

NELSON CITY COUNCIL

Cable Bay Road Remediation, Contract No: EC 3424

Tender Issue

DRAWING Rev Title

GENERAL INFORMATION - SITE 4

- 870982.1004-00 A Location Plan and Drawing List
- 870982.1004-01 A Existing Site and Site Investigation Plan
- 870982.1004-02 A Working Areas & Erosion Sediment Control Plan

RETAINING WALL DESIGN - SITE 4

- 870982.1004-10 A General Arrangement
- 870982.1004-20 A Section and Elevation
- 870982.1004-30 A Typical Anchored Timber Pole Wall Detail
- 870982.1004-40 A Anchor and Waler Details

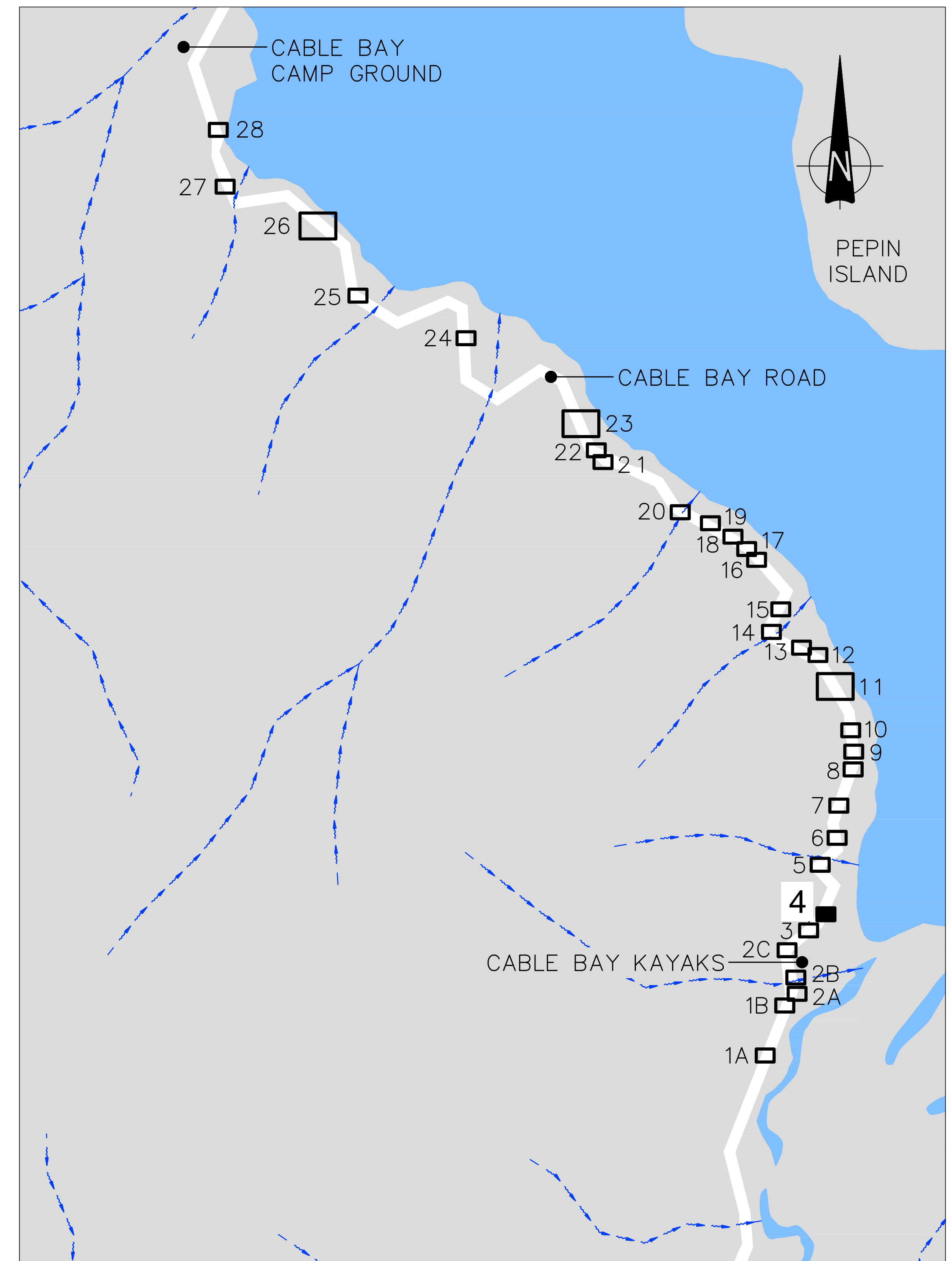
• Denotes drawing this issue: 08/05/2013



Topomap sourced from Land Information New Zealand data (Crown Copyright Reserved).

LOCALITY MAP

SCALE 1: 100,000 (A1)



SITE LOCATION PLAN

SCALE 1:5,000 (A1)

<p>Nelson City Council te kaunihera o whakatū</p> <p>NETWORK SERVICES DEPARTMENT</p>	<p>APPROVED</p> <p>EXECUTIVE MANAGER NETWORK SERVICES</p>
	<p>DATE 15/4/2013</p>
<p>NCC Plan No. 19-0076</p>	

DRAWING STATUS: TENDER ISSUE

DESIGNED :	DJA	Feb. 13	NOTES :
DRAWN :	AMC	Feb. 13	
DESIGN CHECKED :			
DRAFTING CHECKED :			
CADFILE :	\\870982.1004-00.dwg		
APPROVED :	NOT FOR CONSTRUCTION		
<p>1 Consultation Issue MPD Nov. 12</p> <p>This drawing is not to be used for construction purposes unless signed as approved</p>			REFERENCE :
REVISION DESCRIPTION	BY	DATE	



43 Halifax St, Nelson
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CLIENT, PROJECT	NELSON CITY COUNCIL CABLE BAY ROAD REMEDIATION	
TITLE	GENERAL INFORMATION - SITE 4 Location Plan and Drawing List	
SCALES (AT A1 SIZE)	DWG. No.	REV.
AS SHOWN	870982.1004-00	A



