



COMMERCE COMMISSION

**STANDARD TERMS DETERMINATION FOR TELECOM'S
UNBUNDLED COPPER LOCAL LOOP NETWORK
CO-LOCATION SERVICE**

**SCHEDULE 4
CO-LOCATION OPERATIONS MANUAL
PUBLIC VERSION**

7 November 2007

Updated to incorporate Commerce Commission clarifications up to 23 December 2009

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PART 1 - DOCUMENT INFORMATION

1 Introduction

1.1	Purpose	1.1.1	This Operations Manual (Manual) is part of the Co-location Terms and sets out the operational procedures for supply of the Co-location Service.
1.2	Relationship with the Co-location Terms	1.2.1	This Manual should be read in conjunction with the other documents which make up the Co-location Terms, in particular the Co-location General Terms and the Access Terms.
1.3	Change mechanism and distribution	1.3.1	This Manual may be changed in accordance with the change mechanism set out in section 10 of the Co-location General Terms.
		1.3.2	Telecom will make the current version of this Manual available on a Telecom website accessible by the Access Seeker.
		1.3.3	Telecom will review this Manual every second year (with the first review commencing on the second anniversary of the Determination Date (or earlier if requested by the Access Seeker and an earlier review is agreed by Telecom). The same change mechanism (set out in section 10 of the Co-location General Terms) will apply to any changes proposed by Telecom as a result of any review.
1.4	Definitions	1.4.1	References to clauses or sections are references to clauses and sections in this Manual unless expressly provided otherwise. The Glossary (Appendix A) sets out definitions for terms contained in this Manual that are not defined in the Co-location General Terms. Otherwise, the definitions set out in the Co-location General Terms apply.

2 People and contact details

2.1	General	2.1.1	Immediately following the Access Date, the Access Seeker and Telecom must provide each other with the people and contact details set out in clause 2.2. Any change to the people and contact details must be advised in writing to the other party's principal point of contact. All people and contact details will remain valid until a party has advised the other in writing of a change (and provided an updated list of people and contact details). In addition to the people and contact details provided, where Telecom details are specified in the body of this Manual, the Access Seeker must use those details.
		2.1.2	If for any reason a party is prevented from giving any Notice pursuant to the Co-location Terms to the relevant person or contact advised by the other party, the same Notice may be given to the other party's principal point of contact. If for any reason the other party's principal point of contact is unavailable or his or her identity and contact details have not been advised, the same Notice may be given by serving it either:
		(a)	at the other party's contact address for giving Notice under the Co-location Terms; or

- (b) personally (if the other party is a natural person); or
- (c) at the other party's registered office (if the other party is incorporated).

2.2 People and contact details

Contact and detail required	Purpose
<i>Both parties must provide</i> Contact address for giving Notice under the Co-location Terms. (This must include a street address and a fax number.)	This is the street address and fax number that Notices under the Co-location Terms can be given by the other party.
<i>Both parties must provide</i> Principal point of contact. (This must include the principal point of contact's email address, mobile and work telephone numbers.)	This is the person responsible for the overall relationship between the parties with respect to the Co-location Service. For Telecom this will usually be the account manager for the relevant Access Seeker.
<i>Telecom only provides</i> Service Delivery Manager. (This must include the Service Delivery Manager's email address, mobile and work telephone numbers.)	This is the person responsible for service delivery of the Co-location Service to the Access Seeker.
<i>Telecom must provide</i> Provisioning manager. (This must include the provisioning manager's email address, mobile and work telephone numbers.)	This is the person responsible for the provisioning of the Co-location Service to the Access Seeker.
<i>Both parties must provide</i> Co-location project manager. (This must include the co-location project manager's email address, mobile and work telephone numbers.)	This is the person who will liaise with the other party in relation to the Telecom Build and the Access Seeker Build. Each party may nominate a separate co-location project manager for each exchange.
<i>Access Seeker must provide</i> Email address for Telecom to send Cabinetisation Forecasts.	This is the email address to which Telecom will send the Cabinetisation Forecasts described in section 24 below.
<i>Access Seeker must provide</i> Names and email addresses of one or two people to become OO&T user administrators.	These people will manage the creating and disabling of Access Seeker staff accounts to access the OO&T website.
<i>Telecom must provide</i> Email address for the Access Seeker to send Co-location Forecasts.	This is the email address to which the Access Seeker will send the Co-location Forecasts described in section 7 below.
<i>Access Seeker must provide</i> People who are authorised to download eBill files.	These are the people who will be set up with access to Telecom's secure HTTP site from which the Access Seeker's eBills can be viewed and downloaded.

