the monitoring and maintenance requirements for the successful establishment of native musk plants for an initial period of three years.

Advice Note: *A resource consent issued by Far North District Council, to the Bay of Islands Vintage Railway Trust for the construction and operation of a railway terminus at Colenso Triangle on the opposite side of SH 11, also addresses matters related to an indigenous wetland. One of the conditions of that consent requires the preparation and implementation of an "Ecological Restoration Plan" for the restoration and enhancement of the area of adjacent wetland, and it is possible that the relocation of native musk could also be accommodated within this area.*

5 Prior to the commencement of filling operations, the Consent Holder shall provide a stabilised construction entrance onto State Highway 11, to minimise the tracking of spoil or debris onto offsite road surfaces. The stabilised construction entrance shall be maintained throughout the duration of the filling operations.

6 The fill site shall be adequately secured at all times to prevent the placement of unauthorised fill onto the site.

Advice Note: *These consents authorise the placement of cleanfill and marine dredging material only. The placement of any other materials, including refuse, is not authorised by these consents.*

7 The Consent Holder shall provide the council's Compliance Manager with details of the sources of all marine dredgings and cleanfill material, in writing, at least one week prior to placement of that material, except for material associated with the Paihia Waterfront Project.

8 The Consent Holder shall ensure that erosion and sediment controls are installed, prior to the commencement of filling operations. All work shall be designed and supervised by an appropriately qualified and experienced person(s).

9 Erosion and sediment control measures shall be constructed and maintained in accordance with the principles and practices contained within the Auckland Council document entitled *"GD05: Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region"* (GD05). Where there are inconsistencies between any part of GD05 and the conditions of these consents, then the conditions of these consents shall prevail.

10 The Consent Holder may review and amend the erosion and sediment control plans specified in Condition 1, at any time, during the term of these consents in consultation with the council, for certification by the councils Compliance Manager. As a minimum, the works shall be undertaken in accordance with the most recent certified erosion and sediment control plans.

11 The maximum area of bare land exposed at any one time shall be no more than 0.5 hectares during the period 1 June to 31 October in any year, except for the year in which the placement of dredging material from the Paihia Waterfront Project occurs. All other areas of the site shall be effectively stabilised during this period to prevent erosion and sediment loss in accordance with the requirements of Condition 9 below.

12 All bare areas of land created by the exercise of these consents shall be effectively stabilised against erosion and sediment loss; within two months of their construction for the outside face of all earth bund areas, and by 30 June on all other areas in each calendar year, except during the year when dredging spoil from the Paihia Waterfront project is deposited. Stabilisation measures shall include topsoiling and establishing with suitable vegetation, to achieve not less than an 80% groundcover, the placement of rock aggregate, or covering with mulch or other erosion protection material.

13 All drains, stormwater outlets and spillways shall be constructed and maintained to continuously cater for flows of up to and including a 1 in 100 year return period rainfall event, and provided with suitable protection works to avoid erosion of land and scouring of downstream channels.

14 The Consent Holder shall maintain the drainage system to ensure that it operates effectively and efficiently at all times.

15 The discharge from the land disturbance activities shall not cause any of the following effects on the quality of the receiving waters, as measured immediately downstream of the State Highway 11 culvert, compared to a site immediately upstream of all earthworks activities, during the same sampling event:

(a) The visual clarity of the water to be reduced by more than 40%;

(b) The natural water temperature shall not be changed by more than 3° Celsius;

(c) The natural pH of the waters shall not be changed to more than 0.2 units;

(d) The production of conspicuous oil or grease films, scums or foams, floatable or suspended materials, nor emissions of objectionable odour;

(e) The destruction of natural aquatic life by reason of a concentration of toxic substances; and

(f) The concentration of metals shall not exceed the following, except where caused by natural events:

Metal	Maximum allowable concentration (milligrams per cubic metre)
Total copper	1.3
Total lead	4.4
Total zinc	15.0

16 Notwithstanding any other conditions of these consents, the discharge shall not cause the concentration of metals in sediments, as measured at or beyond any point 20 metres downstream of the railway culvert into the Coastal Marine Area, to exceed any of the following:

Metal	Maximum allowable concentration (milligrams per kilogram, dry weight)
Total arsenic	20
Total cadmium	1.5
Total chromium	80
Total copper	65
Total lead	50
Total zinc	200

Advice Note: *The results obtained from sampling need to be compared with the quality of "background" sediment samples collected within the Kawakawa River, as outlined in the monitoring programme specified in Schedule 1.*

17 The Consent Holder, or its authorised agent, shall undertake monitoring of water and sediment quality in accordance with Schedule 1 **attached**. The water and sediment quality monitoring programme may be reviewed and amended at any time, during the term of these consents in consultation with the council for certification by the councils Compliance Manager. The water and sediment quality monitoring shall be undertaken in accordance with the most recent certified version of Schedule 1.

18 The Consent Holder's operations shall not give rise to any discharge of contaminants (e.g. dust), at or beyond the property boundary, which is noxious, dangerous, offensive or objectionable to such an extent that it has, or is likely to have, an adverse effect on the environment.

19 These consents shall not lapse until their expiry.

20 The council may, in accordance with Section 128 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions annually during the month of May for any one or more of the following purposes:

(a) To deal with any adverse effects on the environment that may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or

(b) To require the adoption of the best practicable option to remove or reduce any adverse effect on the environment.

The Consent Holder shall meet all reasonable costs of any such review.

EXPIRY DATE: 30 NOVEMBER 2028

These consents are granted this Fifteenth day of January 2019 under delegated authority from the council by:

Paul Maxwell
Coastal & Works Consents Manager

SCHEDULE 1

1. WATER AND SEDIMENT QUALITY MONITORING PROGRAMME

1.1 WATER QUALITY

Routine Monitoring

Triplicate* samples of water being discharged downstream of the State Highway 11 culvert, and within the drainage system upstream of the fill site, during, or immediately following, a period of moderate to heavy rainfall shall be collected **on at least two occasions each year**. All water samples shall be collected, on the same day and preferably within the first hour of significant rainfall so as to collect the "first flush" of contaminants. Due to tidal influences on the stormwater discharges, samples shall be collected as close as possible to the time of low tide so as to achieve a true representation of stormwater quality.

Samples shall be analysed for the following:

- total suspended solids;
- total copper;
- total lead; and
- total zinc.

Background Monitoring

Triplicate* water samples shall also be collected prior to the commencement of earthworks and filling operations. These samples shall be used for comparison and shall be considered to be indicative of "background" water quality within the drainage system.

*Triplicate sampling shall involve collection of three separate samples taken at least nine minutes apart during the same sampling event. Analysis shall be conducted on a composite sample made up of equal volumes of each triplicate sample.

1.2 SEDIMENTS

Three sediment samples shall be collected from the Kawakawa River at around a 20 metre radius from the discharge point (railway culvert outlet). These samples shall be taken prior to the commencement of any filling earthworks and shall be considered to be indicative of "background" sediment quality within Kawakawa River.

The samples collected from shall be composited and analysed for the following:

- total arsenic;
- total cadmium;
- total chromium;
- total copper;
- total lead; and
- total zinc.

Sediment samples shall be collected at least annually after a prolonged dry period.

2. FIELD MEASUREMENTS, RECORDS, SAMPLE COLLECTION, SAMPLE TRANSPORT, DETECTION LIMITS, AND LABORATORY REQUIREMENTS

2.1 Records

A record of rainfall conditions preceding and during sampling shall be kept. The rainfall recorder site to be used shall be agreed to by the Northland Regional Council.

2.2 Sample Collection

All samples collected as part of this monitoring programme shall be collected using standard methods and approved containers.

2.3 Sample Transport

All samples collected as part of this monitoring programme shall be transported in accordance with standard procedures and under chain of custody to the laboratory.

2.4 Detection Limits

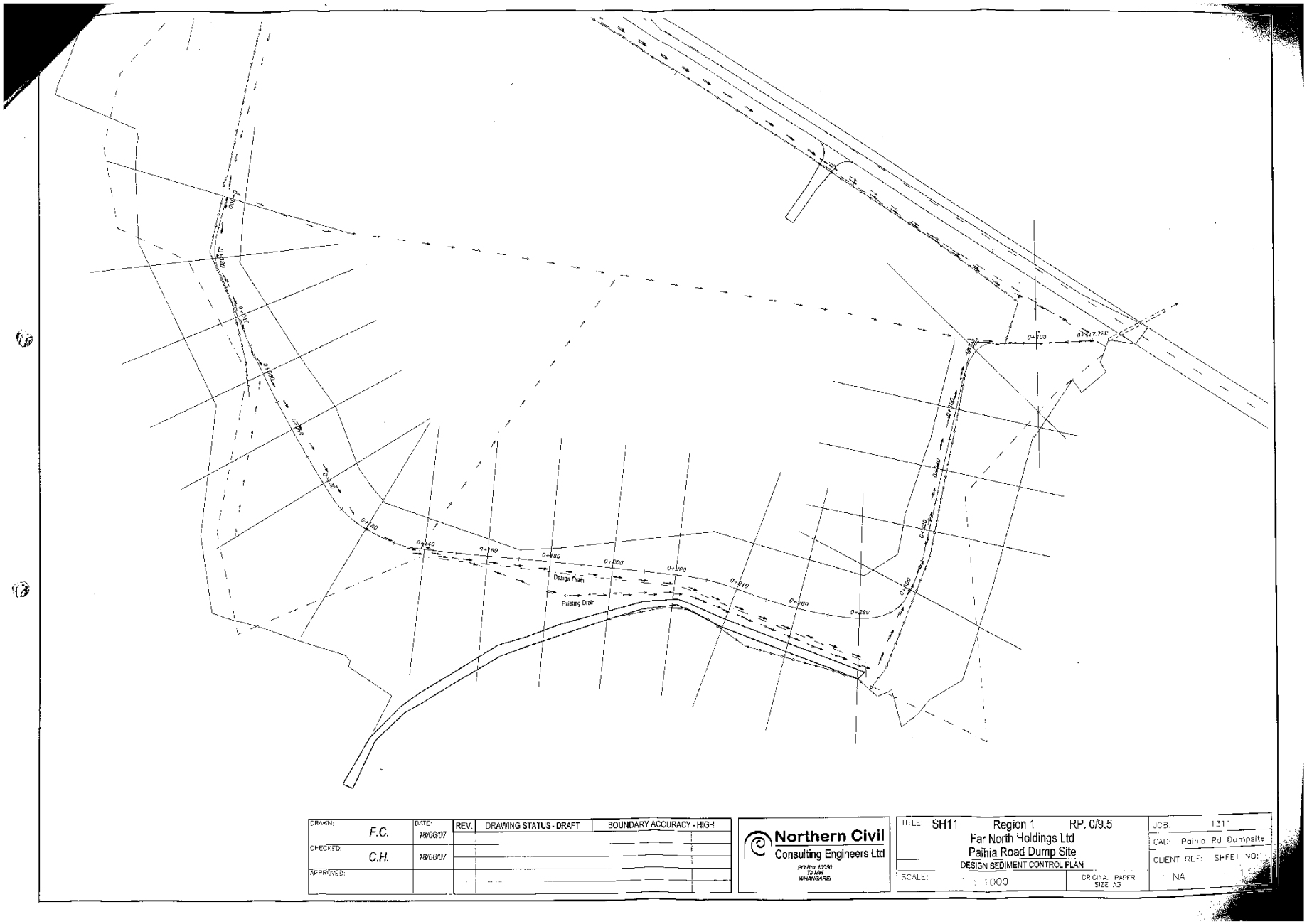
The detection limits for the analysis of metals in sediment and water samples collected shall be equivalent to, or better than, those specified below:

Metal	Sediment samples (milligrams per kilogram)	Water samples (milligrams per cubic metre)
total copper	2	1.0
total lead	0.4	0.2
total zinc	4	2.0
total arsenic	2	N/A
total cadmium	0.1	N/A
total chromium	2	N/A

2.5 Laboratory Requirements

All samples collected as part of this monitoring programme shall be analysed at a laboratory with registered quality assurance procedures (see definition below), and all analyses shall be conducted using standard methods.

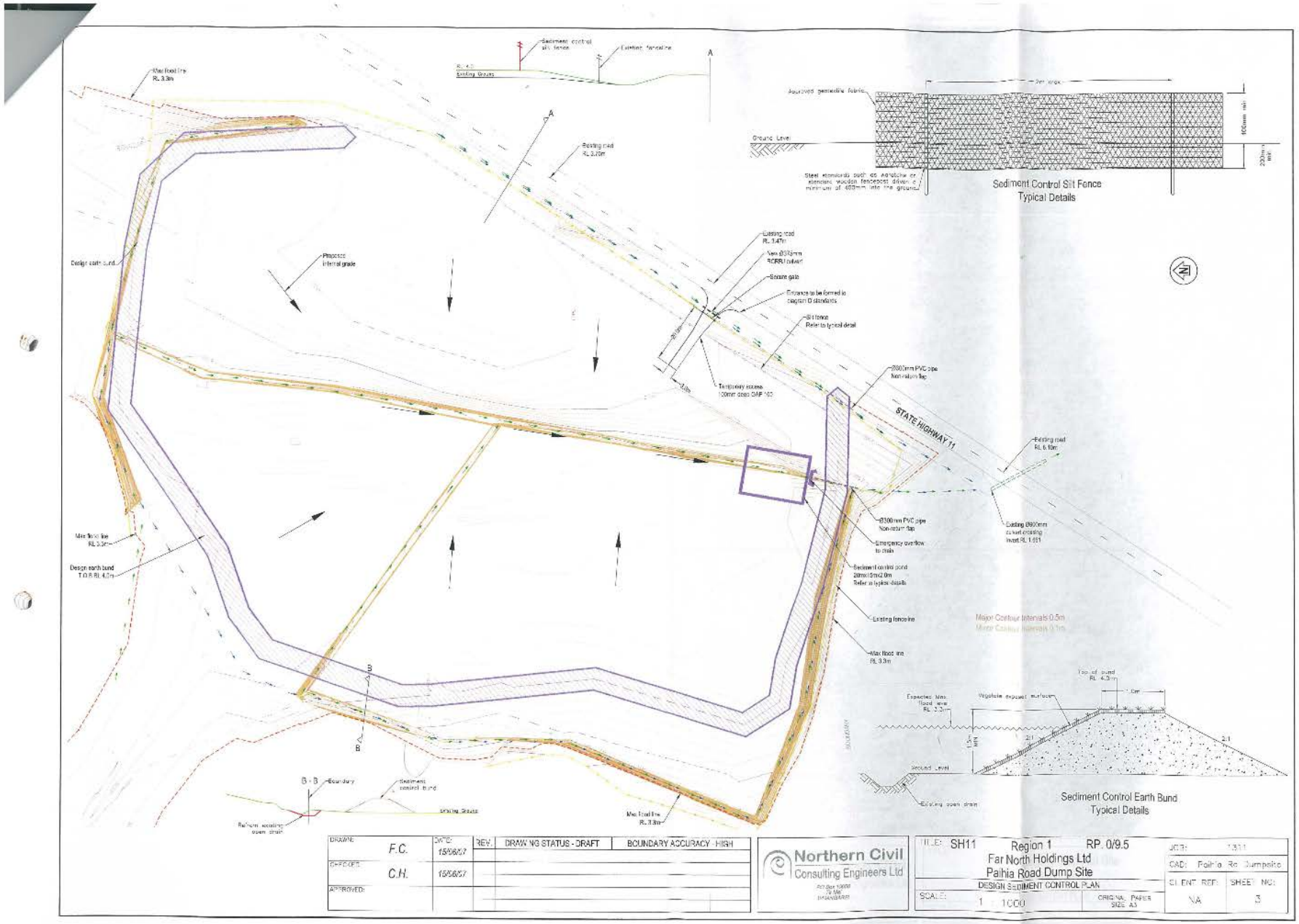
Registered quality assurance procedures are procedures that ensure that the laboratory meets good management practices and would include registrations such as ISO 9000, ISO Guide 25, and Ministry of Health Accreditation.