LEGEND

- Approximate edge of seal
- - - Property Boundary
- ▲ Landslip head scarp
- - - 10 Existing contours (5m interval)
- - - Existing contours (0.5m interval)
- Fo Fibre optic cable
- ← Stormwater Flow Path
- ~ Existing Watercourse
- Existing Culvert Pipe
- ⊗ SC Scala penetrometer test location
- ⊕ DH 1 Drillhole test location
- ◇ AH 1 Machine auger hole location
- ⊗ PH 1 Fibre optic pothole location
- 1000 Distance along road alignment (From State Highway 6 intersection)

Nelson City Council
 te kaunihera o whakatū

APPROVED

EXECUTIVE MANAGER
 NETWORK SERVICES

DATE: 15/4/2013

NCC Plan No. 19-0076

A3 SCALE 1:200
 A1 SCALE 1:100

0 1 2 3 4 6 8 10 (m)

DRAWING STATUS: TENDER ISSUE

DESIGNED :	MPD	Jan. 13
DRAWN :	AMC	Jan. 13
DESIGN CHECKED :		
DRAFTING CHECKED :		
CADFILE :	\\870982.1004-01.dwg	
APPROVED :	NOT FOR CONSTRUCTION	
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REVISION DESCRIPTION	BY	DATE
1 Consultation Issue	MPD	Nov. 12

NOTES :

- Nelson Circuit (2000) coordinates. Levels to NCC Datum.
- The Contractor shall confirm the location/depth of all services prior to any excavation.
- All works shall comply with the latest version of the NCC Land Development Manual and all amendments.
- Works outside the reconstruction area shall be reinstated as per NCC Land Development Manual.
- Special care shall be taken to ensure there is no damage to fences and gardens on private property. Any damage is to be repaired promptly at the Contractor's cost.
- Property boundaries, services location and culvert location supplied by DOP Ltd.

REFERENCE : LiDAR contours and aerial photos supplied by NCC.

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CLIENT, PROJECT	NELSON CITY COUNCIL	
	CABLE BAY ROAD REMEDIATION	
TITLE	GENERAL INFORMATION – SITE 4	
	Existing Site and Site Investigation Plan	
SCALES (AT A1 SIZE)	DWG. No.	REV.
1:100	870982.1004-01	A

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Lot 1
DP 420844

Lot 4
DP 5832

Lot 3
DP 5832

LEGEND

- Approximate edge of seal
- - - Property Boundary
- ▲ Landslip head scarp
- - - 10 Existing contours (5m interval)
- - - Existing contours (0.5m interval)
- Fo Fibre optic cable
- ← Stormwater Flow Path
- ← Existing Watercourse
- Existing Culvert Pipe
- ① Setout Point
- 1000 Distance along road alignment (From State Highway 6 intersection)

SETOUT

Point	Northing (mN)	Easting (mE)
1	811103.97	410558.11
2	811094.63	410552.67

Note:
Existing overhead powerlines
close to working area

A3 SCALE 1: 100
A1 SCALE 1: 50

DESIGNED :	RP	Feb.13
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1 Consultation Issue	MPD	Nov.12

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DRAWING STATUS: TENDER ISSUE