<p><i>Access Seeker must provide</i> People who are authorised to download the Co-location Price List File.</p>	<p>These are the people who will be set up with access to Telecom's secure HTTP site from which the Co-location Price List File can be viewed and downloaded.</p>
<p><i>Telecom must provide</i> OO&T business continuity address.</p>	<p>This is the email address to which the Access Seeker will send business continuity forms under 11.8.6.</p>
<p><i>Telecom must provide</i> Billing team email address.</p>	<p>This is the email address to which the Access Seeker will send billing queries under clause 27.3.1.</p>

3 Technical manuals and user guides

3.1 Status of external documents

- 3.1.1 This Manual refers to various technical manuals (including published New Zealand and international standards) and user guides that contain technical and procedural detail. Such reference is necessary for both the Access Seeker and Telecom so that:
- (a) uniform standards of best practice are set;
 - (b) the performance of the Local Loop Network is maintained;
 - (c) the health and safety of the Access Seeker's and Telecom's employees, contractors and other agents can be protected;
 - (d) systems are in place for the management of outages, faults and any work the Access Seeker or Telecom need to undertake; and
 - (e) the Access Seeker's and Telecom's employees, contractors and other agents have access to uniform technical instructions.
- 3.1.2 To the extent that this Manual creates any obligation to comply with a technical manual or user guide, the Access Seeker and Telecom must:
- (a) apply the technical manual or user guide in good faith;
 - (b) interpret the technical manual or user guide consistently with the Co-location Terms; and
 - (c) comply with the technical and/or procedural detail the technical manual or user guide contains.
- 3.1.3 Electronic copies of all the relevant technical manuals and user guides will be made available to the Access Seeker as soon as practicable after the Access Date or following an earlier request from the Access Seeker.

4 Good faith and Dispute resolution

4.1 General

- 4.1.1 The parties will deal with each other in good faith in relation to this Manual and act co-operatively to facilitate the procedures required

for supply of the Co-Location Service.

- 4.1.2 Any dispute, question or difference that arises between the parties must be dealt with in accordance with the Escalation Protocol in Appendix B. The parties must use all reasonable endeavours to resolve the issue in this way before giving a Dispute Notice under section 39 of the Co-location General Terms.
- 4.1.3 In some parts this Manual provides that any Dispute in relation to a particular issue will be of a technical, operational or implementation nature, which requires significant investigation of factual matters, and therefore, in the event of a Deadlock, must be resolved by an expert determination. However, nothing in this Manual will prevent the Access Seeker or Telecom from seeking any remedies available under the Act.

5 Prerequisites

5.1	Overview	5.1.1	In addition to the commercial prerequisites set out in section 7 of the Co-location General Terms, the Access Seeker must satisfy the following operational prerequisites in relation to the Co-location Service. The Access Seeker may, at its option, enter into a non-disclosure agreement with Telecom covering discussions prior to placing an Order for the Co-location Service (but neither Telecom nor the Access Seeker will be under any obligation to do so).
5.2	Operational prerequisites	5.2.1	Prior to placing the first Forecast with Telecom, Telecom must have granted to the Access Seeker, and the Access Seeker has verified it has access to, the Telecom operational support systems required for the provision of the Co-location Service, namely the secure Co-location web portal (this is required in order to download soft copies of the Forecasting Spreadsheet).
		5.2.2	Prior to either making an Order for a site audit or making a Preliminary Order, the following prerequisites must be met:
		(a)	Telecom has granted to the Access Seeker, and the Access Seeker has verified it has access to, the following Telecom operational support systems required for the provision of the Co-location Service:
		(i)	the Co-location inventory (which holds detailed information about each Exchange);
		(ii)	Online ordering and tracking (OO&T); and
		(iii)	Telecom's online fault management system (OFM)
		(b)	The Access Seeker must have submitted a Co-location Forecast for the relevant period.
		5.2.3	Prior to making a Firm Order, the Access Seeker must have accepted Telecom's Quote.
		5.2.4	Prior to commencing the Access Seeker Build in an exchange, the following prerequisites must be met:
		(a)	the Access Seeker has accepted the Telecom Build;
		(b)	Telecom has granted to the Access Seeker, and the Access Seeker