DRAWN: F.C.	DATE: 18/06/07	REV.	DRAWING STATUS - DRAFT	BOUNDARY ACCURACY - HIGH	
CHECKED: C.H.	18/06/07				
APPROVED:					

Northern Civil
Consulting Engineers Ltd
PO Box 10290
Te Kiri
WHANGAREI

TITLE: SH11 Region 1 RP. 0/9.5 Far North Holdings Ltd Paihia Road Dump Site DESIGN SEDIMENT CONTROL PLAN		JOB: 1311	
		CAD: Paihia Rd Dumpsite	
SCALE: 1:000	ORGINAL PAPER SIZE A3	CLIENT REF: NA	SHEET NO: 1


Sediment Control Silt Fence
Typical Details
Sediment Control Earth Bund
Typical Details
STATE HIGHWAY 11
Major Contour Intervals 0.5m
Minor Contour Intervals 0.1m
Design earth bund
Existing road
Existing fenceline
Max flood line
Emergency overflow to drain
Sediment control pond
Temporary access
Secure gate
Existing open drain
Ground Level
Boundary
DRAWN: F.C. 15/06/17
CHECKED: C.H. 15/06/17
APPROVED:
REV.
DRAWING STATUS - DRAFT
BOUNDARY ACCURACY - HIGH
Northern Civil
Consulting Engineers Ltd
TITLE: SH11 Region 1 RP. 0/9.5
Far North Holdings Ltd
Paihia Road Dump Site
DESIGN SEDIMENT CONTROL PLAN
SCALE: 1 : 1000
ORIGINAL PAPER SIZE A3
JOB: 1311
CAD: Paihia Rd Dumpsite
CLIENT REF: NA
SHEET NO: 3

FAR NORTH HOLDINGS LTD

RMA 1991 REGIONAL COUNCIL RESOURCE CONSENT

STORMATER, SEDIMENT AND EROSION CONTROL REPORT

Prepared by
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Northern Civil
Consulting Engineers Ltd

24/07/06

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FAR NORTH HOLDINGS LTD

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APPENDICES

Far North Holdings Ltd
RMA 1991 Regional Council Resource Consent Application

1 STORMATER, SEDIMENT AND EROSION CONTROL

1.1 SITE DESCRIPTION

The site is located on the western side of Paihia Road [State Highway 11] south of Opua. The legal description of the property is Lot 12, DP 200225 contained in Certificate of Title NA126B/910.

Located on the western side of the State Highway the site is a relatively flat and low-lying which is prone to surface flooding where water cannot drain away quick enough. Several open channel drains are bounding and through the property which discharge surface water to an existing 900m diameter culvert located at the south eastern corner of the property. Drains located and running parallel to the north and western boundaries mainly collect and redirect surface water from the neighbouring elevated properties which mainly help to deflect and minimize the extent of surface flooding within the property. To further aid in minimizing the extent of surface water and help dry out the soil there is an internal of open channels located within the low-lying areas of the property. At present the property is used for grazing but is limited to its efficiency due to the nature of the poor and wet ground conditions observed within a large proportion of the property. The area of land proposed for filling has an estimated RL of 2.5m (MWHS), the state highway has an RL of 3.4m with the surrounding land to the north and west rising.

1.2 GEOLOGY

According to the Bay of Islands Soils Map, dated 1980 the property is separated by Whareora Series to the north and Marua series to the south. The majority of the flat low-lying areas are predominant to the Whareora series. Both series are moderately to strongly leached and formed yellow-brown earths and related steepland soils. The surface soil condition exhibits poor fertility and tends to be saturated in winter.

The North Cape Geological Survey Map Sheet 1 (1961) refer the site to that of The Waipapa group, Permian which comprises siltstone and sandstone, marine volcanism dipping west along the eastern coastline. The flat lands present shallow sedimentary silts layered above impermeable siltstone and sandstone creating saturated surface conditions when wet.

1.3 PROPOSED WORK

The proposal is to import and deposit fill across the majority of the low-lying parts of the site to create a level platform suitable for future development. The attached plan show the extent of works proposed (refer appendix A) The existing RL's vary from 1.9m to 3.9m across the site. It is proposed to deposit material to achieve a finished design level of RL 5.4m. The overall depth of imported fill proposed will therefore vary from 1.5 to 3.5 metres and involve an approximate volume of 95,000m3 of material.

The total area to be filled extends from the northern boundary (ch#0+00) to approximately 40m back from the southern boundary (ch#0+200). Laterally the fill will start from the western side tapering at approximately 2.0m back from the top embankment of the existing open drain, which runs parallel to the western and eastern boundaries. Appendix A shows the extents.

An earth bund will be constructed to envelop and separate the existing north, east and southern open drains from the imported fill operation. The bunds will be constructed of suitable clean fill compacted formed and grassed on the exposed side to ensure contamination of the imported fill does not enter the boundary drains and further downstream. All internal surface channels will be infilled and reformed at the completion of the fill operation.

The imported fill will predominantly come from basin source within the Victoria Channel, Waikare Inlet as channel dredging and land side excavations within the Opua and Paihia surrounds. The fill brought on site for construction of the earth bunds will be clean non-hazardous material, which will be compacted in accordance with good engineering practice. Fill imported for the purpose of increasing the finished ground level to an estimated RL of 5.4m will be predominantly from dredging spoil allowing to naturally settling before final compaction is treated

Appendix A Earthworks Plan shows the extent of earthworks proposed

1.4 DURATION

The total volume of work recognized as a continuous project is expected to take a total of 20 weeks to complete at an estimated total of 100 truck movements per day. Taking into consideration the large volume of material sought it is unlikely that the work could be treated as a continuous operation but rather spread over a longer period when material suitable becomes available.

At the completion of the works and once final engineered compaction of the fill has been carried out the property will be topsoiled and grassed.

1.5 CATCHMENT

The property and surrounding catchments drain through an existing 900mm diameter culvert which crosses the state highway. The pipe capacity is approximately 1.3 cumecs (1:10yr ARI) allowing a 1m head. The estimated 1:100 event will generate 2.2cumecs, which will cause surface flooding within the property where storm and high tide event.

The existing culvert has an invert of 1.586m and at high tide RL 2.26m the pipe will be

greater than half full. Storm events greater than the 1:100 return during high tide will generate a storage requirement of 6700cu.m. over an extreme hour long event. This volume can be stored behind the bunds and rise to an estimated RL 3.2m. The top of the bunds will be designed at RL 4.0m. A conservative maximum height of 3.3m has been assumed taking into consideration extreme storm events and a factor of safety. Although storage will be extended to include the northern neighbouring property it is recognized that the existing area is low lying at an RL 1.7m to 2.5m and will currently be in flood during a similar event. Appendix B shows the existing flood level during an extreme event with the pipe over half full.

1.6 EROSION AND SEDIMENT CONTROL

Existing drainage systems are adequate and suitable to provide the discharge demands with minor up. This has been confirmed from observations made during peak storm events. It is recognised that short duration high intensity storm periods will have the most effect on erosion of earthworks where exposed soils will be vulnerable. The risk of erosion is high and methods of containment are essential.

Where construction operations are to be undertaken in erosion-prone areas or adjacent to the watercourse, excavators shall be used to enable soil and other loose material to be placed in a stable position. The use of bulldozers will be avoided where loose material can enter the watercourses or areas where it may wash into watercourses.

Supervison of sediment control setup and earthworks, will be carried out by a suitably experienced person. Various methods of erosion and sediment controls have been adopted for the project and are discussed within this report.

During the main phase of the earthworks earth bunds and sediment detention ponds will be constructed which follow ARC TP 90.

The existing boundary drains which run south to north both on the eastern and western side of the property act as primary separation drainage for water discharging from neighbouring properties and the state highway. It is proposed to separate these drains from the property by constructing an earth bund on the property side of the drains, which will act as a sediment buffer ensure no contamination of the existing drains can be experienced by the imported fill within the property. The bunds will be constructed of engineered fill and permanently grassed immediately on completion to minimize the potential for erosion.

The construction of the earth bunds and sediment control measures will be constructed to council satisfaction before any filling works begin. All internal channels will remain and act as cutoff drains for discharge to the sediment control pond. To aid in minimizing sediment transfer, once the fill site increases in coverage area, all imported fill will be grassed once primary settlement and any engineered compaction has been achieved.

1.6.1.1 Runoff Diversion Channel

A diversion channel is a non erodible channel or bund for the conveyance of runoff constructed to a site-specific cross section and grade design. The purpose of a diversion channel is to either protect work areas from upslope runoff (clean water diversion), or to

divert sediment laden water to an appropriate sediment retention structure. Applications of a diversion channel will be implemented where:

Runoff Diversion Channels/Bunds are to be used in the following situations

- To divert sediment-laden runoff from disturbed areas into sediment treatment facilities.
- At or near the perimeter of the construction area to keep sediment from leaving the site.

Keep permanent diversions in place until the disturbed area is permanently stabilised against erosion

Runoff Diversion Channels will be designed to carry the flow from the 5% AEP rainfall event (plus freeboard) and be restrict use to grades to no more than 2% unless armoured and a flow of 1m/s. Constructed with a trapezoidal cross sectional shape with internal side slopes no steeper than 3:1, and external slopes no steeper than 2:1.

Regular maintenance is required by the contractor of any diversion channels installed. Maintenance will consist of:

- Inspect after every rainfall and during periods of prolonged rainfall for scour and areas where they may breach.
- Repair immediately if required to ensure that the design capacity is maintained.
- Remove and accumulated sediment deposited in the Runoff Diversion Channel/Bund due to low gradients and velocities.
- Carefully check outlets to ensure that these remain free from scour and erosion.

1.6.1.2 Sediment Retention Pond

A temporary pond formed by excavation into natural ground and incorporating a device where required to dewater the pond at a rate that will allow suspended sediment to settle out. The purose of the sediment retention pond is to treat sediment laden runoff and reduce the volume of sediment leaving a site, thus protecting downstream environments from excessive sedimentation and water quality degradation.

The general design approach is to create an impoundment of sufficient volume to capture a significant proportion of the design runoff event, and to provide quiescent (stilling) conditions which promote the settling of suspended sediment. The sediment Retention Pond design is such that very large runoff events will receive at least partial treatment and smaller runoff events will receive a high level of treatment.

Specific design criteria will follow ARC TP 90 as a minimum.

- Use Sediment Retention Ponds for bare areas of bulk earthworks of 0.3 ha or greater.
- Restrict catchment areas to less than 5.0 ha per Sediment Retention Ponds. This limits the length of overland flow paths and reduces maintenance problems.
- Locate Sediment Retention Ponds so as to provide a convenient collection point for sediment laden flows from the catchment area. This will require strategic use of
- cut-offs, Runoff Diversion Channels and Contour Drains.

- Locate Sediment Retention Ponds to allow access for removing sediment from the pond.
- Where possible, locate Sediment Retention Ponds to allow the spillway to discharge over undisturbed, well vegetated ground.
- Keep the Sediment Retention Pond life to less than two years. If a longer term is required then further measures to ensure stability and effectiveness are likely to be needed.
- Do not locate Sediment Retention Ponds within watercourses.
- Embankment and spillway stability are generally the weak point in Sediment Retention Pond construction. Correct compaction particularly around emergency spillways, discharge pipes and antiseep collars, will keep the system robust.

1.6.1.3 Silt Fence

Silt fence is a temporary barrier of woven geotextile fabric used to intercept runoff, reduce it velocity and impound sediment laden runoff from small areas of disturbed soil.

Purpose

It is used to detain flows from runoff so that deposition of transported sediment can occur through settlement.

Silt fences will be used where required and erected to the guidelines of ARC TP 90.

- On low gradient sites or for confined areas where the contributing catchment is small, such as short steep batter fills and around watercourses.
- To delineate the limit of disturbance on an earthworks site such as riparian areas or bush reserves.
- To store runoff behind the Silt Fence without damaging the fence or the submerged area behind the fence.
- Do not install Silt Fences across watercourses or in areas of concentrated flows.

Silt Fence design recommendations

- Ensure Silt Fence height is a minimum of 400mm above ground level.
- Place supporting posts/waratahs for Silt Fences no more than 2m apart unless additional support is provided by tensioned wire (2.5mm HT) along the top of the Silt Fence. Where a strong woven fabric is used in conjunction with a wire support, the distance between posts can be extended up to 4m. Double the Silt Fence fabric over and fasten to the wire and posts with wire ties or cloth fastening clips at 150mm spacings. Ensure supporting posts/waratahs are embedded a minimum of 400mm into the ground.
- Always install Silt Fences along the contour. Where this is not possible or where there are long sections of Silt Fence, install short Silt Fence returns projecting

upslope from the Silt Fence to minimise concentration of flows. Silt Fence returns are a minimum 2m in length, can incorporate a tie back and are generally constructed by continuing the Silt Fence around the return and doubling back, eliminating joints.

- Join lengths of Silt Fence by doubling over fabric ends around a wooden post or batten or by stapling the fabric ends to a batten and butting the two battens together as shown in table 2.2
- Maximum slope lengths, spacing of returns and angles for Silt Fences are shown in table 2.2
- Install Silt Fence wings at either end of the Silt Fence projecting upslope to a sufficient height to prevent outflanking.
- Where impounded flow may overtop the Silt Fence, crossing natural depressions or low points, make provision for a riprap splash pad or other outlet protection device.
- Use of Silt Fences in catchments of more than 0.5ha requires careful consideration of specific sire measures, and other control measures maybe better, such as Super Silt Fence.
- Where water may pond behind the Silt Fence, provide extra support for the Silt Fence with tie backs from the Silt Fence to a central stable point on the upward side. Extra support can also be provided by stringing wire between support stakes and connecting the filter fabric to this wire.
- Excavate a trench a minimum of 100mm wide and 200mm deep along the proposed lint of the Silt Fence. Install the support post on the downslope edge of the trench and Silt Fence fabric on the upslope side of the support posts to the full depth of the trench, then backfill the trench with compacted soil.
- Use supporting posts of tanalised timber a minimum of 50mm square, or steel waratahs at least 1.5m in length.
- Reinforce the top of the Silt Fence fabric with a wire support made of galvanised wire a minimum diameter of 2.5 22. Tension the wire using permanent wire strainers attached to angled waratahs at the end of the Silt Fence.
- Where ends of the Silt Fence fabric come together, ensure they are overlapped, folded and stapled to prevent sediment bypass.

The fabric cloth must meet the following requirements for geotextile fabric.

Tension strength:	0.345 pa (minimum)
Tensile Modulus:	0.140 pa (minimum)
Apparent Opening Size	100

Table 2.2 ARC TP 90 Silt Fence Design Criteria

Slope Steepness %	Slope Length (m) Maximum	Spacing of Returns (m)	Silt Fence Length (m) Maximum

Flatter than 2%	Unlimited	N/A	Unlimited
2-10%	40	60	300
10-20%	30	50	230
20-33%	20	40	150
33-50%	15	30	75
>50%	6	20	40

Silt fences will be inspected at least once a week and after each rain fall. Make any necessary repairs when bulges occur or when sediment accumulation reaches 50% of the fabric height.

Any areas of collapse, decomposition or ineffectiveness need to be immediately replaced.

1.6.1.4 Permanent seeding

The planting and establishment of quick growing and/or perennial vegetation to provide permanent stabilisation on exposed areas. Permanent seeding is designed to permanently stabilise soil on disturbed areas to reduce sediment and runoff to downstream or off-site areas.

This practice applies to any site where establishing permanent vegetation is important to protect bare earth. It may also be used on rough graded areas that will not be brought to final grade for a year or more. It is proposed that grass seeding of the earth bund protections be established once constructed and applied to the outer face (refer Design sediment control plan Appendix B)

The areas to be seeded will be grade as necessary to permit the use of conventional equipment for soil preparation, seeding and maintenance.

A good seed bed will be repaired, free of large clods, rocks and other unsuitable material to ensure successful establishment of vegetation. Apply topsoil at a minimum depth of 100mm to allow for a loose and friable soil surface were prepared slopes are less or equal to 1:3. Where slopes are steeper hydroseeding will be preferred.

Apply fertilizer as may be necessary to bring the soil nutritional rate to a suitable level. Some soils may require the addition of lime to improve pH.

Apply seed at the mixture and rate in the table below. This seeding rate can be varied with the approval from the Northland Regional Council. Apply the seed uniformly and sow at the recommended rate. Seed that is broadcast must be covered by raking and then lightly tamped into place. If hydroseeding is required, and then it can be utilised in accordance with Part B, Section 1.6.2 of these guidelines.

Maintenance

Reseed where seed germination is unsatisfactory or where erosion occurs. In the event of unsatisfactory germination, the areas may also require the application of Mulch in accordance with Part B, Section1.6.3 of the ARC TP 90 guidelines.

Depending on site conditions it may be necessary to irrigate, fertilise, oversow or re-establish plantings in order to provide vegetation for adequate erosion control. All

revegetated areas will be protect from traffic flows and other activities such as the instillation of drainage lines and utility services.

Table 1.6, Grass Seed and Fertiliser Application Rates

	Mix	Rate (Kg/Ha)	Comments
Seeding	Temporary Annual Rye Grass (ie. Tama) and Clover Seed Mix Permanent Perennial Ryegrass and Brown Top with a Red/White Clover mix	300 Perennial – 120 Brown Top – 45 Clover – 45	Annual Rye Grass is more suitable for colder times of the year when ground temperatures are low.
Fertiliser Application	*D.A.P* (Di-Ammonium Phosphate) NPKS 18:20:0:2	240	D.A.P is an ideal fertiliser for the rapid development of grass cover whilst neither damaging seed or inhibiting seed germination.
Maintenance Fertiliser Application	*Straight Nitrogen* eg. Urea (46% N)	120	Urea provides an efficient means of encouraging further development of grass cover.