CLIENT, PROJECT
NELSON CITY COUNCIL
CABLE BAY ROAD REMEDIATION

TITLE
RETAINING WALL DESIGN – SITE 4
General Arrangement

SCALES (AT A1 SIZE)
1: 50

DWG. No.
870982.1004-10

REV.
A

Nelson City Council
te kaunihera o whakatū

NETWORK SERVICES DEPARTMENT

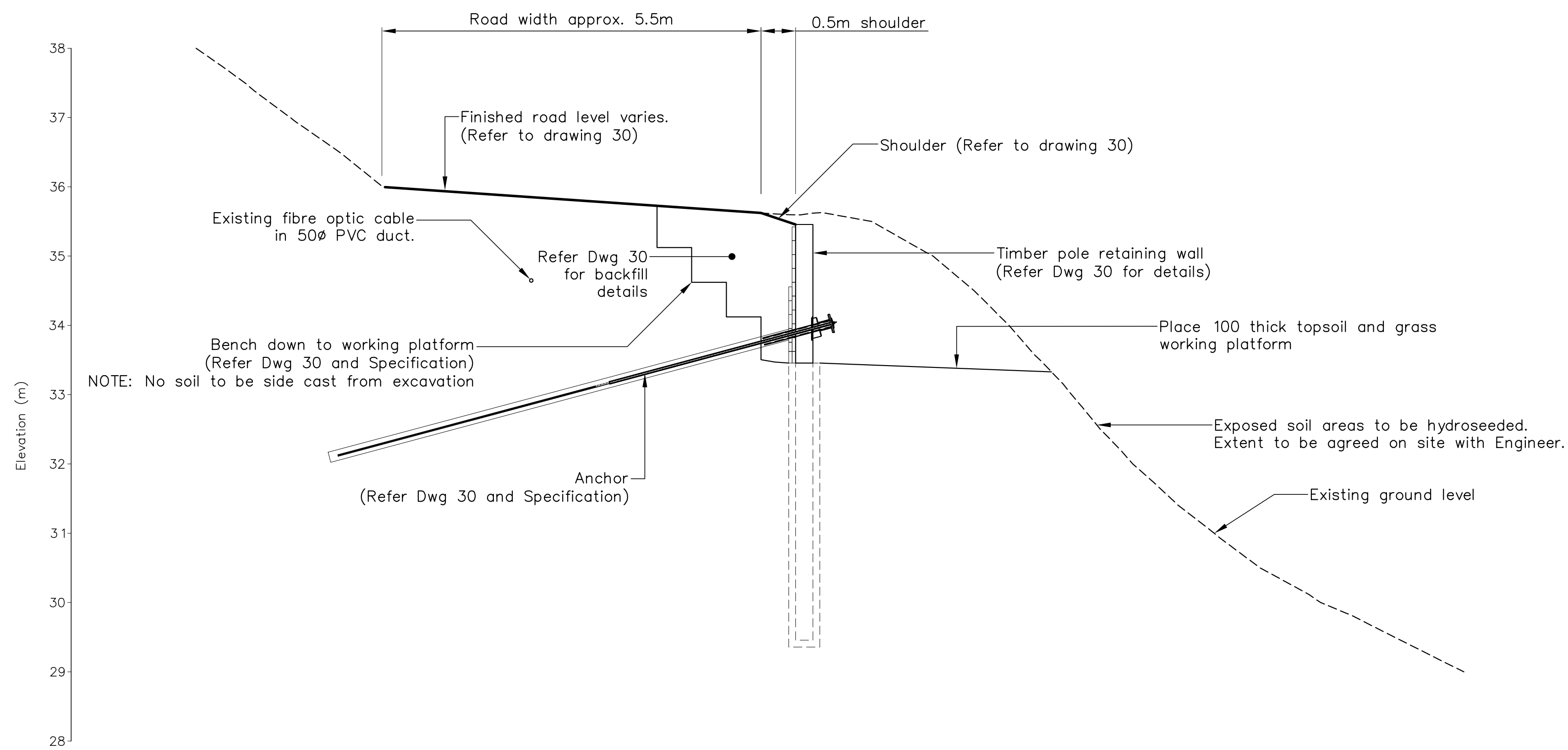
APPROVED

EXECUTIVE MANAGER
NETWORK SERVICES

DATE .15./4./20.13

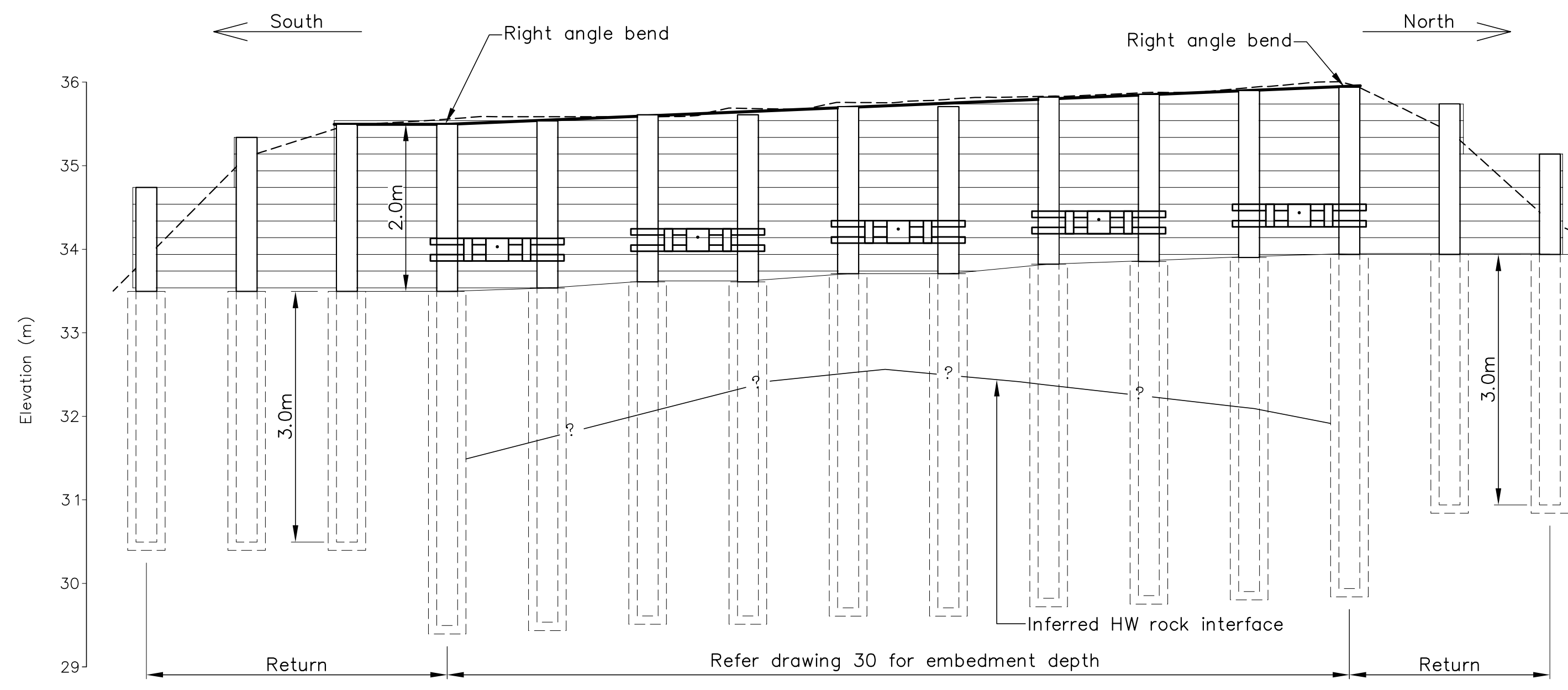
NCC Plan No. **19-0076**

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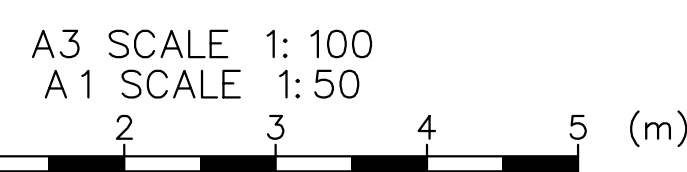
- CONSTRUCTION SEQUENCE**
1. Cut platform.
 2. Install poles.
 3. Place lagging.
 4. Place hardfill and drainage metal with 150Ø PVC tubes through hardfill and drainage metal for anchors
 5. Install anchors, stopping grout at least 1.0m back from the poles.
 6. Carry out testing on specified anchors (minimum 7 days to be allowed for grout to set).
 7. Place water and lock off anchors at 10% working load.
 8. Grout 100Ø steel tube.