has verified it has access to, Telecom's Permit to Work web portal;

- (c) the Access Seeker has an approved Permit to Work in respect of the Access Seeker Build; and
- (d) the Access Seeker has met the accreditation and security requirements for each person who will require unescorted access to the exchange to complete the Access Seeker Build.

5.2.5 Before the Operational Date and on an ongoing basis, the Access Seeker must have met the accreditation and security requirements for each person who will require unescorted access to the exchange to operate and maintain the Access Seeker Equipment on an ongoing basis.

6 Overview of the Co-location Service

6.1 Overview

6.1.1 This section outlines the Co-location Service and the procedures for its supply. A diagram illustrating the Co-location Service is attached as Appendix C. More detailed information is set out in subsequent sections of this Manual.

6.2 The Co-location Service

6.2.1 The Co-location Service is described in the Co-location Service Description. The basic elements of the Co-location Service are:

- (a) The supply of one or more Footprints in an exchange within which the Access Seeker can install the Access Seeker Equipment for the purpose of providing access to and interconnection with the UCLL Service. Note:
 - (i) "Access Seeker Equipment" includes the equipment of any person other than the Access Seeker if that equipment is being used to support the provision of backhaul for the Access Seeker; and
 - (ii) the Co-location Service includes access to, and the use of space in, on, or around the exchange for the purpose of installing and maintaining the Access Seeker Equipment. The Access Seeker's right to access some parts of the Access Seeker Equipment is limited to escorted access for the purpose of inspection.
- (b) The supply of a Footprint on the exchange for the installation of ancillary backhaul equipment such as an external satellite dish. This element of the Co-location Service is optional and may not be available at every exchange.
- (c) Connection of the Access Seeker Equipment in the exchange to a Handover Distribution Point (**HDP**) on Telecom's MDF using an Intra-exchange Tie Cable.
- (d) Connection of the Access Seeker Equipment in the exchange using a Co-location Backhaul Tie Cable to either a network fibre cable for backhaul, or (if installed) ancillary backhaul equipment within a Footprint on the exchange.
- (e) The Telecom Build, which may be necessary before the Access Seeker Equipment can be installed.

- (f) The supply of Building Services so that the Access Seeker Equipment can be operated.
 - (g) Controlled access for accredited representatives of the Access Seeker to maintain and operate the Access Seeker Equipment.
- 6.2.2 On or before the relevant Operational Date for each Access Seeker Build, the Access Seeker will be responsible for having its tie cables (both Intra-exchange Tie Cables and Co-location Backhaul Tie Cables) correctly terminated at the Access Seeker Equipment within its Footprint.
- 6.2.3 On an ongoing basis after the relevant Operational Date:
- (a) the Access Seeker will be fully responsible for maintaining and fixing faults in the Access Seeker Equipment within its Footprint; and
 - (b) the Access Seeker will be fully responsible for maintaining and fixing faults in the Access Seeker Equipment outside its Footprint, but must pay for a Telecom representative to undertake this work on its behalf.
- 6.2.4 The Co-location Service may be supplied in either of two ways:
- (a) co-mingled Footprints: the Access Seeker's Footprints are inter-mixed directly with those of Other Service Providers within a shared row and may also be inter-mixed with Telecom racks or cabinets; and
 - (b) co-mingled rows: the Access Seeker is allocated an entire row of Footprints.
- 6.2.5 How the Co-location Service is supplied depends on space restrictions within the relevant exchange.