1.7 NOISE AND DUST

1.7.1 DUST AND NOISE

Noise and visual disturbances will be away from established residential properties. Effects of the work itself will be visible from the state highway. The access road to the fill site off the State Highway will be formed to satisfy the movements of a large truck and trailer. The access road from and including the entrance will be metalled for the first 20m to minimise the transfer of spoil onto the road. The access should be constructed smooth and even so that minimal noise is experienced from trucks using the access.

During the works any immediate dust disturbance will be kept to a minimum as a majority of the fill imported will be in a wetted state or at a high than normal moisture content. This will be particular where fill has been sourced from dredging.

Where it becomes apparent that dust nuisance is could be likely the whole site shall be operated in such a condition that the dust suppression is sufficient to prevent nuisance to the general public, neighbouring properties or stock and prevent damage to plant growth on or adjacent to the site. Dust control shall comply with the Northland Regional Council Regional Air Quality Plan for Northland.

Noise from equipment such as earthmoving machinery is to be mitigated by:

- Limiting the hours of work to minimise noise disruption for adjacent land use especially residential areas.
- Only operate construction equipment between 7am to 7pm.
- Limiting the engine exhaust noise level on equipment to be used during construction.
- Operate all construction equipment within the recommended noise levels set out in NZS 6803P: 1984 - The Measurement and Assessment of Noise from Construction, Maintenance and Demolition Work.

The location of the earthworks in relationship to adjoining properties and residential dwellings is such that any effects of dust to these properties will be minimal. The use of watercarts can be deployed where dust becomes a nuisance to adjoining properties and general road users.

1.8 HAZARDOUS SPILLAGES

Other factors that pose potential risks are fuel and oil spillage. These types of spillage are generally isolated and contained to mechanical breakdowns from construction machinery. Surface containment of this type can be mitigated by immediate excavate and remove of the contaminated material. There will be machinery made available on site capable of containing this type of spillage.
Migration of oil and fuel spill to stream is unlikely as the introduction of sediment controls will allow early detection and quarantine. The contaminated soil should be carefully excavated and removed to a suitable waste dump site nominated by the authority.

1.9 DISCHARGE QUALITY

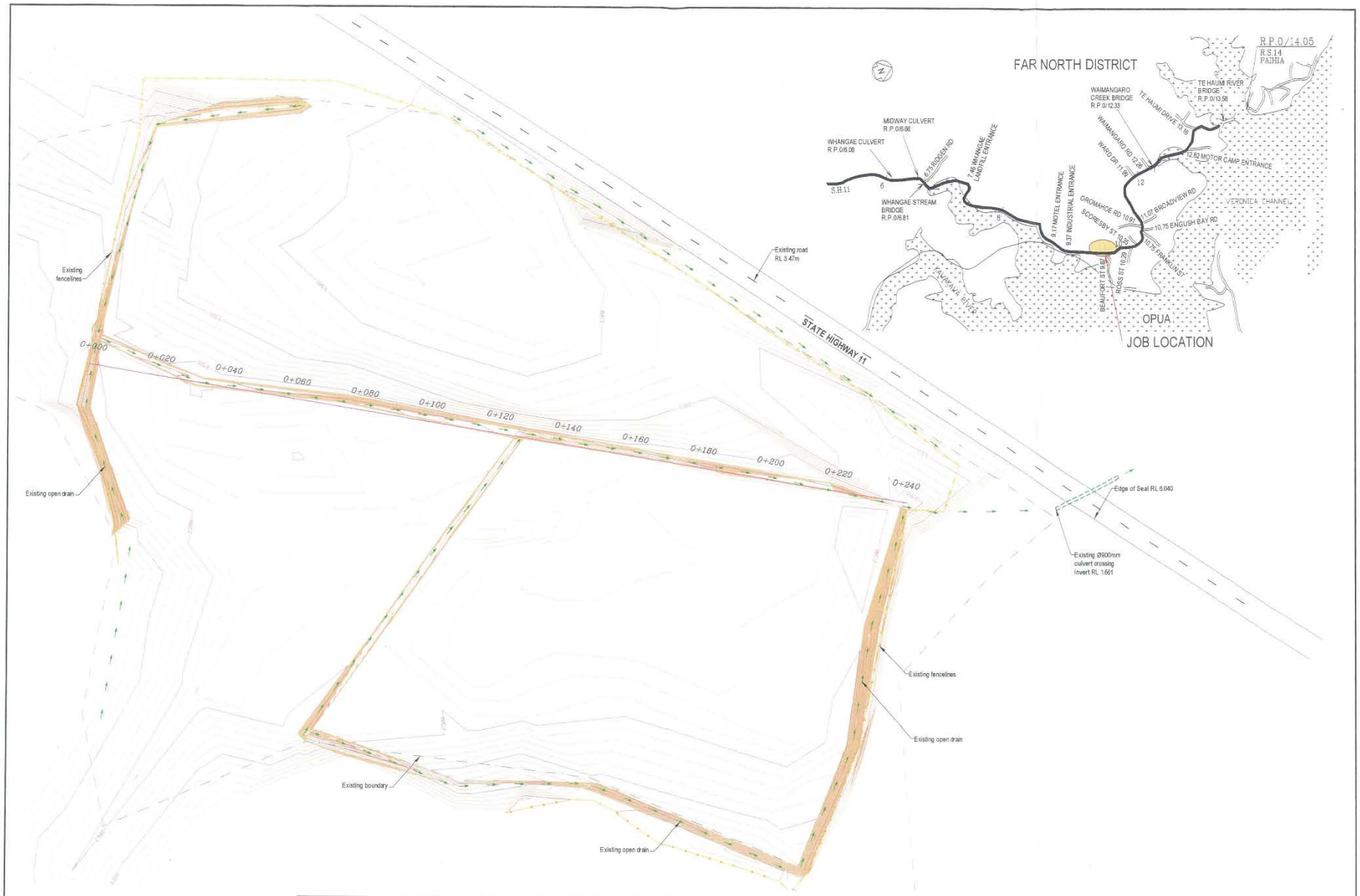
The discharge of stormwater shall not cause the quality of the receiving waters, as measured 10m downstream of any discharge point, to fall below the following standards:

(a) The concentration of dissolved oxygen (daily minimum) will not be reduced below 6 grams per cubic meter.
(b) The visual clarity of the water will not be reduced by more than 40%.
(c) There will be no conspicuous oil or grease films, scums of foams, floatable or suspended materials, nor emissions of objectionable odour.

Sampling procedure, and results, will be to Northern Regional Council standard. It should be agreed prior to the start of any earthworks a nominated sampling point downstream of the open drain within road reserve. Samples will need to be recorded within the drain at suitable locations prior to any work starting. This will provide a benchmark from which water purity can be measured against.

1.10 QUALITY CONTROLS

Appendix A – Earthworks Plan



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F.C.	25/07/06			
CHECKED: C.H.	25/07/06			
APPROVED:				

Northern Civil Consulting Engineers Ltd
PO Box 10040
Te Mai
WHANGAREI

TITLE: SH11 Region 1 RP. 0/9.5
Far North Holdings Ltd
Paihia Rd Dump Site
EXISTING PLAN

SCALE: 1 : 1000

ORIGINAL PAPER SIZE A3

JOB:	1311
CAD:	Paihia Rd Dumpsite
CLIENT REF:	SHEET NO:
N/A	1

DRAWN:	DATE:	REV.	DRAWING STATUS - DRAFT	BOUNDARY ACCURACY - HIGH
F.C.	25/07/06			
CHECKED: C.H.	25/07/06			
APPROVED:				

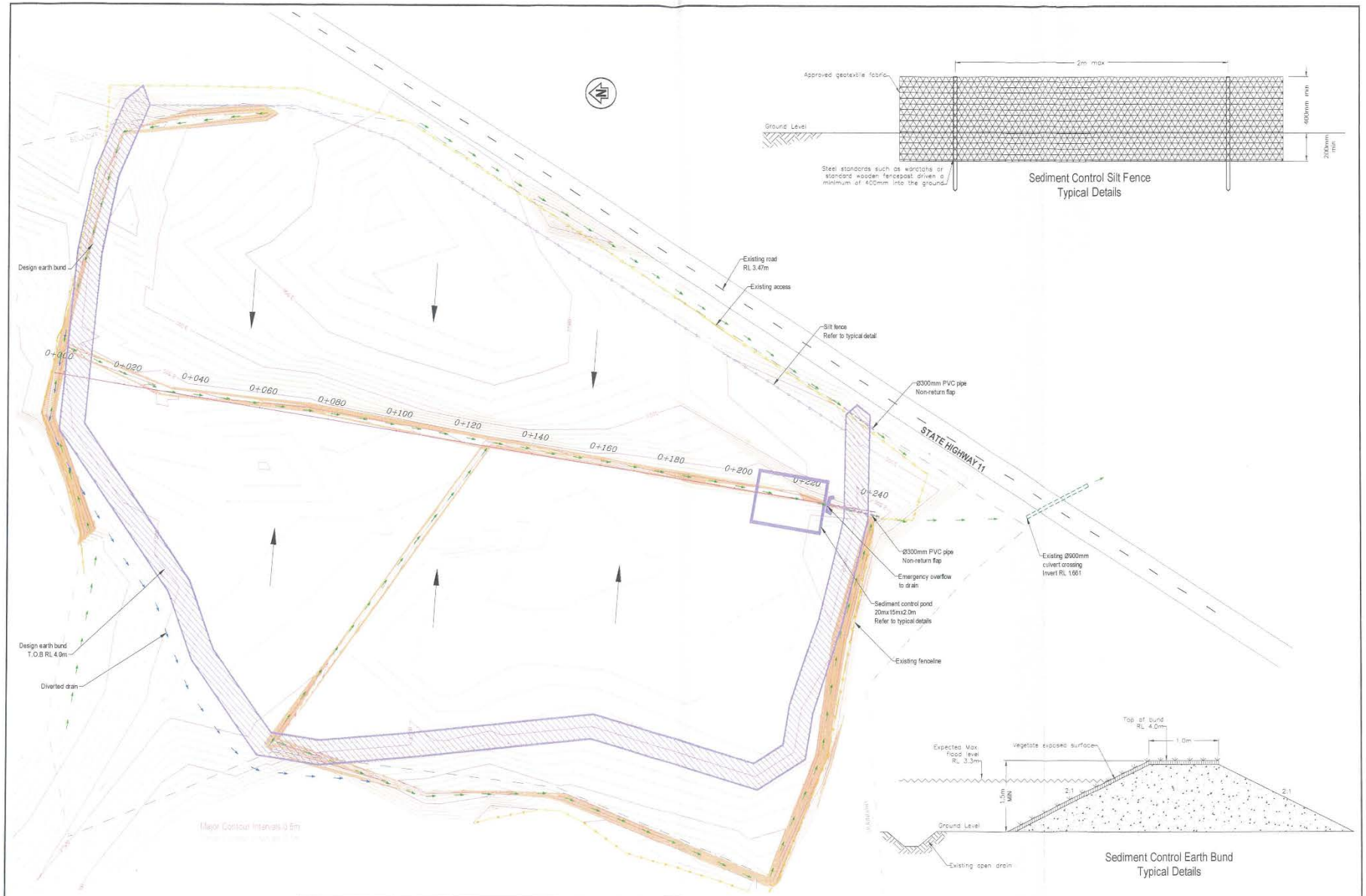
Northern Civil
Consulting Engineers Ltd
PO Box 100150
Te Ahiti
WHANGAREI

TITLE: SH11 Region 1 RP. 0/9.5
Far North Holdings Ltd
Paihia Rd Dump Site
DESIGN EARTHWORKS PLAN

SCALE: 1 : 1000 ORIGINAL PAPER SIZE A3

JOB: 1311
CAD: Paihia Rd Dumpsite
CLIENT REF: N/A
SHEET NO: 2

Appendix B – Sediment Controls



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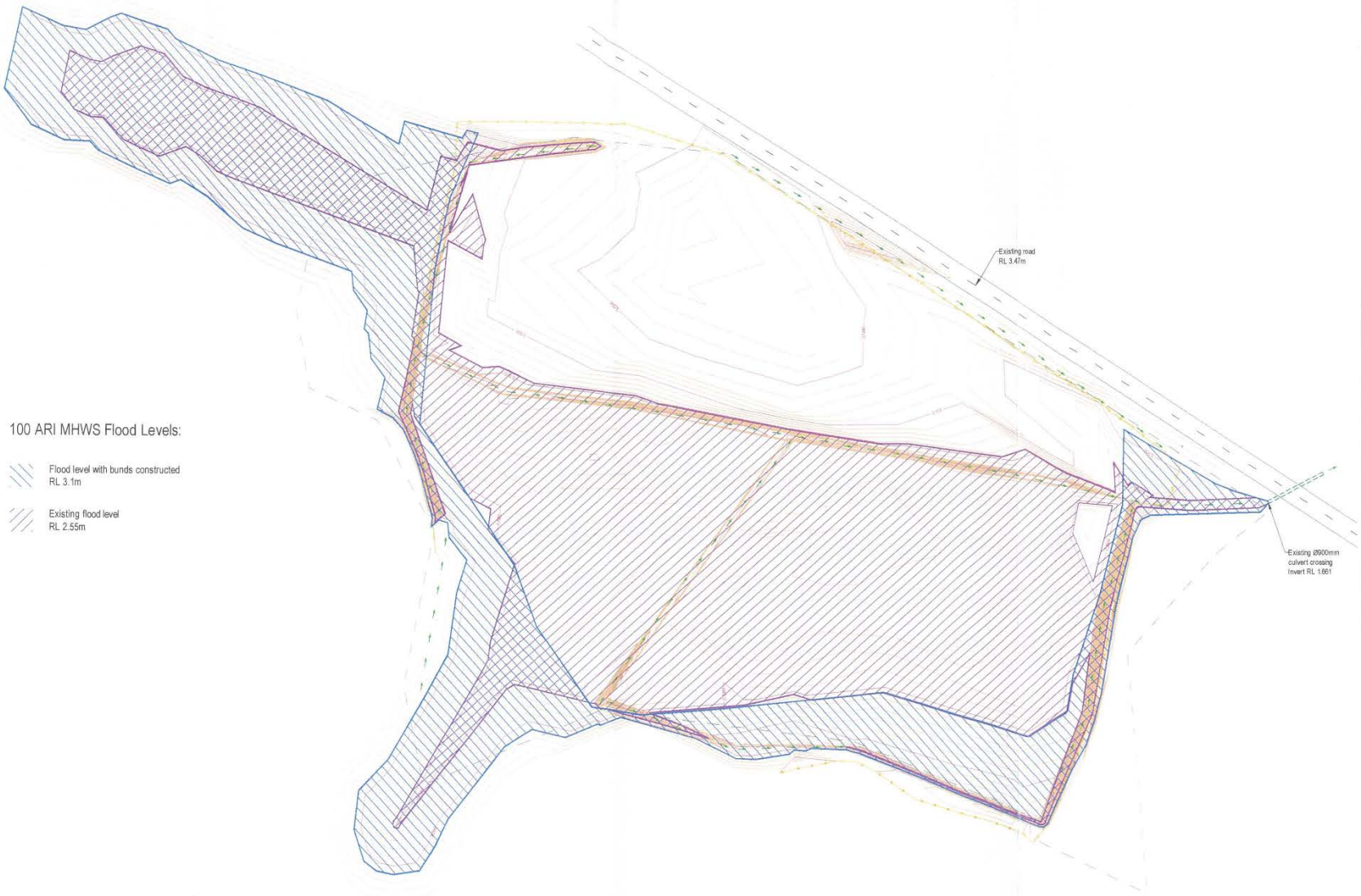
CHECKED: C.H.	25/07/06			
APPROVED:				

Northern Civil
Consulting Engineers Ltd
PO Box 10060
Te Mai
WHANGAREI

TITLE: SH11 Region 1 RP. 0/9.5
Far North Holdings Ltd
Paihia Road Dump Site
DESIGN SEDIMENT CONTROL PLAN