SECTION 1
SCALE 1:50



SITE 4 – FRONT ELEVATION
SCALE 1:50

- NOTES (cont):
7. No soil to be stockpiled on site during periods of wet weather
 8. No soil to be stockpiled overnight on slopes steeper than 2H:1V
 9. Pile embedment to be confirmed on site by the Engineer
 10. The termination of the retaining structures to be agreed with Engineer on site prior to construction



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	<p>DATE: 15/4/2013</p>
<p>NCC Plan No. 19-0076</p>	

DRAWING STATUS: TENDER ISSUE

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REVISION DESCRIPTION	BY	DATE
1 Consultation Issue	MPD	Nov. 12

- NOTES :
1. All dimensions are in millimetres unless noted otherwise
 2. Contractor to set out wall as per coordinates shown on sheet 10, Engineer and Client to verify wall location prior to commencement of augering of pole holes.
 3. All cut faces of poles and lagging shall be coated with two layers of Ensele preservative paint or Engineer-approved similar.
 4. Contractor is fully responsible for the location of all services prior to commencement of works.
 5. Contractor to provide As-Built Drawings and PS3 on completion of works.
 6. All works are to be inspected and approved by the Engineer
- REFERENCE :

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CLIENT, PROJECT	NELSON CITY COUNCIL CABLE BAY ROAD REMEDIATION	
TITLE	RETAINING WALL DESIGN – SITE 4 Section and Elevation	
SCALES (AT A1 SIZE)	1:50	DWG. No. 870982.1004-20
REV.	A	

Table 1: Timber Pole Specifications

Min. pole diameter	250SED
Min. pole spacing	1.2m c/c
Minimum Embedment into HW rock	2.0m
Max. pole length	6.0m
Depth to working platform below top of poles	1.8m
Assumed depth to ground water	3.3m

Pole length to be determined by minimum embedment into HW rock or max pole length i.e Poles can be cut if minimum embedment into rock is achieved.

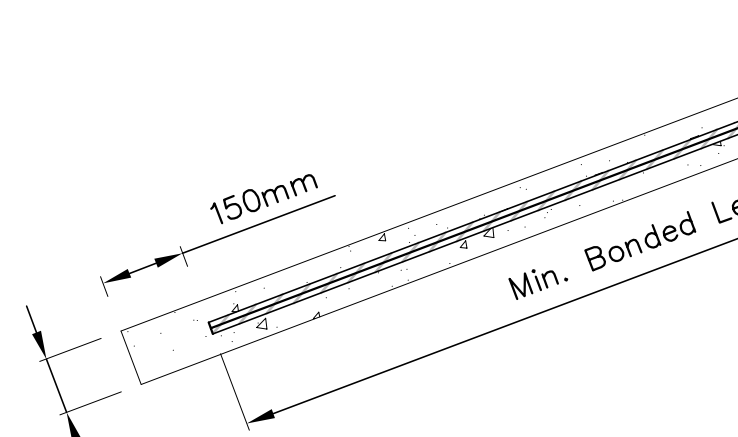
Table 2: Anchor Specifications

Depth of Anchor below top of pole	1.3m
Min. bar diameter	Galvanised RB25
Min. free Length to be the greater of	a) 4.0m or b) 0.5m into HW rock
Min. bonded Length	4.5m
Inclination	15°
Min. hole Diameter	100mm
Static working load	80kN
Seismic load	155kN

Anchor free length to be double wrapped in Denso Tape and sleeved in 50ø ID uPVC sleeve. Refer (C/40)

Anchor Bonded Section, Refer (B/40)

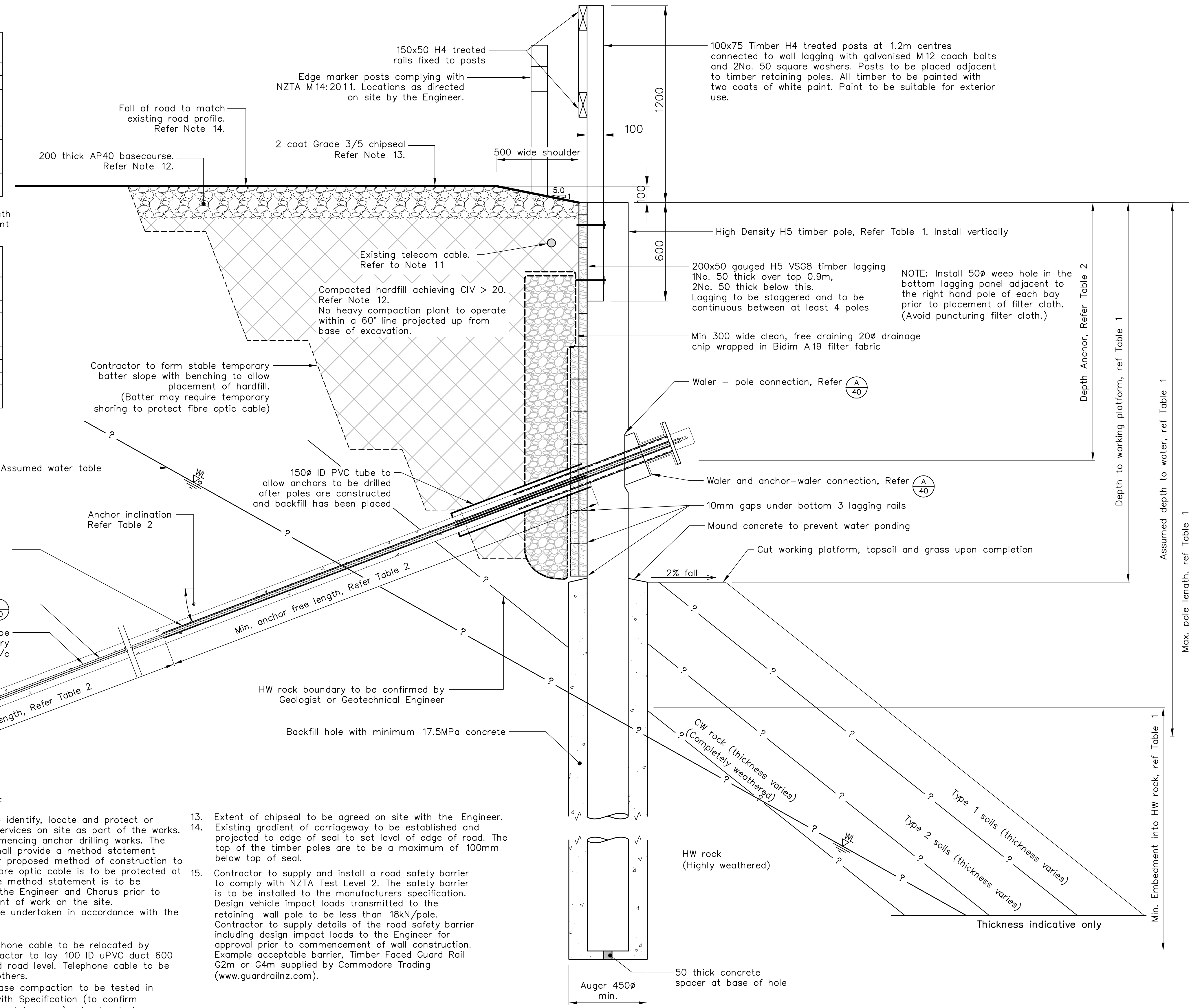
Anchor bar, Refer Table 2. Bar to be centralised in hole with proprietary centralisers at 1.5m c/c