6.3 Procedure for supply of the Co-location Service

- 6.3.1 The procedure for supply of the Co-location Service can be summarised in the following steps:

<i>Access Seeker action</i>	<i>Telecom action</i>
The Access Seeker expresses interest in an exchange by submitting a Co-location Forecast. This could be either for space within a new exchange or for additional space within an existing unbundled exchange.	
	Telecom prioritises the Telecom Build within different exchanges based on Co-location Forecasts and the prioritisation rules.
The Access Seeker may request an Initial Site Audit and/or a Full Site Audit.	
	If requested by the Access Seeker, Telecom will undertake and make available to the Access Seeker a site audit. An Initial Site Audit gives an indication of how much and what kind of space is available. A Full Site Audit allows the Access Seeker to undertake detailed design work before making a Preliminary Order.

<p>The Access Seeker submits a Preliminary Order for its preferred amount of space and configuration.</p>	
	<p>Telecom provides the Access Seeker with a Quote, which details:</p> <ul style="list-style-type: none"> (a) what space can be supplied; (b) the configuration of that space; (c) the cost of the Telecom Build; and (d) a timeframe for the Telecom Build.
<p>The Access Seeker makes a Firm Order by accepting the Quote.</p>	
	<p>The Telecom Build is carried out, commencing on a date subject to prioritisation.</p>
<p>The Access Seeker accepts the Telecom Build. From this point the Access Seeker must pay the ongoing price for the Co-location Service.</p>	
	<p>Telecom hands over the Footprint immediately following receipt of payment and allows access to accredited representatives of the Access Seeker.</p>
<p>The Access Seeker Build is undertaken and the Access Seeker Equipment installed. A Certificate of Compliance is issued to Telecom on completion. The Certificate of Compliance confirms that the Access Seeker Equipment has been installed correctly and complies with all of the Access Seeker's obligations under the Co-location Terms.</p>	

PART 2 - FORECASTING AND PRIORITISATION

7 Forecasting

<p>7.1</p>	<p>Access Seeker Forecasting</p>	<p>7.1.1 The Access Seeker is required to provide Telecom with aggregated, non-binding quarterly forecasts (Co-location Forecasts) for the next 24 months (and on a rolling two-year forecasting basis which is updated quarterly). Each Co-location Forecast must include:</p> <ul style="list-style-type: none"> (a) a committed forecast, by month, for the first 12 months; and (b) an indicative forecast, by quarter, for quarters five through eight. <p>7.1.2 Each Co-location Forecast is required to forecast the Access Seeker's quarterly demand for the first 12 months of each rolling two-year period, then quarterly demand for the remaining four</p>
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quarters, for:

- (a) Footprints within new exchanges that have not been unbundled;
- (b) Footprints within existing unbundled exchanges;
- (c) changes to Footprints within exchanges where the Access Seeker already has a presence; and
- (d) site audits.

7.1.3 A Microsoft Excel spreadsheet template on which Co-location Forecasts must be made will be provided by Telecom (**the Forecasting Spreadsheet**). An example of the template is attached as Appendix D. Each time the Access Seeker submits a Co-location Forecast, it must email to Telecom a copy of the Forecasting Spreadsheet with the relevant worksheets completed. The Access Seeker must complete the Co-location Forecast in full including providing all of the information indicated as mandatory.

7.1.4 Each forecast must be submitted by email to the Co-location Forecast email address on or before the last Working Day of the month before the period to which it relates. Telecom will acknowledge it has received each Co-location Forecast by reply email to the address from which it was sent.

7.1.5 Each quarterly forecast submitted will commence on the first Working Day of February, May, August and November of each rolling two year period comprising a Co-location Forecast.