SCALE: 1 : 1000 ORIGINAL PAPER SIZE A3

JOB:	1311
CAD:	Paihia Rd Dumpsite
CLIENT REF:	SHEET NO:
NA	3



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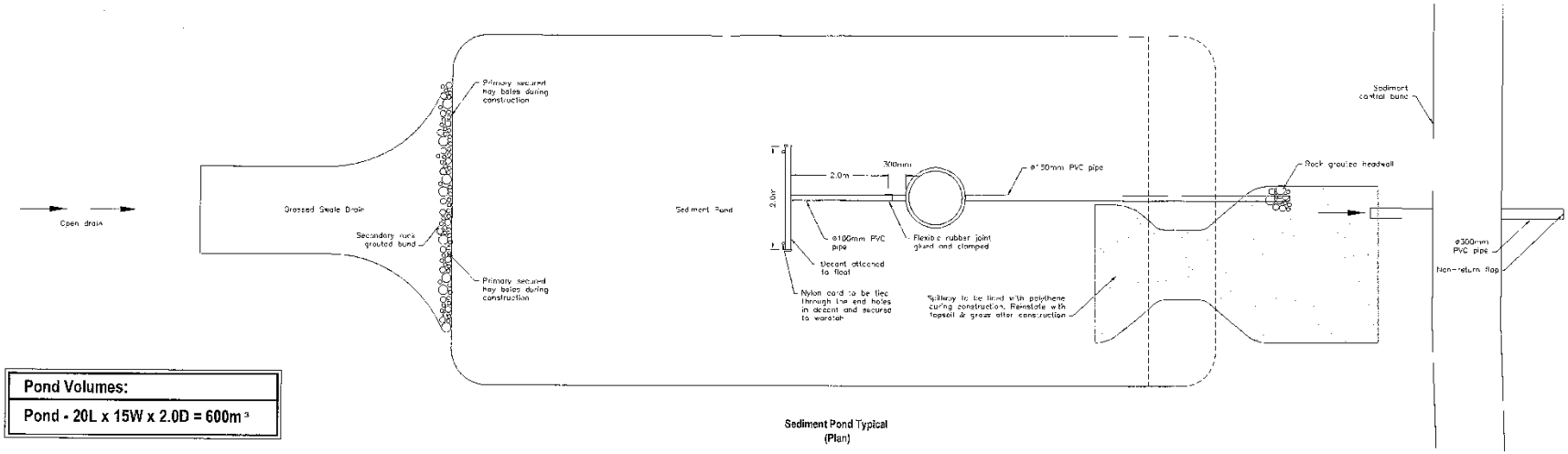
F.C.	25/07/06			
CHECKED: C.H.	25/07/06			
APPROVED:				

Northern Civil
Consulting Engineers Ltd
PO Box 10060
Te Mai
WHANGAREI

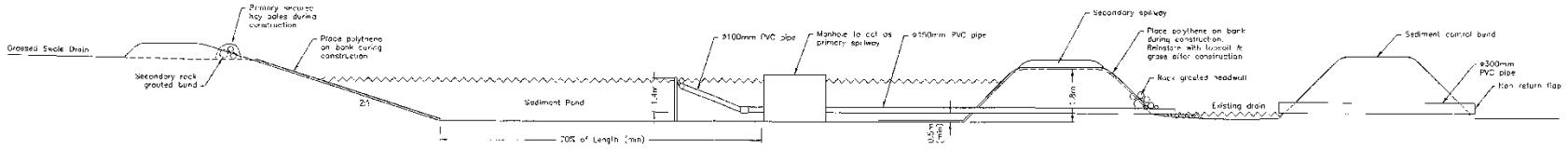
TITLE: SH11 Region 1 RP. 0/9.5 Far North Holdings Ltd Paihia Rd Dump Site FLOOD LEVEL PLAN		JOB:	1311
		CAD:	Paihia Rd Dumpsite
SCALE: 1 : 1250	ORIGINAL PAPER SIZE A3	CLIENT REF:	N/A
		SHEET NO:	4



Pond Volumes:

Pond - 20L x 15W x 2.0D = 600m³

Sediment Pond Typical (Plan)



Sediment Pond Typical Cross Section

Note: Refer to TP90 for sediment contro details

DRAWN: F.C.	DATE: 26/07/06	REV.	DRAWING STATUS - DRAFT	BOUNDARY ACCURACY -N/A	
CHECKED: C.H.	25/07/06				
APPROVED:					

Northern Civil Consulting Engineers Ltd
PO Box 10039
Te Mai
WHANGAREI

TITLE: SH11 Region 1 RP. 0/9.5
Far North Holdings Ltd
Paihia Rd Dump Site
SEDIMENT POND TYPICAL DETAILS

SCALE: NOT TO SCALE | ORIGINAL PAPER SIZE: A2

JOB: 1311
CAD: Paihia Rd Dumpsite
CLIENT REF: N/A
SHEET NO: 5

Appendix C – Catchment Analysis

Paihia Rd Dump Site (Revised calcs)

20/07/06
MWD.

$Q = 2.2 m^3/s$

Existing Culvert is ϕ900mm (914mm actual)

$\Rightarrow$ Area of culvert opening is $\pi d^2/4 = 0.656 m^2$

Actual slope of culvert is 0.118 in 100 $\Rightarrow$ assume a velocity of 1m/s

Note:- When tide is at MHWS level the culvert is over half full. At the inlet the available empty culvert to take stormwater is only $0.137 m^2$

$\therefore Q = vA \Rightarrow Q = 1 \times 0.137$
$= 0.137 m^3/s$

Difference $2.2 - 0.137 = 1.863 m^3/s$

$\Rightarrow$ Over 1 hr there would be a volume of $6706.8 m^3$ of water distributed over the flood plane.

Using a Sediment Control Pond with an RL of 4.0m we used a flood RL of 3.3m. This gave us approximately $9000 m^3$ of storeage outside the bunds. This is approx $2300 m^3$ more than is required using the results calculated above. A flood level of 3.2m would give a volume closer to the $6700 m^3$ required.
Note:- This is a conservative calculation as it is based on the 100 year storm coinciding with the Spring Tide. The situation would also improve as the tide level dropped.

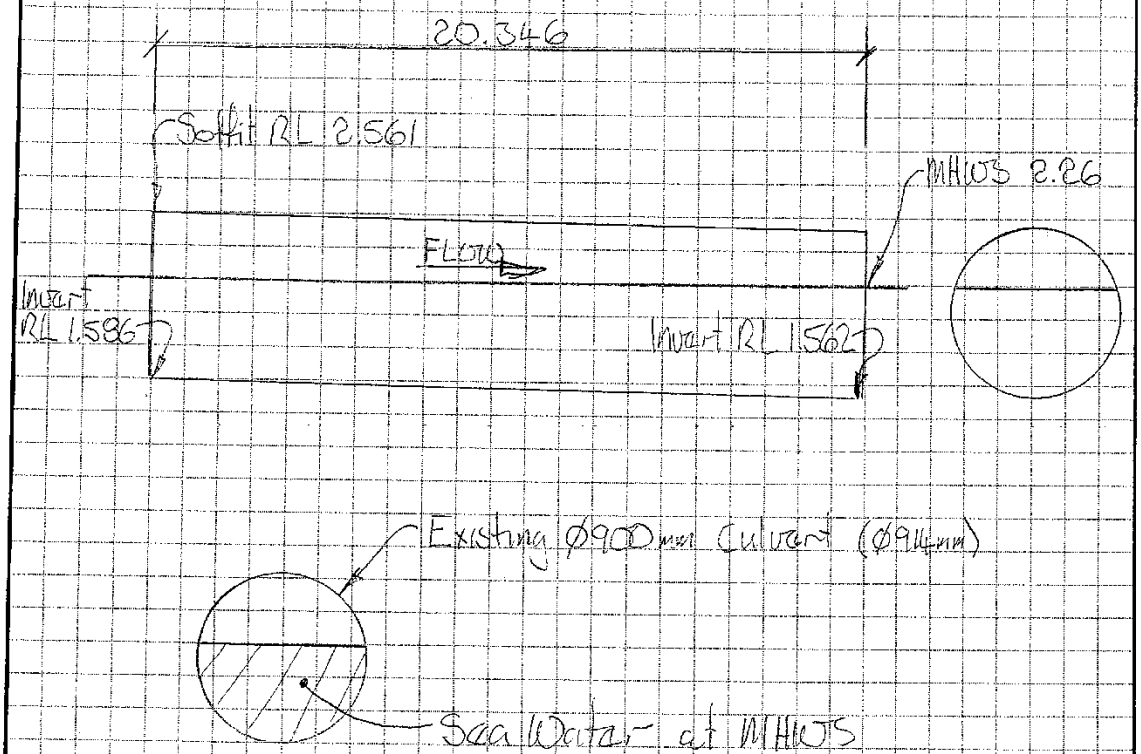
Also note that this ammount of flood water would discharge through the existing pipe in well under 6hrs.

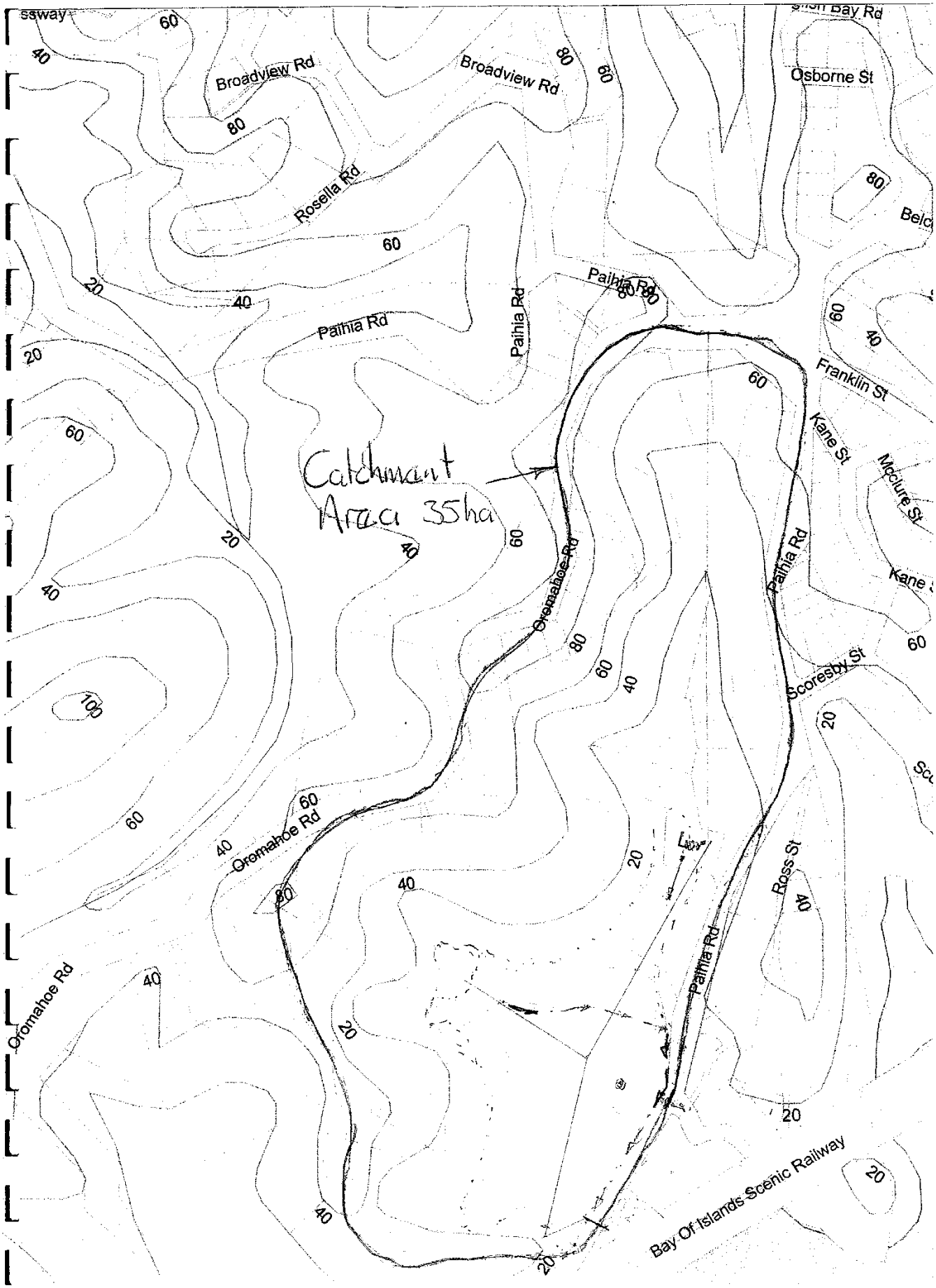
CALCULATION SHEET

Northern Civil
Consulting Engineers Ltd
P.O. Box 10050 Ph. (09) 438 3345
Te Mai, Whangarei Fax (09) 438 3373

Pahia Rd Dump Site
Existing Culvert

Job No.	
Page	
Date	21/07/06
Eng	MWD




Broadview Rd
Broadview Rd
Osborne St
Rosella Rd
Paihia Rd
Paihia Rd
Paihia Rd
Franklin St
Kane St
Oromahoe Rd
Oromahoe Rd
Oromahoe Rd
Paihia Rd
Scoresby St
Ross St
Paihia Rd
Bay Of Islands Scenic Railway
Catchment
Area 35ha

DESIGN pipe

100yr ARI

DESIGN DATA FOR CONCRETE PIPE CULVERT FLOWING FULL

Qp= 2.2 **cubic meters per second**

Ke	0.2
Mannings n	0.035
tw	0

Mannings

some grass and weeds, little or no bush = 0.03 - 0.035
Dense growth of weeds, depth of flow materially greater than the weed 0.035 - 0.05
some weeds, light brush on banks 0.035 - 0.05
some weeds, heavy brush on banks 0.05 - 0.07
some weeds, dense willows on banks 0.06 - 0.08
trees within channelwhich have branches submerged at high flood add 0.01 - 0.02

Culvert length 20.346 m

Culvert slope 1 in 970 m

Number of culverts 1 **No of Inlets**

culvert diameter 0.900 m

Culvert sizes avaliable
300, 375, 450, 525, 600, 750, 900
1050, 1200, 1600, 1800, 2100, 2400, 2700
4000
5000

OUTLET CONTROL

A	0.636
R=A/wp	0.177
1+Ke	1.200
2*g	19.620
V^2	11.824
LSo	0.021
TW	0.000
ho	0.878
Selected ho	0.878
H=	3.678
0.000	0.000

HW 4.535 m

Above pipe 3.635 m

INLET CONTROL

Q	2.188
Ke V^2/2g	0.121
D/2	0.450
A	0.636
0.000	0.000

Hw= 1.173 m

Above pipe 0.273 m

Selected culvert size 900 **mm dia**

Number 1

10yr ARI

DESIGN pipe

DESIGN DATA FOR CONCRETE PIPE CULVERT FLOWING FULL

Qp= 1.3 cubic meters per second

Ke	0.2
Mannings n	0.035
tw	0

Mannings

some grass and weeds, little or no bush = 0.03 - 0.035
Dense growth of weeds, depth of flow materially greater than the weed 0.035 - 0.05
some weeds, light brush on banks 0.035 - 0.05
some weeds, heavy brush on banks 0.05 - 0.07
some weeds, dense willows on banks 0.06 - 0.08
trees within channelwhich have branches submerged at high flood add 0.01 - 0.02

Culvert length 20.346 m

Culvert slope 1 in 970 m

Number of culverts 1 No of inlets

culvert diameter 0.900 m

Culvert sizes avaliable
300, 375, 450, 525, 600, 750, 900
1050, 1200, 1600, 1800, 2100, 2400, 2700
4000
5000

OUTLET CONTROL

A	0.636
R=A/wp	0.177
1+Ke	1.200
2*g	19.620
V^2	4.256
LSo	0.021
TW	0.000
ho	0.781
Selected ho	0.781
H=	1.324
0.000	0.000

HW 2.084 m

Above pipe 1.184 m

INLET CONTROL

Q	1.313
Ke V^2/2g	0.043
D/2	0.450
A	0.636
0.000	0.000

Hw= 0.710 m

Above pipe -0.190 m

Selected culvert size 900 mm dia

Number 1

Resource Management Act 1991

District Plan

Far North District Council

Far North Holdings Ltd

FILL EARTHWORKS

PAIHIA ROAD OPUA

TRAFFIC REPORT

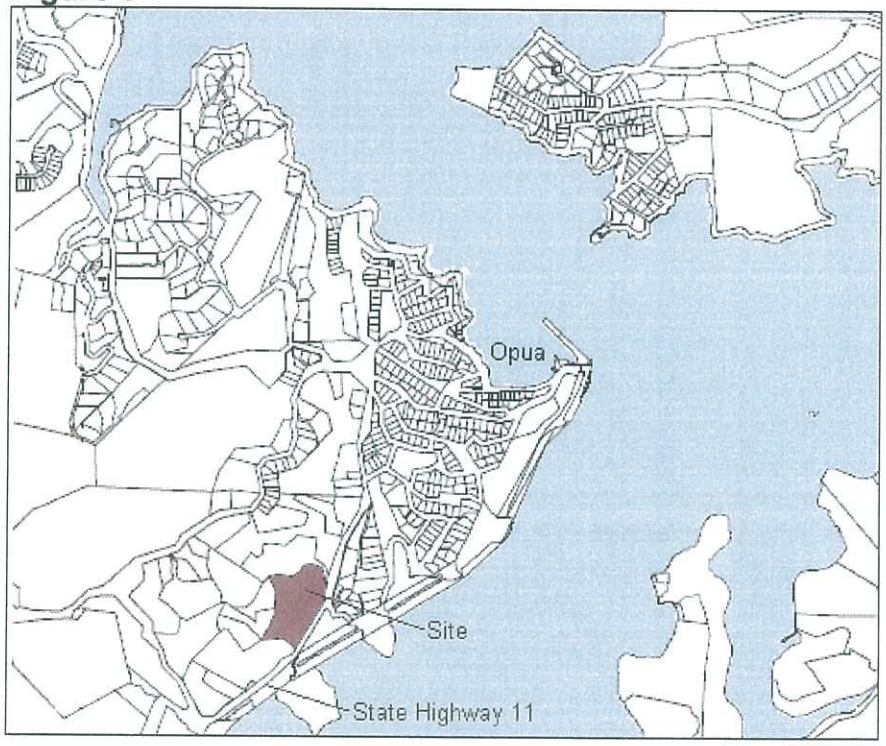
1. Introduction

Far North Holdings Limited seek resource consent for earthworks required for site formation, by filling, of a 4.5572 hectare site. The site is located on the western side of Paihia Road [State Highway 11 RP 0/9.77 – 9.93] south of Opua as shown in the Location Map in ***Figure 1.*** The legal description of the property is Lot 12, DP 200225 contained in Certificate of Title NA126B/910.