NOTES (continued):

- Contractor to identify, locate and protect or relocate all services on site as part of the works.
- Prior to commencing anchor drilling works. The Contractor shall provide a method statement detailing their proposed method of construction to ensure the fibre optic cable is to be protected at all times. The method statement is to be approved by the Engineer and Chorus prior to commencement of work on the site.
- All work to be undertaken in accordance with the specification.
- N/A
- Existing Telephone cable to be relocated by others, Contractor to lay 100 ID uPVC duct 600 below finished road level. Telephone cable to be installed by others.
- Fill and subbase compaction to be tested in accordance with Specification (to confirm thickness of metal course) prior to placing overlying basecourse and chipseal

- Extent of chipseal to be agreed on site with the Engineer.
- Existing gradient of carriageway to be established and projected to edge of seal to set level of edge of road. The top of the timber poles are to be a maximum of 100mm below top of seal.
- Contractor to supply and install a road safety barrier to comply with NZTA Test Level 2. The safety barrier is to be installed to the manufacturers specification. Design vehicle impact loads transmitted to the retaining wall pole to be less than 18kN/pole. Contractor to supply details of the road safety barrier including design impact loads to the Engineer for approval prior to commencement of wall construction. Example acceptable barrier, Timber Faced Guard Rail G2m or G4m supplied by Commodore Trading (www.guardrailnz.com).



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1 Consultation Issue	MPD	Nov. 12

- NOTES :**
- All dimensions are in millimetres unless noted otherwise.
 - Place Malthold paper between all steel to timber interface surfaces.
 - All cuts and holes in timber to be treated with 'Ensale' or similar approved.
 - Contractor to set out wall and confirm setout with Engineer and Client before proceeding with construction.
 - HW rock to be confirmed on site by suitably experienced Geotechnical Engineer or Engineering Geologist.
 - Type 1 soils have scla penetrometer blow counts < 2/50mm. Type 2 soils have scla penetrometer blows counts > 2/50mm.
- REFERENCE :**

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DRAWING STATUS: TENDER ISSUE

CLIENT, PROJECT	NELSON CITY COUNCIL CABLE BAY ROAD REMEDIATION	
TITLE	RETAINING WALL DESIGN – SITE 4 Typical Anchored Timber Pole Wall Detail	
SCALES (AT A1 SIZE)	DWG. No.	REV.
N.T.S	870982.1004-30	A