7.1.6 As part of every Co-location Forecast, the Access Seeker must provide a single list (see the example template in Appendix D) which ranks in order of separate priority, every exchange for which it has:

- (a) forecast a Preliminary Order during the first three months of the forecast period; and/or
- (b) any outstanding Firm Order from a preceding three months in respect of which the Telecom Build has not commenced or become reasonably committed to.

7.1.7 The Access Seeker's Co-location Forecast (including its priority list) is Confidential Information for the purposes of section 34 of the Co-location General Terms.

7.1.8 Where the Access Seeker fails to submit any of the required Co-location Forecasts, Telecom will use all reasonable endeavours to process any relevant Orders but there will be no requirement for Telecom to meet any service levels under the Co-location Service Level Terms in respect of the services or transactions to which the missing forecasts should have related.

7.2 Feedback

7.2.1 Telecom will review each Co-location Forecast and determine whether any bottlenecks or foreseeable problems exist that would affect the timing of Telecom's ability to deliver the Co-location Service.

- 7.2.2 The Access Seeker must comply with any reasonable request made by Telecom to provide additional information relating to a Co-location Forecast.
- 7.2.3 If bottlenecks or foreseeable problems exist, Telecom will give feedback to the Access Seeker and may propose an amended Co-location Forecast. Following any feedback, the Access Seeker and Telecom will work together to improve the accuracy of the Co-location Forecast, however, the Access Seeker has no obligation to re-submit a Co-location Forecast as a consequence of receiving feedback.
- 7.2.4 If the Access Seeker does re-submit a Co-location Forecast in response to feedback, that Co-location Forecast will be accepted by Telecom and used for any subsequent prioritisation during the period to which it relates (i.e. a re-submitted Co-location Forecast under this clause will not be regarded as being either out of time or a change that has no effect until the following period to which it relates).
- 7.2.5 The Access Seeker must notify Telecom's provisioning manager and principal point of contact of any material change to a Co-location Forecast as soon as the Access Seeker becomes aware of that change. Any change to the Access Seeker's order of priority for exchanges may not have an effect until the following month or quarter depending on the period to which the material change relates (i.e. its initial unchanged Co-location Forecast will continue to be used for any prioritisation during the relevant period in accordance with section 8).

7.3 Telecom Forecasting

- 7.3.1 On each anniversary of the Determination Date, Telecom must provide Access Seekers with a 24 month forecast of its space requirements for Core Network equipment in Exchanges where the Co-location Service is provided.

8 Prioritisation

8.1 Overview

- 8.1.1 This section applies where resource constraints exist. Where no resource constraints exist supply of the Co-location Service is essentially "first come, first served" (refer to section 9 below).
- 8.1.2 If there are long delays at a particular exchange or within a particular region for Telecom Build, Telecom will give feedback to and consult with Access Seekers and Firm Orders and priorities may be amended by agreement.

8.2 Aggregate priority list

- 8.2.1 On the tenth Working Day of each month Telecom will determine an aggregate priority list from all of the Co-location Forecasts submitted to it for the relevant quarter by:
- (a) removing any priority listed by an Access Seeker in respect of which Telecom's Build has been completed, commenced or reasonably committed to; and
 - (b) applying the methodology in Appendix E to the remaining listed priorities.
- 8.2.2 The result is a list of exchanges, ordered by aggregate priority, and

valid until the tenth Working Day of the following month.

8.2.3 A consequence of this process is that any un-forecasted Firm Order made during a quarter (and therefore not included in the Access Seeker's priority list) will not have been taken into account in determining the aggregated list and may receive a lower priority.

8.3 Prioritisation of Telecom Build in respect of Firm Orders

8.3.1 Telecom will need to prioritise when it receives Firm Orders in respect of more exchanges than it has available resource to undertake the Telecom Build in at once. (Where Firm Orders are received at approximately the same time in respect of the same exchange, it is likely for reasons of efficiency that only one Telecom Build will be undertaken in respect of both Orders.) Telecom notes that resource constraints requiring prioritisation are unlikely following the initial period of demand dealt with under the Implementation Plan.