Far North Holdings Ltd proposes to deposit fill across the majority of the site to create a level platform suitable for development as detailed in the attached engineering drawings. The existing Relative Levels [RL] vary from 98.15 to 100 across the site. It is proposed to deposit material to achieve a finished design level of RL 101.5 which means that the depth of fill will vary from 1.5 to 3.35 metres and involve an approximate volume of 95,000m3 of material.

1.1 Location

Figure 1



1.2 Traffic Generation

There is no immediately identifiable source for the quantity of fill proposed. The earthworks site is being made available as a matter of prudent planning for future maintenance and development work that Far North Holdings carry out from time to time. The site is expected to be used over a period of 10 years or more. If the 95,000 cubic metres were carted by an 8 cubic metre capacity truck it would generate approximately 12,000 truckloads. If these were spread over 10 years they represent 1200 loads per year. These loads are expected to be concentrated over short time periods of a week or two, peaking at 50 loads per day with long periods of inactivity.

1.3 Access Location and Visibility

The existing access is 90 m south of Beaufort Street.

The sight distances available from the access are 210 m to the north and 176 m to the south. The operating speed of the Highway is conservatively estimated at 75 km/h. This operating speed has an intersection sight distance requirement of 160m.

Sight distance to the right 176 m

Sight distance to the left 210 m.

2. State Highway 11

2.1 Traffic volumes

Count station 11/13 (3 km north) has a count of 3520 vehicles per day (2004) and has 5.9% HCV.
Count station 11/4 (6 km south) has a count of 2305 vehicles per day (2004) and has 4.1% HCV.

Based on these traffic counts, traffic volumes at the site are estimated to be 3000 vehicles per day.

2.2 Speed Environment

The approaches to the site on each side contain low speed sections (< 50 km/h) within 500 m of the site. From the south the preceding 5 km is winding and of comparatively low (60 – 75 km/h) operating speed. From the north the site is 1 km south of the Opua access road (Franklin St) and the preceding 4 km is winding and of comparatively low (60 – 75 km/h) operating speed.

The estimated 85th percentile speed at the site is 75 km/h.

2.3 Accidents

The accident printout is attached for the 5-year period 2000 to 2004 inclusive. There are 2 accidents within 500 m each side of the access location. Both of the accidents involved rear end queuing and one was at an intersection.

2.4 Limited Access Road

SH11 is a limited access road at this location. There is a single crossing place authorisation registered to Lot 12, DP 200225.

The existing licence is attached. Generally any significant changes to the use of the crossing place will require notification of the Transit Regional Manager who may require that work is carried out to address safety or efficiency concerns.

3. Transit Requirements

3.1 Access Rules

The following criteria are taken from Transit 's Planning Policy Manual. The policy is a guide to what Transit may also require under the LAR provisions.

3.1.1 Permitted activities – Access to State Highways

An access to a State Highway shall be a permitted activity subject to:

- No legal access is available from another road.
- The traffic generated through the access to the State highway is less than 100 ecm/d.

- Compliance with the performance criteria given in Table 1 (refer to Appendix 4 in the manual) regarding site distance, clearance from intersections, and minimum access spacing.
- For an access with less than 30 ecm/d, the vehicle crossing is to be designed and formed in accordance with Diagram C (refer to Appendix 4 in the manual).
- For an access with between 30 and 100 ecm/d, the vehicle crossing and localised road widening is to be designed and formed in accordance with Diagram D (refer to Appendix 4).
- Provision for manoeuvring on site, so that reverse manoeuvring onto the State highway is not required.

3.1.2 Restricted Discretionary Activities – Access to State Highways

For access to a state highway that is unable to meet the performance criteria above the Council's discretion on matters of access should be directed to the following matters.

3.1.3 Assessment Matters – Access to State Highways

When considering a resource consent application for access to a state highway as a restricted discretionary activity, Council should consider the following matters:

a) Whether the crossing is sufficiently removed from an intersection having regard to traffic volumes on the roads, and any other factors that will prevent conflict and confusion between vehicles turning at the crossing or at the intersection;
b) The adequacy of available sight distances having regard to the 85th percentile speed of vehicles on the road;
c) Whether there is a need to separate entry and exit in order to reduce traffic confusion and conflict;
d) Whether the physical form of the road will minimise adverse effects of access (e.g whether the road offers good visibility; whether a solid median barrier will stop unsafe right hand turns or a flush median will assist right hand turns etc);
e) Whether particular mitigation measures such as a deceleration or turning lane are required due to speed or volume of vehicles on the road;
f) The design of the crossing to enable traffic exiting the site to safely enter the traffic stream;
g) The location and design of the crossing in relation to pedestrian and cycle safety;
h) Whether there is adequate queuing and parking space on site so that vehicles do not queue over vehicle crossings or on the state highway;
i) Any potential cumulative effects of extra access points on the function of the state highway;
j) Any relevant accident history of the State highway in the vicinity of the site; and
k) The particular traffic characteristics of an existing or proposed activity, including expected traffic generation, types of vehicles etc.

3.2 Access assessment

In relation to the permitted activity requirements from Transit's criteria the following comments are made:

- No legal access is available from another road. *The property has no other legal access.*
- The traffic generated through the access to the State highway is less than 100 *ecm/d. The proposal will generally not comply. The proposal will at times generate in the order of 600 ecm/d.*
- Compliance with the performance criteria given in Table 1 (refer to Appendix 4 in this manual) regarding site distance, clearance from intersections, and minimum access spacing. Table 1 requires
    - 250 m sight distance. *The 250 m intersection sight distance requirement is associated with a 100 km/h operating speed. The operating speed of the section at 75 km/h is well below the posted speed limit. The sight distances available are more than is required for the operating speed of the Highway but less that 250 m.*
    - 200 m to the nearest intersection. *Beaufort St is 90 m to the north. The 200 m intersection separation requirement is associated with a 100 km/h operating speed. The operating speed of the section at 75 km/h is well below the posted speed limit. A 70 km/h operating speed would require 100 m separation.*
    - 200 m spacing between accesses. *There are accesses to the north closer than 200 m. These accesses will not interfere in the operation of the proposed access.*
- For an access with less than 30 ecm/d, the vehicle crossing is to be designed and formed in accordance with Diagram C (refer to Appendix 4 of the manual). *Not applicable.*
- For an access with between 30 and 100 ecm/d, the vehicle crossing and localised road widening is to be designed and formed in accordance with Diagram D (refer to Appendix 4). *The access will have greater than 100 ecm/d but will be only intermittently used. I consider that the provision of diagram D widening or a right turn bay will mitigate the effects of the proposed turning movements.*
- Provision for manoeuvring on site, so that reverse manoeuvring onto the State highway is not required. *Compliance with this should be easily met.*

In relation to the assessment matters that Transit consider the following comments are made

l) Whether the crossing is sufficiently removed from an intersection having regard to traffic volumes on the roads, and any other factors that will prevent conflict and confusion between vehicles turning at the crossing or at the intersection. *Beaufort Rd is a very low volume Rd and the 85th percentile speed in this area (estimated from Austroads tabulations) is 75 km/h. Since the intersection is close to 90 m away this is unlikely to cause conflict with the access.*

m) The adequacy of available sight distances having regard to the 85th percentile speed of vehicles on the road. *These are adequate.*

n) Whether there is a need to separate entry and exit in order to reduce traffic confusion and conflict. *I do not see a need for this.*

o) Whether the physical form of the road will minimise adverse effects of access (e.g whether the road offers good visibility; whether a solid median barrier will

stop unsafe right hand turns or a flush median will assist right hand turns etc). *Diagram D widening will minimise adverse effects.*

p) Whether particular mitigation measures such as a deceleration or turning lane are required due to speed or volume of vehicles on the road. *Diagram D widening will provide this.*

q) The design of the crossing to enable traffic exiting the site to safely enter the traffic stream. *Diagram D will provide this.*

r) The location and design of the crossing in relation to pedestrian and cycle safety. *Not applicable, pedestrian and cycle traffic is very light.*

s) Whether there is adequate queuing and parking space on site so that vehicles do not queue over vehicle crossings or on the state highway. *This should be easily met.*

t) Any potential cumulative effects of extra access points on the function of the state highway. *No extra access points are being created.*

u) Any relevant accident history of the State highway in the vicinity of the site. *The 5-year accident history shows that two accidents over a 1 km section of road. Both of the accidents involved rear end queuing and one was at an intersection. Diagram D widening will address the causes of these accidents.*

v) The particular traffic characteristics of an existing or proposed activity, including expected traffic generation, types of vehicles etc. *The heavy vehicles that will inevitably use the site can be adequately provided for by way of widening and access design. There is an industrial area less than 500 m to the south that also generates significant heavy vehicle traffic.*

4. District Plan

The site is zoned Coastal Living in the Revised Proposed District Plan [RDP]. As the volume of work exceeds the limits for permitted and restricted discretionary activities in Rules 11.3.6.1.2 and 11.3.6.2.1 respectively, the application is assessed to be a Discretionary Activity and hence is subject to assessment under the criteria in section 11.3.7 of the Plan.

The performance of the proposal against the assessment criteria applicable to discretionary activities [Section 10A of the RDP] is evaluated in ***Table 2*** below. It was noted earlier that the exact number of traffic movements required cannot be quantified precisely until the source(s) of fill are identified and loading times and travel distances are known. It has however been assumed that the level would not exceed 100 movements per day which equates to that generated from a reasonably sized quarry or large construction site.

Table 2 Assessment Criteria for Traffic Intensity

ASSESSMENT CRITERIA	PERFORMANCE
(a) The extent by which the expected traffic intensity exceeds the threshold set by the TIF contained in Appendix 7A in Part 4 of the Plan;	The extent to which the estimated level exceeds the figures in the rule is five times the permitted level of 20 and 2.5 times the restricted discretionary level of 40 movements per day. The daily level for sites in this zone reflects the anticipated prevalence of rural residential type living and the minimum lot size for the zone which is currently 8000m^2. If subdivided, the site could accommodate 5 sites of this size with a total of 100 movements per day being permitted. In purely numerical terms therefore, the number of movements would not be excessive.
(b) The time of day when the extra vehicle movements will occur;	The proposed works will take place during normal working hours, and apart from the arrival and departure of site-based workers at the start and finish, vehicle movements will be spread throughout the day. This would have less effect on the roading network than a pattern with more concentrated 'clustering' of movements.
(c) The distance between the location where the vehicle movements take place and any adjacent properties;	There is only one access point to the property. Of the two adjoining sites with frontage to the State Highway, only the southern one is close to the access point, and its access is more than 110 m away. The two sites that adjoin the western boundary gain access off Oromahoe Road.
(d) The width and capability of any street to be able to cope safely with the extra vehicle movements;	Diagram D widening is recommended on the State Highway to provide the width and capability to accommodate the movements given the likely time interval between the arrivals of the trucks.
(e) The location of any footpaths and the volume of pedestrian traffic on them;	This is a rural area with no footpaths and minimal pedestrian traffic if any.
(f) the sight distances associated with the vehicle access onto the street;	The sight distances are adequate for the operating speed of the highway.
(g) the existing volume of traffic on the streets affected;	The traffic volumes on the State Highway are in the order of 3000 vehicles per day.
(h) Any existing congestion or safety problems on the streets affected;	No congestion exists.
(i) With respect to effects in local neighbourhoods, the ability to mitigate any adverse effects through the design of the access, or the screening of vehicle movements, or limiting the times when vehicle movements occur;	Road widening is recommended The other measures listed are not considered necessary.

ASSESSMENT CRITERIA	PERFORMANCE
(j) With respect to the effects on through traffic on arterial roads, strategic roads and State Highways, any measures such as right-turn bays, flush medians, left turn deceleration tapers etc. proposed to be installed on the road as part of the development to accommodate traffic turning into and out of the site.	Diagram D widening is recommended.

Based on the analysis in Table 2, the proposal is considered to meet the assessment criteria for discretionary applications in respect of traffic intensity.

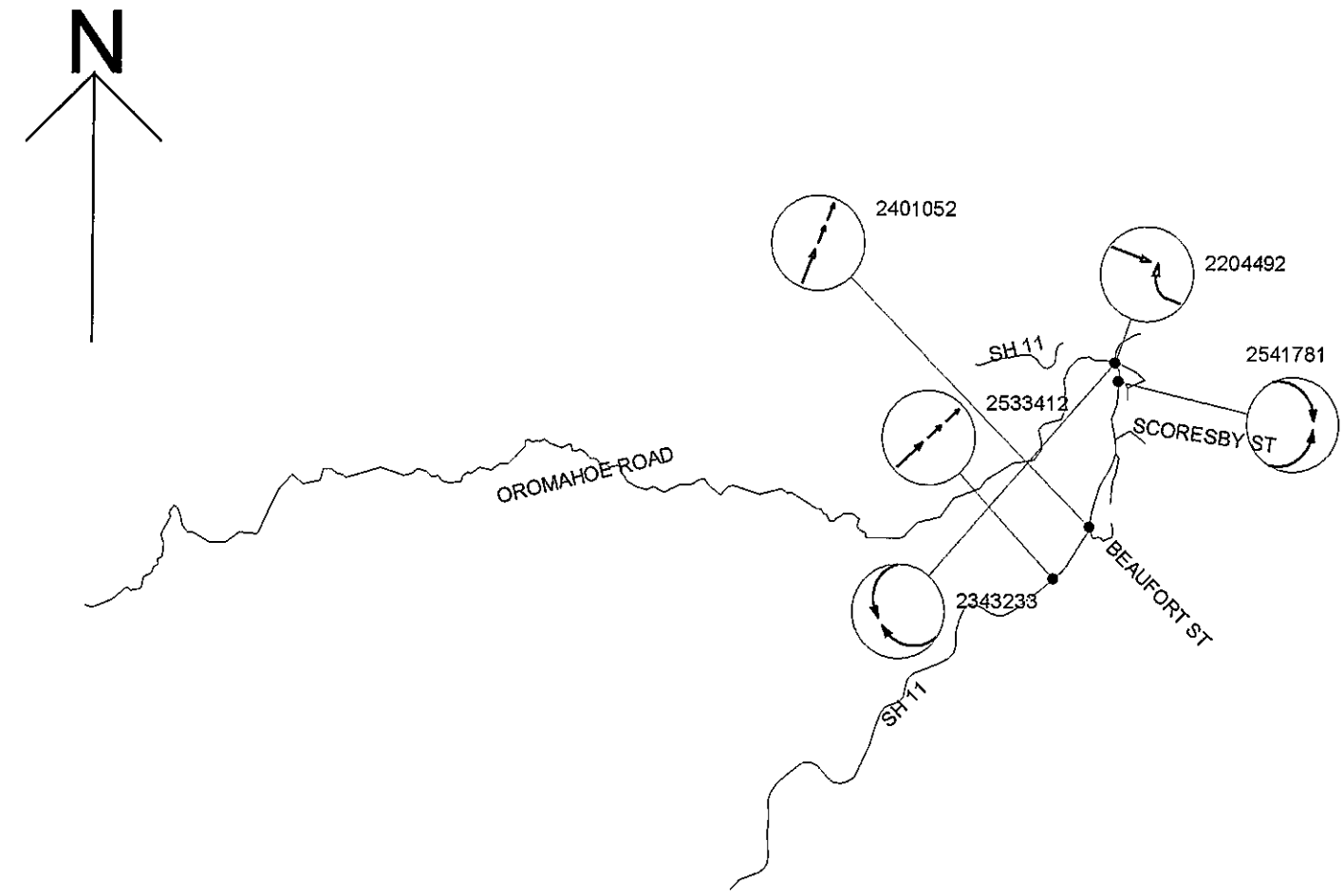
5. Attachments

1. Accident record
2. Transit Diagram D

Steve Gibson
B.E MIPENZ (Civil Structural) CPEng IntPE
Northern Civil Consulting Engineers Ltd