Nelson City Council
te kaunihera o whakatū

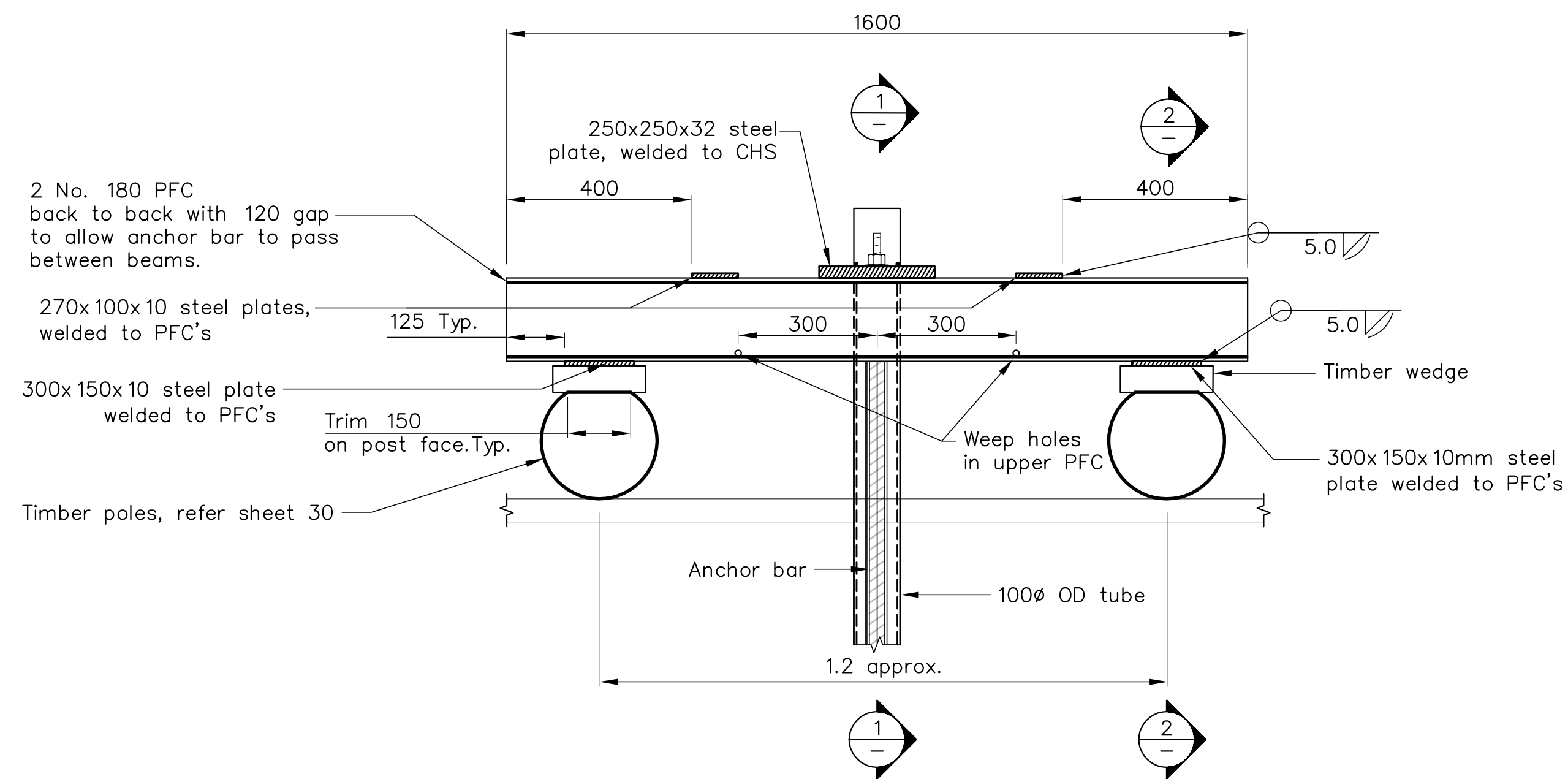
NETWORK SERVICES DEPARTMENT

APPROVED

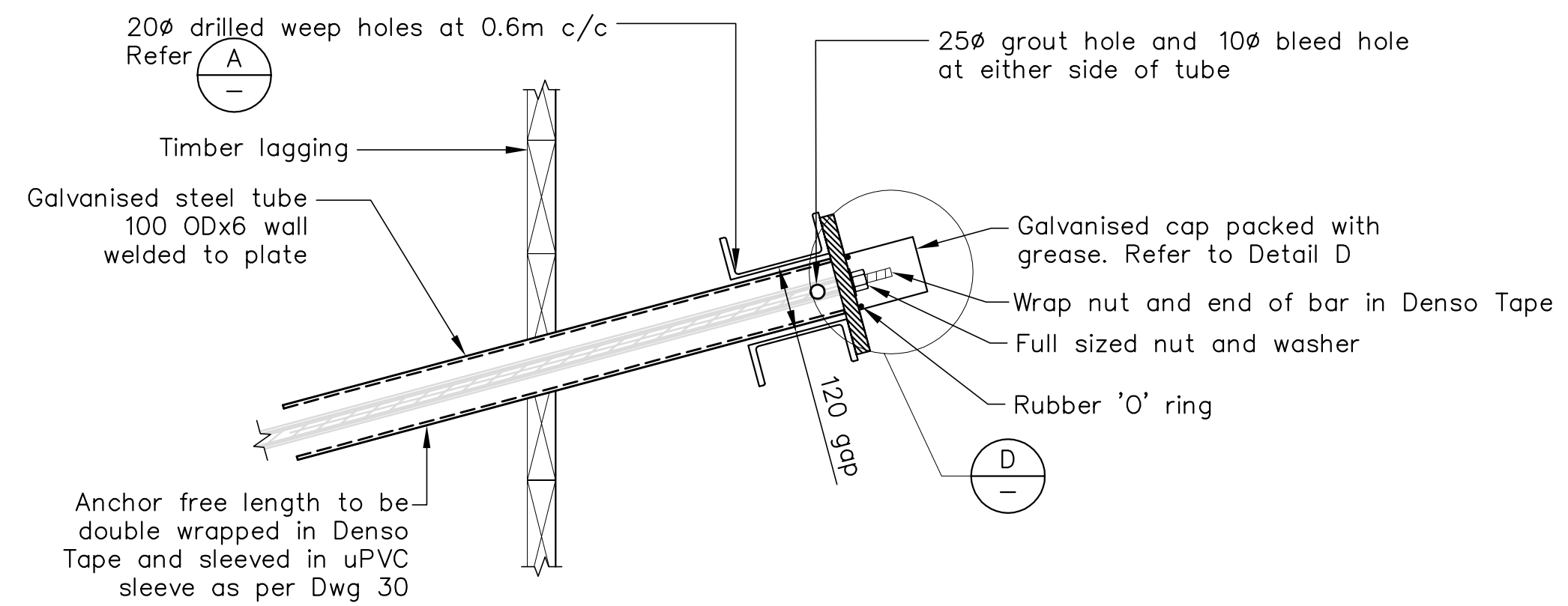
EXECUTIVE MANAGER
NETWORK SERVICES

DATE: 15/4/2013

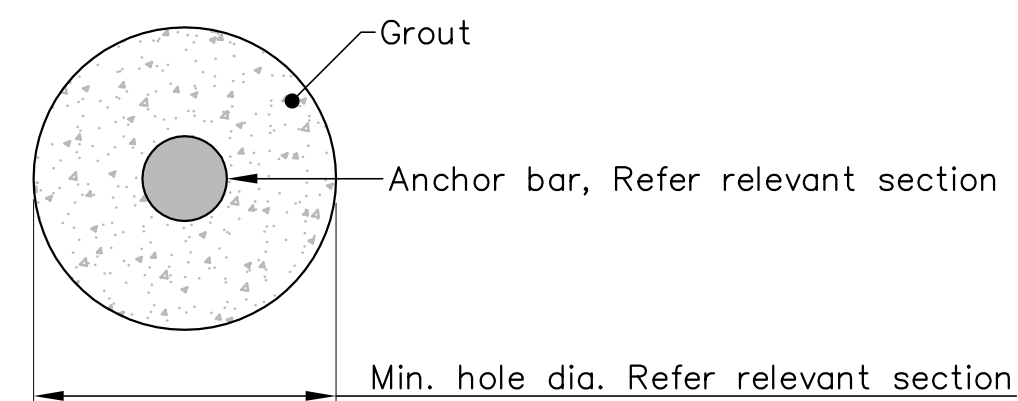