8.3.2 Telecom's prioritisation of Telecom Build in respect of Firm Orders will be conducted as follows:

- (a) On the tenth Working Day of the month Telecom will use the aggregate priority list determined in accordance with clauses 8.2.1 to 8.2.3 to establish the relative priorities of every Firm Order that has been received as at the last Working Day of the preceding month but in respect of which Telecom's Build has not been completed, commenced or reasonably committed to.
- (b) Telecom will allocate resource in a serial fashion to undertake the Telecom Build for Firm Orders according to the exchange with the highest priority on its current aggregate priority list. Telecom will choose at random between exchanges that are determined to have identical priorities.
- (c) Once the Telecom Build in respect of an exchange becomes reasonably committed to (in terms of planning and preparation), that exchange will not be re-prioritised or lose its place in the 'queue'.
- (d) Any Firm Orders that have not been commenced or reasonably committed to before the conclusion of any month will be re-prioritised in the subsequent months.

8.3.3 The priority given to a Firm Order under this section will only apply to the extent that it was forecast. For example, if the Access Seeker forecasts an Order for 5 Footprints in an exchange during the coming quarter but makes a Firm Order for 20, any prioritisation of Telecom Build for the relevant exchange would only apply in respect of 5, not 20 Footprints.

8.4 Prioritisation of site audits

8.4.1 Where resource constraints exist, Orders for site audits will be prioritised in the same way as Telecom Build above.

9 First come, first served

9.1 Overview

9.1.1 This section sets out the rules that will apply where no resource constraints exist.

9.2	Space on the MDF	9.2.1	Space on the MDF to terminate Intra-exchange Tie Cables will be allocated on a "first come, first served" basis, except that the maximum Order that can be made at any one time is sufficient space for 1,000 copper tie cable pairs per Footprint (unless the Access Seeker can provide evidence of a need for additional pairs, in which case the maximum will not apply).
9.3	Telecom Build	9.3.1	Orders requiring Telecom Build will be met by Telecom on a "first come, first served" basis.
9.4	Site audits	9.4.1	Orders for site audits will be met by Telecom on a "first come, first served" basis.
9.5	Available Footprints	9.5.1	Existing Footprints will be allocated on a "first come, first served" basis subject to Telecom having first priority in respect of equipment used to provide Core Network.

10 Disputes

10.1	Disputes	10.1.1	In the event that the Access Seeker believes any prioritisation has been incorrect, it may follow the Dispute resolution procedure under section 39 of the Co-location General Terms. Any Dispute in relation to prioritisation is of a technical, operational or implementation nature and therefore, in the event of a Deadlock, must be resolved by expert determination.
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PART 3 - PROVISIONING

11 OO&T

11.1	Overview	11.1.1	Subject to the provisions below relating to business continuity, all Orders for the Co-location Service must be placed using OO&T. Any Orders that the Access Seeker attempts to place by other means (for example, by email or by fax) will be invalid and may be disregarded by Telecom. If an Access Seeker does place an invalid Order Telecom will use all reasonable endeavours to notify the Access Seeker if such Orders have been received.
		11.1.2	OO&T allows the Access Seeker to:
		(a)	submit and track the status of Orders; and
		(b)	update existing Orders (up to the time they are accepted).
11.2	Terms of Use	11.2.1	OO&T is Telecom software the use of which is subject to the Co-location General Terms and this Manual.
11.3	B2B	11.3.1	The Access Seeker can choose to directly integrate its systems with OO&T via the OO&T Business to Business Web Services Interface (B2B). If the Access Seeker is interested in B2B it can contact its account manager for documentation describing the development required to interact with B2B. A trial agreement must be signed before access to a test site, after which an Integration Access Agreement is required.
11.4	Training and support	11.4.1	Telecom will provide reasonable initial set up training on OO&T.
		11.4.2	"Reasonable initial set up training" in this context consists of a workshop held at a Telecom location. The workshop will address:
		(a)	overview for forms of forecasting;
		(b)	overview for forms of ordering;
		(c)	basic details of OO&T (including a demonstration of its functionality);
		(d)	overview of billing and accounts; and
		(e)	Q&A.
		11.4.3	The Access Seeker will ensure that a reasonable number of staff (up to a maximum number of 10) attend any training provided.
		11.4.4	Any additional training required by the Access Seeker beyond reasonable initial set up training will be charged for by Telecom in accordance with the Co-location Price List.
11.5	Access to OO&T	11.5.1	OO&T allows the Access Seeker to log on to a secure website for placing and monitoring Orders with Telecom.