25 July 2006

First Street	D I	Second street or landmark	Distance	R	Crash Number	Date DD/MM/YYYY	Day	Time HHMM	Description of Events	Crash Factors (ENV = Environmental factors)	Road	Natural Light	Weather	Junction	Cntrl	Tot F A T	Inj S E R	M I N
11/0/9.572		330S BEAUFORT ST			2533412	18/03/2005	Fri	1715	CAR1 NBD on SH 11 hit rear end of CAR2 stop/slow for queue		Dry	Bright	Fine	Unknown	Nil			
11/0/9.902	I	BEAUFORT ST			2401052	17/01/2004	Sat	1545	CAR1 NBD on SH 11 hit rear end of CAR2 stop/slow for queue	CAR1 following too closely	Dry	Bright	Fine	T Type Junction	Nil			1
11/0/10.683		100E FRANKLIN ST			2541781	01/10/2005	Sat	1730	CAR1 WBD on SH 11 cutting corner hit CAR2 head on		Dry	Bright	Fine	Unknown	Nil			
11/0/10.783	I	ENGLISH BAY ROAD			2204492	02/09/2002	Mon	1305	VAN2 turning right hit by oncoming CAR1 SBD on SH 11	CAR1 did not stop at stop sign	Dry	Bright	Fine	X Type Junction	Stop Sign			1
11/0/10.783	I	FRANKLIN ST			2343233	14/10/2003	Tue	1645	CAR1 NBD on SH 11 cutting corner hit CAR2 head on		Dry	Overcast	Fine	Multi Rd Join	Give Way Sign			

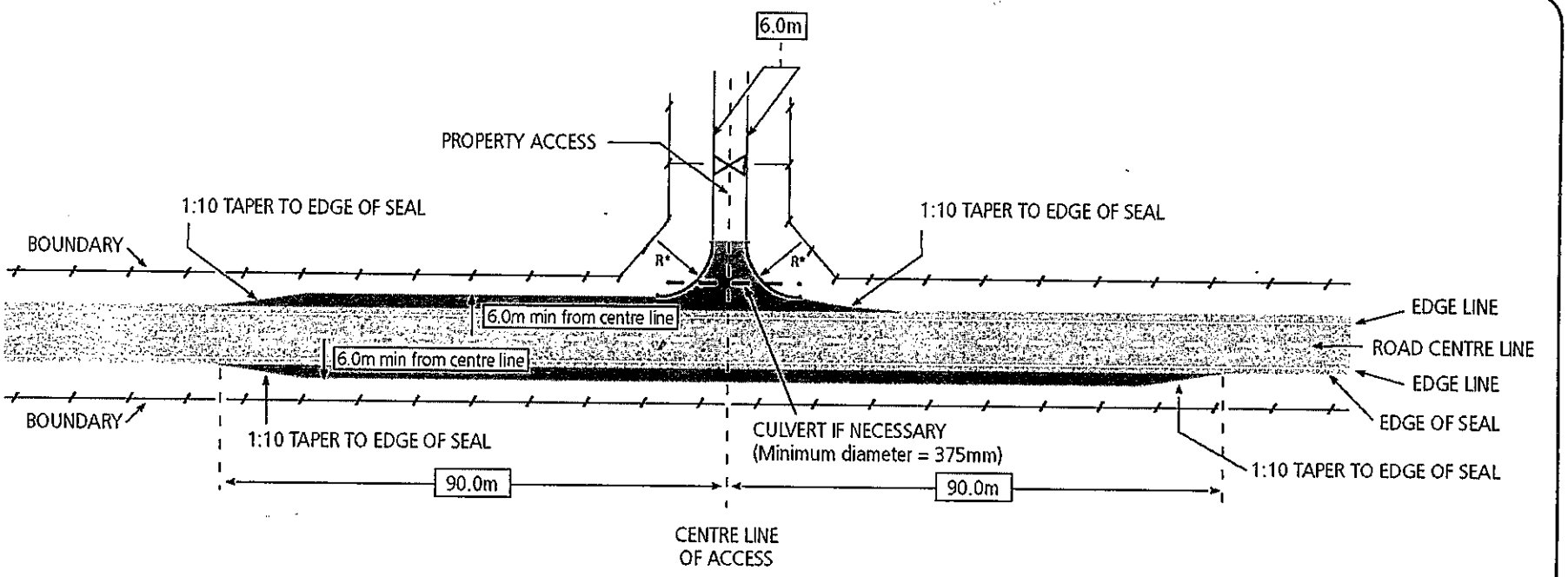


KEY
† Fatal
Dark
Wet
Icy
Peds
Cyclist

1 0 1 2Km 3Km

SH 11 Accident Report 2001 t0 2005

15 June 2006



Bellmouth Radii (R)

R = 9.0m	Light vehicle use (eg road side stalls)
R = 15.0m	Heavy vehicle use (eg tourist attractions and heavy vehicle land uses)

Area to be constructed and sealed

Note: All measurements are in metres

Gate to be recessed back from highway sufficient distance to allow any vehicle using the driveway to stop clear of the highway traffic lanes while the gate is being opened or closed

TRANSIT NEW ZEALAND ARARAU AOTEAROA

DIAGRAM D: MODERATE USE ACCESS STANDARD (31-100 ecm/day)

NOT TO SCALE

PERSPECTIVE D
TRANSIT NEW ZEALAND
ARARAU O AOTEAROA
90m
Centre of access
90m
1 in 10 Taper
6.0m (minimum)
6.0m (minimum)
Gate to be recessed back from highway sufficient distance to allow any vehicle using the driveway to stop clear of the highway traffic lanes while the gate is being opened or closed

TRANSIT NEW ZEALAND
ARARAU AOTEAROA

TNZ Ref: 8/1/4/4
Your Ref:

22 February 2007

26 FEB 2007

Far North Holdings Limited
P O Box 7
Opua
Bay of Islands

Attn: Malcolm Nicolson

Dear Sir

PROPOSED LAND USE FOR CLEAN FILL DEPOT
STATE HIGHWAY 11, OPUA, PAIHIA

This letter outlines Transit's position following assessment of the proposal. To reiterate our understanding the proposal is to deposit clean fill on a property for future development at Opua, Paihia. The site is legally described as Lot 12, DP 200225. The earthworks will occur over the next 10 years and the estimated quantity of fill on the property will be 45,000m^3. The site is currently accessed via one authorised crossing place (CP 83) from State Highway 11 and also via one unformed right of way over adjoining properties being Lot 9 DP180908 and Lot 1 DP139830 from Oromahoe Road.

The section of State Highway adjacent to the property is a Limited Access Road. Notes on the general significance of this are attached. Briefly this means that vehicular access is permissible only at a crossing place or road from which vehicular access has been authorised by Transit New Zealand

We have carefully considered the proposal and have resolved to remain **unopposed** to the application and we will be prepared to approve it in principle at this stage providing the following conditions are met:

- That crossing place (CP83) is upgraded to Diagram D standards with a 15m turning radius.
- That the vegetation shown in photographs 2 and 3 (as attached) which appears to be located within the subject site be trimmed and maintained to achieve sight distances of 185m and 155m respectively in the AD and AC vectors.
- That a wheel wash facility is provided at the site to keep the highway clear of any fill material.
- Construction drawings showing full details of the upgraded crossing place and associated works are forwarded to Transit's Network Manager (Works Infrastructure

Auckland Regional Office
Level 13 • Qantas House • 191 Queen Street • PO Box 1459 • Auckland • New Zealand
Telephone 09 368 2000 • Facsimile 09 368 2059

Ltd) - ph (09) 430 6300 and fax (09) 430 6342) for approval 15 working days before the commencement of work. The construction drawings will need to show full details of Transit's requirements as set out above. **No work can commence on site until this written approval is received.**

If construction or construction traffic affects the normal operation condition of the State highway (we believe this work will), you will need to seek approval from Transit's Network Management Consultant (Works Infrastructure Ltd) to work on/adjacent to the State highway. As part of this process you are required to submit a Traffic Management Plan in accordance with Transit's 'Code of Practice for Temporary Traffic Management' at least 10 working days prior to the commencement of work. **No work can commence on site until this written approval is received.**

This recommendation is made for the following reasons:

- The proposal is likely to generate 500 additional ecms per day for a period of two weeks per year over 10 years.
- Sight distances from the crossing place (CP 83) range from 136m to 217m that are considered moderate to good.
- Sight distances in the AD and AC vectors could be improved to 185m and 155m respectively by removing/trimming the vegetation shown in photographs 2 and 3 of the report prepared by Works Infrastructure and attached.

Transit will be in a position to provide a formal written response to the proposal (in terms of Section 94(2)(b) of the Resource Management Act) upon a resource consent application being submitted to Council for lodgement and a copy forwarded to Transit for comments.

Please note that Transit's response to this proposal is largely confined to traffic effects on the State highway. It is noted that the proposed development is a discretionary activity under the District Plan. Council is likely therefore to have other planning matters to take into account when considering approval to your application.

This response is Transit New Zealand's current view of the situation. Please note that if this proposal is put on hold for any length of time and resubmitted at a later date Transit may need to review its comments in the light of any traffic, safety or policy change.

Yours sincerely

Susan Stearn
Consultant Planner

Cc: Far North District Council – Regulatory Services Administration
Works Infrastructure Ltd (NTC 964)
Richard Green

FAR NORTH DISTRICT COUNCIL

FAR NORTH OPERATIVE DISTRICT PLAN
DECISION ON RESOURCE CONSENT APPLICATION (LANDUSE)

Condition 4 ix) (a) revised as per section 133A of the Resource Management Act 1991 (the Act) that provides for minor corrections

Resource Consent Number: 2300245-RMALUC

Pursuant to section 104B of the Act, Far North District Council (FNDC) hereby grants resource consent to:

Far North Holdings Ltd (FNH)

to deposit approximately 8,000 m³ of clean fill sourced from activities authorised on Lot 1 DP 199965 and Lot 5 DP 516983 under RC2180514 onto the 4.5572 hectare receiving site.

The fill is part of the overall works volume previously approved under RC2190300 that granted consent on 21 June 2019 to deposit approximately 45,000 m³ of dredging spoil and other clean fill onto the site, with the overall depth of approved fill being less than 2.5 metres over approximately 3.1 hectares. These works included filling existing drains and infilling approximately 0.9 hectares of a wetland. Although not confirmed, it was indicated that the subject site (RC2190300) would likely receive some of the surplus cut material generated through RC2180514.

Clean fill deposited on site through RC2300245 will gain access via existing crossing place CP83 onto the State highway, with the crossing to be upgraded. For the balance of works approved through RC2190300 (37,000 m³), conditions of that consent require crossing place CP83 to be relocated and formed as per the requirements of the New Zealand Transport Agency (NZTA).

The current proposal for up 8,000 m³ of earthworks is a discretionary activity in the Coastal Living zone with consent required under the rules relating to screening for neighbours for non-residential activities, vehicle movements (up to 100 daily) and excavation.

As per conditions of agreement sought by the NZTA and agreed to by the consent holder, this resource consent has a lapse date six months after the date of commencement of consent.

Subject Site Details

Address:	Paihia Road (State Highway 11), Opua
Legal Description:	Lot 12 DP 200225 (NA126B/910)

Pursuant to section 108 of the Act, this consent is issued subject to the following conditions:

1. That subject to incorporating any changes required by the following conditions of consent, the land use shall be undertaken in general accordance with the application prepared by Bay of Islands Planning and the technical information/reports supporting the proposal (and RC2190300 where relevant), including the approved plans attached to this consent with FNDC's 'approved' stamp affixed to them.

   In particular, the work shall be carried out generally in accordance with various reports (including extracts) and plans prepared by Northern Civil, Consulting Engineers Ltd, (Northern Civil) which have been included and/or referred to in the application for RC2190300 and RC2300245.

2. That the total volume of works approved on site within RC2300245 and RC2190300 shall not exceed 45,000 m^3, with the volume approved under RC2300245 being part of the works approved within RC2190300.

3. A copy of this consent shall be provided to the contractor/s undertaking the work prior to commencement of any work/s on site. All personnel working on the site shall be made aware of and have access to at least one copy of the resource consent, associated reference documents and management plan/s for the duration of the project. This includes the sediment controls, traffic management plan and the site management plan. This condition shall apply to the development throughout the consent period and any updated information supplied throughout the consent period.

4. Prior to the site works commencing, the consent holder shall:

   i) Establish and mark the location of the boundary pegs and mark all property boundaries adjacent to the proposed earthworks. This condition shall apply to throughout the period works.

   ii) Install the clean water diversion drains around the periphery of the site in accordance with the plans prepared by Northern Civil and submitted in support of RC2190300 and RC2300245 to the satisfaction of FNDC's resource consents engineer or designate. This will require written certification from a suitably qualified and experienced engineering professional.

      Note: The drains shall be checked prior to work commencing and maintained as per the plans for the duration of work.

   iii) Supply FNDC's monitoring officer a copy of the sediment controls approved by Northland Regional Council (NRC) as per the conditions of consent relating to AUT.018351.01.02, AUT.018351.02.02, AUT.018351.03.02, AUT.018351.04.02 and AUT.018351.05 as applicable to the work being undertaken. In the instance that the approved controls are amended, the amended copy shall be forwarded to FNDC's monitoring officer within five working days of its approval or five working days prior to works commencing/continuing (whichever occurs first).

iv) Supply FNDC's monitoring officer a copy of the ecological enhancement plan approved by NRC as per the conditions of consent relating to AUT.018351.01.02, AUT.018351.02.02, AUT.018351.03.02, AUT.018351.04.01 and AUT.018351.05.01 as applicable to the work undertaken. In the instance that the approved plan is amended, the amended copy shall be forwarded to FNDC's monitoring officer within five working days of its approval or five working days prior to works commencing/continuing (whichever occurs first).

v) Provide a detailed progressive re-vegetation plan to reduce the visual impact of the proposed activity as viewed from the State highway and surrounding sites and address adverse effects upon local amenity as applicable to the work being undertaken. To be submitted for the approval of FNDC's principal planner or designate. The plan is to identify the species of plants/vegetation to be used, their numbers and locations on the site, the timeframe for implementation and the means of maintaining these plants for the following aspects:

    a. Road side planting consistent with NZTA's requirements for sightline visibility, while ensuring sufficient vegetation to provide screening along the road boundary. (Refer to condition 3 viii) below.)

    b. Re-vegetation of fill areas following completion of work as applicable. This shall have regard to the conditions of consent imposed by NRC relating to AUT.018351.01.02, AUT.018351.02.02, AUT.018351.03.02, AUT.018351.04.02 and AUT.018351.05. These conditions of consent require the following:

        - The maximum area of bare land exposed at any one time shall be no more than 0.5 hectares during the period 1 June to 31 October in any year, except for the year in which the placement of dredging material from the Paihia Waterfront Project occurs. All other areas of the site shall be effectively stabilised during this period to prevent erosion and sediment loss in accordance with the requirements of the condition below.

        - All bare areas of land created by the exercise of these consents shall be effectively stabilised against erosion and sediment loss; within two months of their construction for the outside face of all earth bund areas, and by 30 June on all other areas in each calendar year, except during the year when dredging spoil from the Paihia Waterfront project is deposited. Stabilisation measures shall include top-soiling and establishing with suitable vegetation, to achieve not less than an 80% groundcover, the placement of rock aggregate, or covering with mulch or other erosion protection material.