NCC Plan No. 19-0076



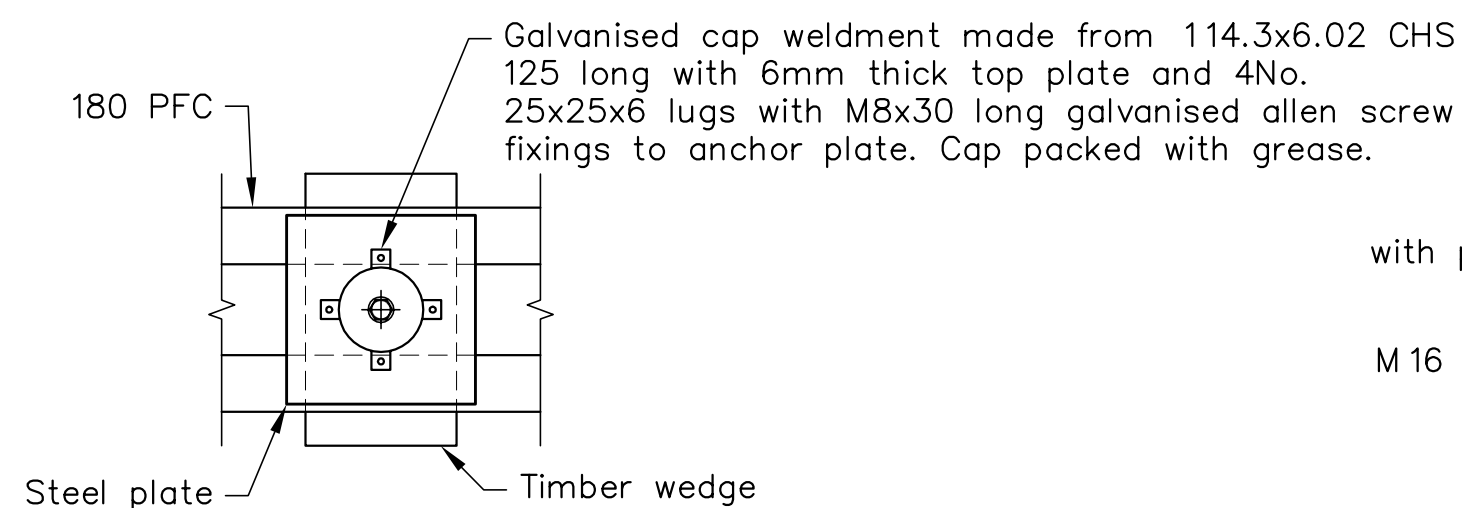
DETAIL **A** PLAN - TYPICAL BACK-TO-BACK PFC WALER
A1 SCALE 1:10



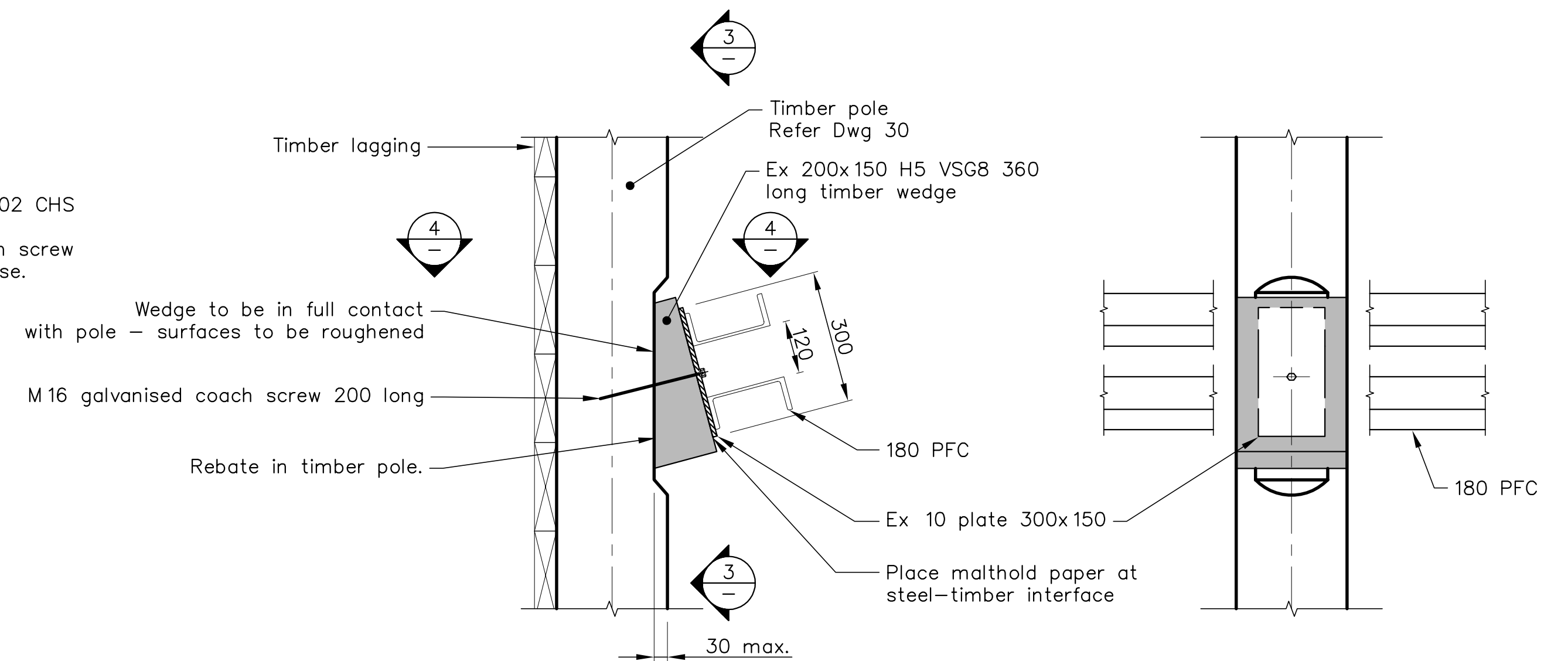
SECTION **1** WALER TO ANCHOR CONNECTION
A1 SCALE 1:10