- 11.5.2 The Access Seeker will provide Telecom with the names of one or two people to become OO&T user administrators. These people will then manage the creating and disabling of Access Seeker staff accounts to access OO&T.
- 11.5.3 On request from the Access Seeker, Telecom will reset, disable or alter the user administrator accounts.
- 11.5.4 Subject to clause 11.5.5, Telecom reserves the right to restrict or prohibit access to OO&T if any of the Access Seeker's staff or systems:
- (a) perform malicious or unintentional actions that damage or may potentially damage OO&T;
 - (b) use OO&T in an unauthorised manner or in such a way that causes or may cause material performance issues,

provided that Telecom will restrict or prohibit access to the minimum extent practicable to protect OO&T and any related systems.

- 11.5.5 Telecom must use all reasonable endeavours to provide the Access Seeker with reasonable prior Notice of any restrictions or prohibitions. Where this is not practicable in the circumstances, Telecom will advise the Access Seeker of the restriction or prohibition as soon as practicable after the event.

11.6 Additional functionalities of or enhancements to OO&T

- 11.6.1 Where Telecom creates any additional functionality within OO&T or makes any enhancement of it, Telecom will give Notice to the Access Seeker. The Access Seeker will modify its own provisioning systems and/or operational procedures to the extent required. Telecom must consult with the Access Seekers before notifying the Access Seekers of any additional functionality or enhancements to OO&T which affect the use of OO&T in relation to the Co-location Service.
- 11.6.2 The Access Seeker will utilise the additional functionalities of or enhancements to OO&T as notified by Telecom from the date specified in Telecom's Notice.
- 11.6.3 The Access Seeker is responsible for ensuring that its own systems are configured in accordance with its use of OO&T and comply with the requirements in the Telecom document "Telecom Web Services Interface Software Development Kit" and the Telecom document "OO&T User Guide" (reference ASD-001).

11.7 Costs

- 11.7.1 Telecom will be solely responsible for Telecom's costs of designing and developing OO&T, including any modifications and enhancements.
- 11.7.2 The Access Seeker will be solely responsible for the costs of modifying its systems to interface with OO&T and B2B and for participating in the consultation and implementation process.
- 11.7.3 Telecom will charge a monthly fee for OO&T as set out in the Co-location Price List.

11.8 Terms of use

- 11.8.1 The Access Seeker must only use OO&T for purposes authorised by Telecom.

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- 11.8.2 Telecom will use all reasonable endeavours to ensure that OO&T is available to Access Seekers 24 hours a day, 7 days a week.
 - 11.8.3 Although Telecom intends to take reasonable steps to prevent the introduction of viruses or other destructive features to OO&T, Telecom does not guarantee that it is free of such viruses or other destructive features.
 - 11.8.4 If Telecom advises the Access Seeker OO&T is unavailable the Access Seeker may submit provisioning requests by emailing the relevant form to Telecom (available on the secure Co-location web portal).
 - 11.8.5 All business continuity forms submitted in accordance with this clause should come from a generic mailbox. This mailbox must include the Access Seeker's name in the email subject line as follows: [Co-location Form Name] - [Access Seeker Name] - [Access Seeker reference number].
 - 11.8.6 Once completed, business continuity forms must be sent to the business continuity email address advised by Telecom in accordance with section 2.
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11.9 OO&T Order processing