    Note: The above reference to dredging spoil from the Paihia Waterfront project relates to RC2190300 and not RC2300245. For the purposes of this consent, the NRC consent conditions above should be applied in the context of RC2300245.

vi) Provide a copy of the traffic management plan approved by NZTA for the activity and the construction drawings for the upgrading of existing crossing place CP83 to NZTA PPM Diagram C standard, as per correspondence from NZTA dated 19 October 2020. The existing access road from the State highway shall be metalled for the first 20 metres to minimise the transfer of spoil onto the State highway.

vii) Provide evidence to the satisfaction of FNDC's resource consents engineer or designate that existing crossing point CP83 and the access have been formed as per the above construction drawings. This may include correspondence from NZTA confirming that works to the State highway, including vehicle crossings, have been constructed to the Agency standards.

viii) Remove sufficient vegetation to the north (towards Paihia) and to the south (towards Kawakawa) of crossing place CP83 to achieve sight distances of at least 185 metres and 155 metres respectively.

Note: These sightlines shall be checked prior to works commencing and maintained whilst the works are in progress.

ix) Prepare and submit a site management plan (SMP) for the written approval of FNDC's principal planner or designate. It shall set out the methodologies, practices and procedures to be adopted in order to manage the operational aspects of the proposed work. No works shall be undertaken until this approval has been given in writing.

As a minimum the SMP shall include the following:

(a) Restrictions upon the hours of operation to between:

7.00 am and 18.00 pm Monday to Friday

8.00 am and 18.00 pm Saturday

with no work to occur on Sundays or public holidays. Works shall be limited to a maximum of 50 hours a week.

(b) A dust management plan including dust suppression measures for the works areas and cartage;

(c) A wheel wash facility shall be provided on site and used to keep the highway clear of any fill material.

(d) Construction methodology and timetable;

(e) Environmental emergency response procedures;

(f) Processes to be followed in wet weather;

(g) Procedures for addressing any potential impacts on archaeological sites;

(h) A vibration management plan to identify the sources of vibration and instances whereby vibration may have an adverse effect upon properties outside of the site, recommending where necessary the avoidance of equipment producing excessive or unnecessary vibration, and addressing limitations upon the hours of operation where vibration causing machinery is used.

(i) Traffic management;

(j) A noise management plan. It shall require all on-site works to be undertaken in compliance with the following thresholds:

- *Formation of the access, bunds and sediment control pond*

  Construction noise shall meet the limits recommended in, and shall be measured and assessed in accordance with NZS 6803P:1984 "*The Measurement and Assessment of Noise from Construction, Maintenance and Demolition Work*".

- *All other works*

  All activities shall be so conducted as to ensure that noise from the site shall not exceed the following noise limits at or within the boundary of any other site in this zone, or at any site zoned Residential, Russell Township or Coastal Residential, or at or within the notional boundary of any dwelling in any other rural or coastal zone:

0700 to 2200 hours	55 dBA L10
2200 to 0700 hours	45 dBA L10 and 70 dBA Lmax

  Noise Measurement and Assessment:

  Sound levels shall be measured in accordance with NZS 6801:1991 "*Measurement of Sound*" and assessed in accordance with NZS 6802:1991 "*Assessment of Environmental Sound*".

  The notional boundary is defined in NZS 6802:1991 "*Assessment of Environmental Sound*" as a line 20 metres from any part of any dwelling, or the legal boundary where this is closer to the dwelling.

(k) A record/complaints procedure to enable contractors to respond to and record public queries/complaints in a timely and efficient manner.

(l) A programme for the education and control (with respect to the environment) of employees and subcontractors to ensure that all personnel are briefed on environmental issues prior to commencing work.

(m) Mitigation and contingency measures for (but not limited to) the following:

i) Erosion control and construction material loss;

ii) Spills (including oils, hydraulic fluids, concrete washings);

iii) Occurrences of non-compliance;

iv) Failure of protection works or earthworks;

v) Water collection management

The SMP shall be consistent with the management plan prepared by Northern Civil, dated 26 June 2007 (as referenced in RC2190300).

It shall be updated throughout the course of the project to reflect changes to components of the project and the sediment controls approved by NRC.

The SMP shall be reviewed and revised as necessary prior to construction, at the commencement and at the completion of work.

No earthworks activity on the subject site shall commence/recommence until written confirmation is provided by Council that the SMP or any revisions have been approved.

5. The consent holder shall provide at least ten working days' notice in writing to the area engineer Northland of NZTA and FNDC's resource consent monitoring officer that the clean-fill operations are to commence. With respect to FNDC, this shall also include confirmation of the source of the material being transported to the site. If requested, the consent holder and/or contractor shall be available for a site meeting with FNDC's resource consent monitoring officer prior to works commencing.

6. The works shall be undertaken in accordance with the approved traffic management plan. In the instance that the approved plan is amended to the satisfaction of NZTA, the amended copy shall be forwarded to FNDC's monitoring officer at least five working days prior to works commencing.

7. The consent holder shall undertake the activities authorised by this consent in accordance with the approved SMP.

8. The sediment control system shall be established and maintained throughout the site works in accordance with the sediment controls approved by NRC.

9. The consent holder shall construct the earth bund around the perimeter of the site from clean fill which contains sufficient clay content to provide a non-porous barrier. This shall prevent the horizontal movement of clean water into the fill and/or the movement of potentially contaminated leachate into the adjacent stormwater drain. This shall be completed to the satisfaction of FNDC's resource consents engineer or designate prior to fill being transported to the site. This will require written certification from a suitably qualified and experienced engineering professional.

10. The roadside planting approved under condition 3. v) a. shall be implemented by the end of the first planting season (May-August) immediately following construction of the earth bund and shall be maintained for the duration of the activity to the satisfaction of FNDC's principal planner or designate. Written confirmation shall be provided from a suitably experienced person to FNDC's principal planner or designate within two weeks of implementation, including advice of the maintenance requirements that shall be fulfilled by the consent holder.

11. Following the works, the fill areas shall be revegetated and maintained as per the planting approved under condition 3. v) b. to the satisfaction of FNDC's principal planner or designate. Written confirmation shall be provided from a suitably experienced person to FNDC's principal planner or designate within two weeks of implementation, including advice of the maintenance requirements that shall be fulfilled by the consent holder.

12. If spoil/detritus being transferred to the site is deposited onto the State highway or a local road, such that it becomes a safety hazard (as identified by either the consent holder, NZTA or FNDC), then the activity shall cease until measures are taken, as detailed in the application, to ensure that the potential hazard is rectified to the satisfaction of NZTA or FNDC. This shall be at the expense of the consent holder.

13. Upon completion of the work, the consent holder shall:

    i) Provide an as-built plan showing the area and depth of fill material.

    ii) Provide written confirmation (PS4) from a suitably qualified chartered professional engineer that the fill material has been properly compacted and the site is suitable for future development. The confirmation shall specify the type of development applicable for the site and any specific foundation design parameters.

14. All bare areas of land created by the exercise of this consent shall be reinstated/ stabilised as per the NRC's conditions of consent relating to AUT.018351.01.02, AUT.018351.02.02, AUT.018351.03.02, AUT.018351.04.01 and AUT.018351.05.01. Evidence shall be made available to FNDC upon request.

15. Upon request, the consent holder shall provide evidence that the ecological enhancement plan approved by NRC has been successfully implemented and/or established as per the conditions of consent relating to AUT.018351.01.02, AUT.018351.02.02, AUT.018351.03.02, AUT.018351.04.01 and AUT.018351.05.01.

16. If any historical, cultural or archaeological material (including any artefact) of Maori origin or likely to have significance to Maori, is found or uncovered in the course of giving effect to the consent, then all activities within a minimum radius of 20 metres of the discovery shall cease immediately. The consent holder shall give written notice of the find to FNDC's principal planner or designate within two working days, outlining the measures proposed to protect the material found. Works shall only recommence upon the consent holder receiving FNDC's written approval to do so. (Please note, prior to issuing any written approval, FNDC will likely undertake consultation with Te Runanga o Ngati Hine and the Waikare Maori Committee, unless the consent holder has provided their written advice that the proposed protection measures are adequate. (Refer to advice note 5.)

17. Written notice shall be provided to FNDC's principal planner or designate at least five working days prior to the removal of any erosion and sediment control works required by this consent.

18. FNDC may, in accordance with section 128 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent. The review may be initiated for any one or more of the following purposes:

    (a) To deal with any adverse effects on the environment that may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or to deal with any such effects following assessment of the results of the monitoring of the consent and/or as a result of the FNDC's monitoring of the state of the environment in the area.

    (b) To require the adoption of the best practicable option to remove or reduce any adverse effect on the environment.

    (c) To provide for compliance with rules in any district plan that has been made operative since the commencement of the consent.

    (d) To deal with any inadequacies or inconsistencies FNDC considers there to be in the conditions of the consent, following the establishment of the activity the subject of the consent.

    (e) To deal with any material inaccuracies that may in future be found in the information made available with the application (notice may be served at any time for this reason). This includes, but is not limited to, noise and traffic.

    (f) To change existing, or impose new limits on total suspended solids.

    The consent holder shall meet all reasonable costs of any such review.

Advice Notes

1. The planning report prepared by Bay of Islands Planning and submitted with the application indicates that the activity is not anticipated to generate noise levels exceeding the permitted activity thresholds for activities in the Coastal Living zone. Conditions of consent have been applied accordingly. A review condition also provides the ability for FNDC to deal with any inadequacies or inconsistencies in the conditions of the consent, following the establishment of the activity and to deal with any material inaccuracies that may in the future be found in the information made available with the application.

2. The consent holder will be responsible for the repair and reinstatement of the State Highway 11 carriageway where it is damaged as a result of the earthworks. Such works, where required, shall be to the satisfaction of NZTA.

3. The consent holder is responsible for arranging for buried services to be located and marked prior to commencing earthworks and is also responsible for the repair and reinstatement of any underground services damaged as a result of the earthworks.

4. In addition to the conditions of consent, the Resource Management Act 1991 establishes through sections 16 and 17 a duty for all persons to adopt the most practicable option to ensure that the emission of noise does not exceed a reasonable level, and to avoid, remedy or mitigate any adverse effects created from an activity they undertake.

5. Archaeological sites are protected pursuant to the Heritage New Zealand Pouhere Taonga Act 2014. It is an offence, pursuant to the Act, to modify, damage or destroy an archaeological site without an archaeological authority obtained from Heritage New Zealand. Should any site be inadvertently uncovered, the procedure is that work should cease, with local iwi (including Te Runanga o Ngati Hine and the Waikare Maori Committee) consulted immediately. The New Zealand Police should also be consulted if the discovery includes koiwi (human remains). A copy of the Historic Places Trust's Accidental Discovery Protocol (ADP) is attached for the consent holder's information. This should be made available to all person(s) working on site.

6. On 15 January 2019 NRC granted consent to the proposed under RC2190300 as follows:

AUT.018351.01.02	Place approximately 45,000 m^3 of dredging spoil and cleanfill earthworks from various land excavation sites.
AUT.018351.02.02	Discharge contaminated stormwater and leachate from dredging spoil and earthworks activities to land and water.
AUT.018351.03.02	Divert existing drains, floodwater and stormwater associated with site filling operations.
AUT.018351.04.02	Drain and place fill within a reverted wetland.
AUT.018351.05.02	Install a floodgate within an unnamed drain at about location co-ordinates 1700912E 6090653N.

NRC's assessments considered dust and noise control, and erosion and sediment control; including runoff diversion, silt control, sediment detention ponds, revegetation and maintenance of the area.

NRC circulated a copy of the application to Te Runanga A Iwi O Ngapuhi, Waikare Marae Maori Committee Marae Trustees, Waitangi Marae Trustees, Kororareka Marae Society Incorporated, Te Tii (Waitangi) B3 Trust and Nga Tirairaka o Ngati Hine Trust for comment.

These approvals incorporate the works proposed under the current consent, RC2300245.

7. The Regional Air Quality Plan for Northland includes conditions/standards to ensure that any dust discharge does not result in an offensive or objectionable nuisance beyond the property boundary.

8. In assessing the effects of the vehicle movements for the current activity, FNDC's emphasis has been placed upon the effects upon the State highway. NZTA is responsible for the planning and management of the state highway system. NZTA has provided written approval to the proposal, as per correspondence dated 19 October 2020, and the consent holder has volunteered conditions of consent accordingly. These have applied to the consent.

9. Where required, conditions of this consent will be monitored by FNDC's resource consent monitoring officers. Any documentation relating to compliance should be sent to rcmonitoring@fndc.govt.nz. In the event of a situation arising requiring monitoring, the consent holder will be responsible for covering the actual and reasonable costs incurred, including providing an acoustic assessment, if required, prepared by a suitably qualified and experienced person.

10. As per correspondence dated 19 October 2020, NZTA advises –

    i. That upon the expiry of this consent, no further clean fill operations (regardless of scale or duration) shall occur on the subject site until such time that CP83 is upgraded to a Diagram E standard as required by condition 3(vi) of 2190300-RMALUC.

    ii. The applicant is to obtain an 'Agreement as to Works' from NZTA in order to undertake construction works on the State highway in terms of section 51 of the Government Roading Powers Act 1989. An application to that effect can be made to NZTA's Network Manager (dale.roberts@nzta.govt.nz or phone 020 5933 8756).

    iii. Construction drawings showing full details of the access upgrading works, any associated works, methodology and TMP are forwarded to the NZTA's Network Manager for approval at least 15 working days before the commencement of works. The construction drawings will need to show full details of NZTA requirements as set out above.

    iv. The applicant is to advise NZTA's Network Manager, the name(s) of the firm/persons who will be doing the works on the crossing place and associated works, and the time when it will done, at least ten working days prior to commencing works.

    v. It is absolutely necessary that this approval and agreement from the NZTA is obtained as a matter of priority before commencing any upgrade works on the State highway, as no works on the State highway may commence until approval for the works has been given.

    vi. Post construction compliance and crossing place registration – The applicant is to inform NZTA once the upgrade has been completed for a final compliance check to be undertaken and to confirm that all the conditions have been met to NZTA's satisfaction.

    vii. To comply with NZTA's conditions and any application for works approval within the State highway, in the first instance please contact the Northland Senior Network Manager on dale.roberts@nzta.govt.nz or phone 020 5933 8756.

Reasons for the Decision

1. Application details

The application details; including the proposal, district plan zoning and other notations have been outlined in the notification assessment report. In addition, the notification assessment details the reasons for consent, the application site and the surrounding environment.

2. Principal issues in contention and main findings on those issues:

Pursuant to section 104B of the Act, after considering an application for discretionary resource consent, FNDC may grant or refuse the application, and if it grants the application, may impose conditions under section 108 of the Act.

The principal issues in contention relate to traffic and roading; dust; noise; vibration; natural character, landscape character and visual amenity, ecological values; heritage resources; and cultural and spiritual values. FNDC has determined (by way of an earlier report and resolution addressing the Act's requirements relating to notification) that the adverse environmental effects associated with the proposed activity will be no more than minor and that there are no affected persons, customary rights group or customary marine title group.

3. Relevant Statutory Provisions:

The objectives and policies of the Far North District Plan of direct relevance to the proposal are included in Chapter 10 – Coastal Environment (Section 10.7 Coastal Living zone) and Chapter 12 – Natural and Physical Resources (Section 10.3 - Soils and minerals).

In terms of Section 10.7 Coastal Living, the following objectives and policies are considered relevant to the proposal:

Objective *10.7.3.2 To preserve the overall natural character of the coastal environment by providing for an appropriate level of subdivision and development in this zone.*

Policy *10.7.4.1 That the adverse effects of subdivision, use, and development on the coastal environment are avoided, remedied or mitigated.*

10.7.4.2 That standards be set to ensure that subdivision, use or development provides adequate infrastructure and services and maintains and enhances amenity values and the quality of the environment.

10.7.4.3 Subdivision, use and development shall preserve and where possible enhance, restore and rehabilitate the character of the zone in regards to s6 matters, and shall avoid adverse effects as far as practicable by using techniques including:

a) clustering or grouping development within areas where there is the least impact on natural character and its elements such as indigenous vegetation, landforms, rivers, streams and wetlands, and coherent natural patterns;

b) minimising the visual impact of buildings, development, and associated vegetation clearance and earthworks, particularly as seen from public land and the coastal marine area;

d) *through siting of buildings and development, design of subdivisions, and provision of access that recognise and provide for the relationship of Maori with their culture, traditions and taonga including concepts of mauri, tapu, mana, wehi and karakia and the important contribution Maori culture makes to the character of the District (refer **Chapter 2**, and in particular **Section 2.5**, and Council's "Tangata Whenua Values and Perspectives (2004)");*

e) *providing planting of indigenous vegetation in a way that links existing habitats of indigenous fauna and provides the opportunity for the extension, enhancement or creation of habitats for indigenous fauna, including mechanisms to exclude pests;*

In terms of Section 10.3 Soils and minerals, the following objectives and policies are considered relevant to the proposal:

Objective *12.3.3.1 To achieve an integrated approach to the responsibilities of the Northland Regional Council and Far North District Council in respect to the management of adverse effects arising from soil excavation and filling, and minerals extraction.*

12.3.3.2 To maintain the life supporting capacity of the soils of the District.

12.3.3.3 To avoid, remedy or mitigate adverse effects associated with soil excavation or filling.

Policy *12.3.4.1 That the adverse effects of soil erosion are avoided, remedied or mitigated.*

12.3.4.4 That soil excavation and filling, and mineral extraction activities be designed, constructed and operated to avoid, remedy or mitigate adverse effects on people and the environment.