DETAIL **B** ANCHOR BONDED LENGTH
SCALE NTS

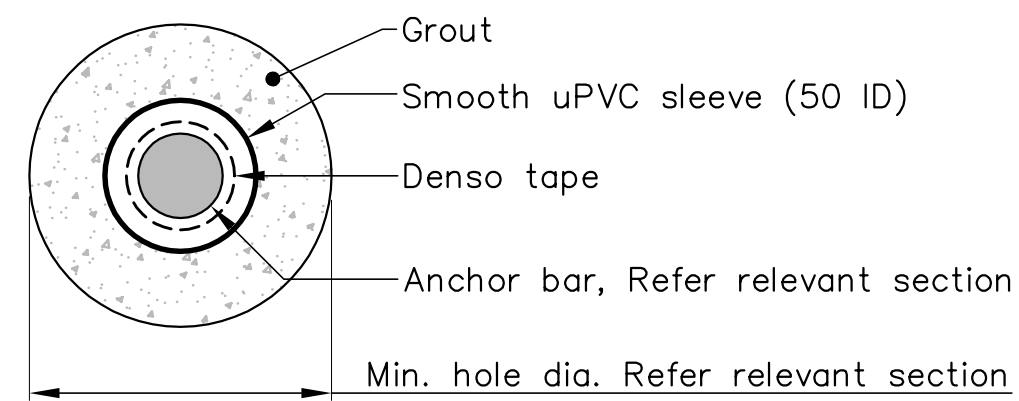


DETAIL **D** STEEL CAP
A1 SCALE 1:10

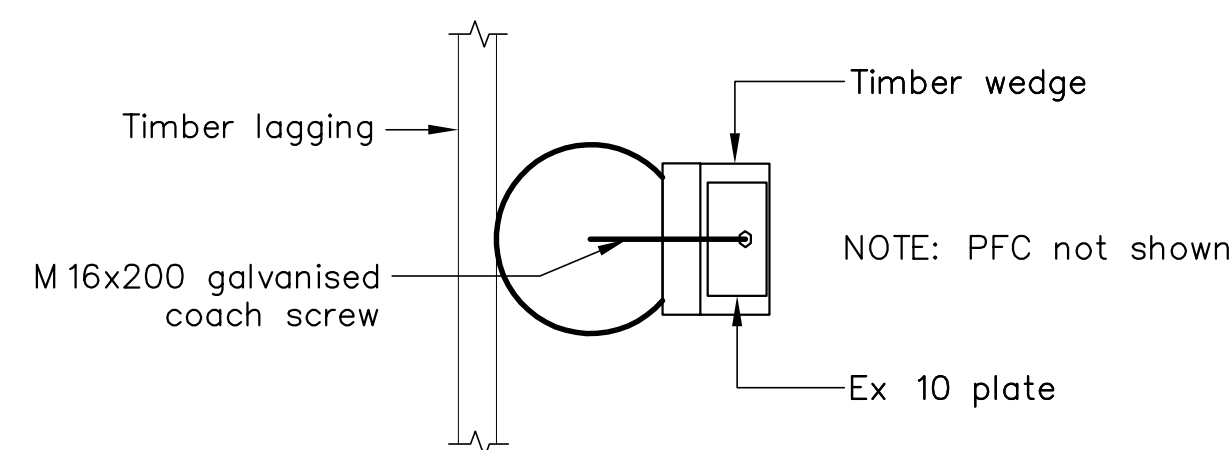


SECTION **2** WALER TO POLE CONNECTION
A1 SCALE 1:10

SECTION **3**
A1 SCALE 1:10



DETAIL **C** ANCHOR FREE LENGTH
SCALE NTS



SECTION **4**
A1 SCALE 1:10

Notes (continued)

- All cut or drilled surfaces in timber to be protected by applying a liberal brush application of 'ensele' or equivalent.
- All steelwork shall be grade 300 and hot dip galvanised to HDG600 to AS/NZS4680 100 micron thickness after welding.
- Grout in steel tube to be cementitious grout complying with BS808 1:1989. The grout shall have a 28 day strength of 4N/mm² and a water cement ratio of between 0.35 and 0.45.
- All cuts, scarfs and holes in treated timber to be coated with ensele preservative prior to assembly.

 Nelson City Council te kaunihera o whakatū NETWORK SERVICES DEPARTMENT	APPROVED EXECUTIVE MANAGER NETWORK SERVICES
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CLIENT, PROJECT	NELSON CITY COUNCIL CABLE BAY ROAD REMEDIATION	
TITLE	RETAINING WALL DESIGN - SITE 4 Anchor and Waler Details	
SCALES (AT A1 SIZE)	DWG. No.	REV.
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REVISION DESCRIPTION	BY	DATE
1 Consultation Issue	MPD	Nov. 12

NOTES :	1. All dimensions are in millimetres unless noted otherwise. 2. All work to be undertaken in accordance with the specification. 3. All welds shall be GP (General Purpose) fillet welds using E4 1XX electrodes. All welds shall comply with NZS4701. 4. All bolts shall be grade 8.8/5 in accordance with AS 1252. 5. All structural steelwork to comply with NZS3404. 6. All bolts, nuts and washers shall be hot dip galvanised. Washers shall be used at all bolted connections.
REFERENCE :	