12.3.4.5 That soil conservation be promoted.

Having reviewed the proposal in light of the Plan's above objectives and policies, on the basis of assessments undertaken previously for R2190300, no general conflicts or inconsistencies have been identified. The proposal will give effect to the relevant objectives and policies of the Far North District Plan, particularly those that seek to manage excavation and filling, and preserve local character and amenity. The proposal will not undermine future development options on the site, more likely reducing the effects of natural hazards by raising the ground level for future built development.

Whilst the earthworks have the potential to result in some adverse environmental effects, any effects will be avoided, remedied or mitigated through various measures as outlined within the application and recommended as conditions (including restricting the hours of operation, erosion and sediment controls, upgrading crossing place CP83, the removal of sufficient vegetation to the north and to the south of the crossing to achieve sight distances of 185 metres and 155 metres respectively, the ecological enhancement plan, site planting, restricting noise levels, and site remediation requirements).

In granting consent to the proposal, NRC has determined that the proposal is consistent with the relevant objectives and policies of the Regional Policy Statement for Northland, the Regional Water and Soil Plan, and the Proposed Regional Plan. FNDC accepts and adopts NRC's assessment in this regard.

Part 2 Matters

Part 2 of the Resource Management Act sets out the purpose and principles of the Act, including matters of national importance.

In seeking to grant approval to the proposal, the activity is regarded as achieving the purpose of the Act in that the development represents the sustainable management of natural and physical resources. GHD modelled flooding shows the site as subject to 5 year, 10 year and 100 Year ARI Floodplains, and NRC has identified the site as an area of potential flooding. The proposal also has regard to site drainage and flood levels, with the finished ground level to be above the existing flood level thereby facilitating future development.

Whilst the site is currently grazed, it does not include any highly versatile soils.

As the proposed mitigation measures should generally avoid, remedy and mitigate the adverse effects of the project, the proposal is regarded as consistent with the purpose of the Act.

Section 6 of the Act lists seven matters of national importance that must be recognised and provided for in the decision on the application. The proposed earthworks will not have any long term adverse effect on the values set out under section 6 as:

- The coast is not a significant part of the landscape.
- NRC's mapped biodiversity wetlands identify many different kinds of wetland – including swamps, bogs, marshlands, gumlands, saltmarshes and mangroves. The wet area on site is not shown as a biodiversity wetland.
- The Act does not distinguish between significant and insignificant wetlands. The applicant is however proposing measures through RC2190300 and Rc2300245 to offset infilling the wetland on site. New Zealand Environmental recommend that "*the area of wetland east of State Highway 11 be investigated as to the potential to reduce weeds, improve ecological function and increase native dominance there so as to mitigate the adverse effects of the proposal and reduce the overall effects so that they are not more than minor. In the event that the nearby site is insufficient or unavailable, other offsite mitigations on land under Far North Holdings Limited's control should be assessed and considered for their potential to mitigate effects*". Condition 4 of NRC's consent requires the consent holder to prepare an "*Ecological Enhancement Plan*" (EEP) by a suitably qualified and experienced ecologist. The EEP is required to include details of the measures to be undertaken to protect, or relocate native musk plants to a suitable offsite wetland habitat; plans detailing the location of all alternative wetland areas into which native musk plants are to be transplanted; and details of the monitoring and maintenance requirements for the successful establishment of native musk plants for an initial period of three years.
- There are no recorded or registered archaeological sites applying to the site, and the District Plan does not identify any historic sites or sites of cultural significance to Maori. Therefore the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga is unlikely to be undermined.

- The finished ground level (including works approved through RC2190300 and RC2300245)) will be above the existing flood level thereby managing the risks for future development associated with natural hazards.

In terms of section 7, this section of the Act lists eleven matters that FNDC must have particular regard to. The primary consideration in this instance relates to the maintenance and enhancement of amenity values. Given the existing and historic use of the land area affected, combined with the requirement to establish roadside plantings, the quality of the environment and its amenity values are unlikely to be compromised by the proposal. FNDC records indicate that historically the underlying title, Lot 8 DP 180908, was used as fill area, this includes the area of the subject site (RC1980426 subdivided Lot 8 DP 180908 into four lots, including the subject site.)

In terms of the intrinsic values of ecosystems, and the maintenance and enhancement of the quality of the environment, as previously discussed, the applicant proposes to offset the effects of infilling the wetland through RC2190300 and RC2300245. None of the other matters mentioned in Section 7 are considered to be relevant to the application.

Section 8 of the Act requires that all persons exercising functions and powers under the Act take into account the principles of the Treaty of Waitangi in managing the use, development and protection of natural and physical resources. FNDC's 'Local Maps' do not identify the site as including any sites of cultural significance or historic sites. It is not a Treaty of Waitangi settlement property. The estuary to the east is rohe moana (defined customary fishing area) for Ngati Kuta/Patukeha (Te Rawhiti Marae) – this is approximately 60 metres to the east of the site (at its closest point), separated by the State highway and former railway line that is now part of the Pou Herenga Tai - Twin Coast cycle trail. As per FNDC's notification assessment, it is not considered that the land use would impact adversely upon the relationship of Maori and their culture and traditions with their ancestral lands, water, sites of waahi tapu and other taonga.

4. Overall Evaluation

Having considered the application against the relevant provisions of the Act and the District Plan, it is recommended that this application be granted subject to requiring the development to be undertaken as per the plans and information submitted.

Approval

This resource consent has been prepared by Liz Searle, Senior Planner, and is granted under delegated authority (pursuant to section 34A of the Resource Management Act 1991) from FNDC by:

Pat Killalea
Principal Planner, District Services

Date: 25th November 2020

Right of Objection

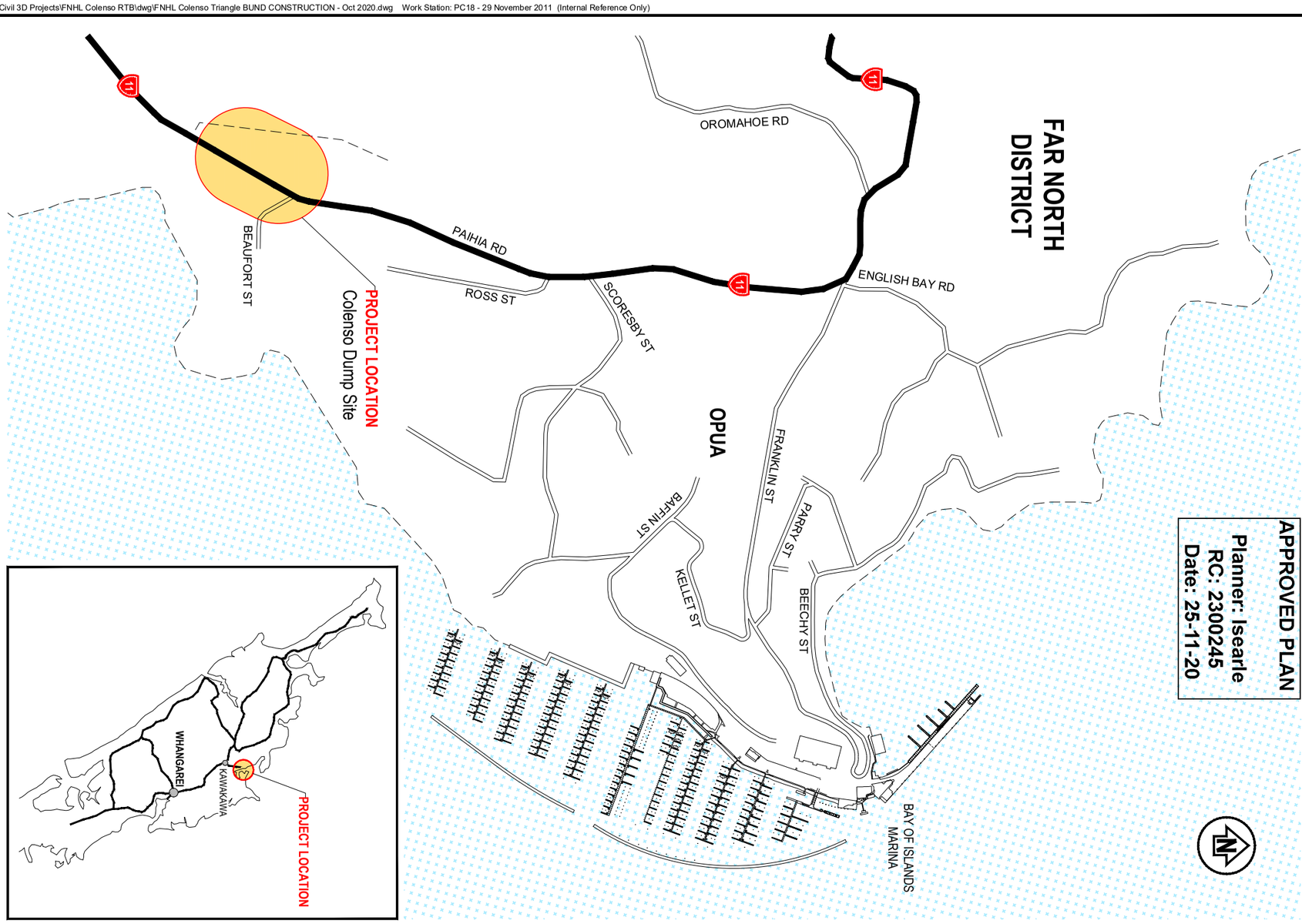
If you are dissatisfied with the decision or any part of it, you have the right (pursuant to section 357A of the Resource Management Act 1991) to object to the decision. The objection must be in writing, stating reasons for the objection and must be received by FNDC within 15 working days of the receipt of this decision.

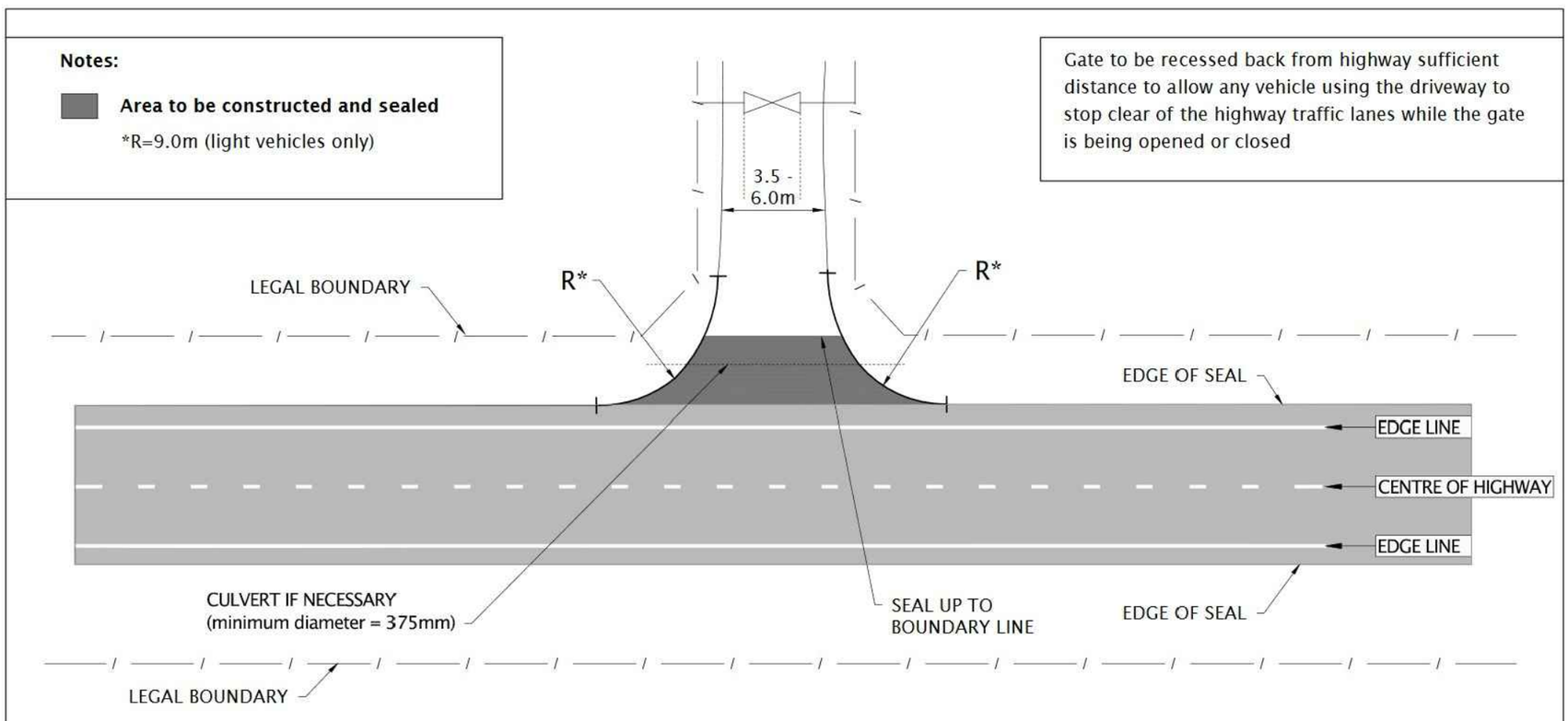
Lapsing of Consent

As per conditions of agreement sought by NZTA and agreed to by the consent holder, pursuant to section 125 of the Resource Management Act 1991 this resource consent will lapse **six months** after the date of commencement of consent unless, before the consent lapses;

(a) It is given effect to before the end of that period; OR

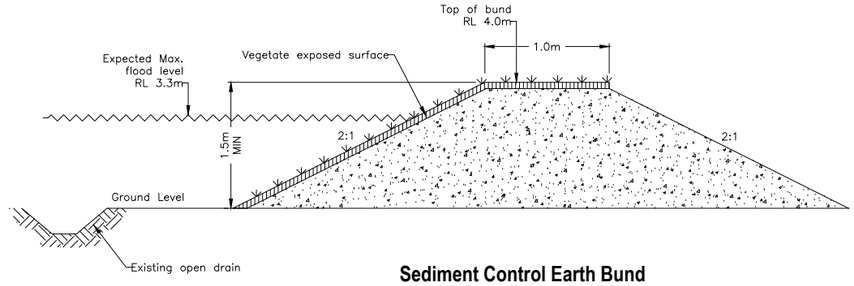
(b) An application is made to FNDC to extend the period after which the consent lapses and FNDC decides to grant an extension. The statutory considerations that apply to extensions are set out in Section 125(1)(b) of the Resource Management Act 1991.





APPROVED PLAN

Planner: Isearle
RC: 2300245
Date: 25-11-20



Sediment Control Earth Bund
Typical Details

Max flood line
RL 3.3m
BOUNDARY
Existing road
RL 3.70m
Design earth bund
Proposed
internal grade
Existing road
RL 3.47m
New Ø375mm
RCRRJ culvert
Secure gate
Entrance to be formed
to **Diagram C** standards
20.0m
3.0m
Temporary access
100mm deep GAP 100
Ø300mm PVC pipe
Non-return flap
Existing road
RL 6.10m
Ø300mm PVC pipe
Non-return flap
Existing Ø900mm
culvert crossing
Invert RL 1.661
STATE HIGHWAY 11
Existing fenceline
Max flood line
RL 3.3m
BOUNDARY
Max flood line
RL 3.3m
Design earth bund
T.O.B RL 4.0m
B
B
B - B
Boundary
Sediment
control bund
Existing Ground
Refrom existing
open drain
Max flood line
RL 3.3m

D:\Civil 3D Projects\FNHL Colenso RTB\dwg\FNHL Colenso Triangle BUND CONSTRUCTION - Oct 2020.dwg Work Station: PC16 - 29 November 2011 (Internal Reference Only)

DRAWN:	DATE:	REV.	DRAWING STATUS - TENDER	BOUNDARY ACCURACY - LOW
A.D.	19/10/20			
CHECKED: C.H.	19/10/20			
APPROVED:				

Far North Holdings Ltd

NCC consulting engineers

PROJECT:	SH11 Region 1 RP. 0/9.5 Far North Holdings Limited Colenso Dump Site, Paihia Road	JOB NO.	1282
		CLIENT REF.	–
TITLE:	BUND CONSTRUCTION PLAN		
SCALE: 1 : 1000	ORIGINAL PAPER SIZE A3	SHEET NO.	1/1 R0