- 11.9.1 Telecom will use all reasonable endeavours to ensure that all Orders entered into OO&T by Access Seekers outside of Business Hours on any Working Day are processed in the first Business Hour on the next Working Day. For the purpose of determining whether Telecom has met any relevant Service Level Terms for dealing with Orders, any Orders submitted to Telecom outside of Business Hours will be deemed to have been received by Telecom in the first Business Hour of the following Working Day.
 - 11.9.2 When an Order is received, Telecom will advise the Access Seeker, acknowledging receipt of the Order, subject to clause 11.9.1.
 - 11.9.3 For each Order that is submitted, the Access Seeker must complete all of the fields on the relevant form that are marked as mandatory.
 - 11.9.4 An Order will be deemed invalid and may be rejected by Telecom if it is not submitted in accordance with this Manual.
 - 11.9.5 Telecom will perform a validation check of each Order that it receives. The validation check will determine whether the Order complies with the requirements of this Manual.
 - 11.9.6 If an Order is rejected, Telecom will advise the Access Seeker of that rejection and provide the Access Seeker with the reason.
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11.10 Irregularities

- 11.10.1 Telecom will waive immaterial irregularities and process Orders where the intention is unambiguous. Examples of such irregularities include:
 - (a) use of different conjunctions (e.g. "&" instead of "and");
 - (b) improper application or omission of apostrophes;
 - (c) variations in letter case;
 - (d) use of initials instead of first names, or vice versa; and

- (e) names where letters have been accidentally transposed but the meaning is still clear (e.g. Dominoin = Dominion).

12 Site audits

12.1	Overview	<p>12.1.1 The Access Seeker may request Telecom to undertake an Initial Site Audit and/or a Full Site Audit to assess the capacity of any exchange for the Co-location Service.</p> <p>12.1.2 Any request for an Initial Site Audit or Full Site Audit must be made using OO&T. Details on placing Orders using OO&T are set out in the Telecom document "OO&T User Guide" (reference ASD-001).</p> <p>12.1.3 A site audit is only current as at the day it is supplied to the Access Seeker.</p>
12.2	Initial Site Audit	<p>12.2.1 An Initial Site Audit will include the information set out in Appendix F.</p> <p>12.2.2 An Initial Site Audit provides information about the availability of free space within an exchange for Access Seeker Equipment and is intended as a guide ahead of a Full Site Audit or Preliminary Order being placed by the Access Seeker. Most Initial Site Audits will be completed from existing records as a desktop exercise. If these records are incomplete, a visit to the relevant exchange may be required.</p>
12.3	Full Site Audit	<p>12.3.1 A Full Site Audit provides additional detailed information so that specific design work can be undertaken.</p> <p>12.3.2 A Full Site Audit may be Ordered at any time and, in addition to the information set out in Appendix F, will provide:</p> <ul style="list-style-type: none"> (a) scale floor plans of the building, the Telecom Site and the Footprint locations available; (b) information on the capacity of support infrastructure installed and proposed; (c) an estimate of the time taken to provision a Footprint in that exchange; (d) details on cable routes and distances from the Footprints to the MDF; (e) plans and details of manholes and external access points for feeder cables; and (f) the availability of space on the existing HDP. <p>12.3.3 Information on the presence or usage of the site by Other Service Providers being supplied with the Co-location Service will not be included or made available.</p> <p>12.3.4 As part of a Full Site Audit the Access Seeker may request an escorted inspection of the premises with the Telecom representative managing the site audit.</p>
12.4	Transfers	<p>12.4.1 As part of any site audit Telecom may also provide an indication of the number of MPF transfers possible per day based on space contentions. This will only be an indication of what might be</p>

possible, and actual volumes will be confirmed when bulk migration planning of the UCLL Service occurs.

13 Preliminary Order

13.1 Overview	<p>13.1.1 A Preliminary Order is required to enable Telecom to undertake the design work necessary to issue a Quote. Preliminary Orders can be placed for different parts of the Co-location Service, including:</p> <ul style="list-style-type: none"> (a) one or more new Footprints at an exchange where the Access Seeker has no existing co-location presence; (b) one or more additional Footprints at an exchange where the Access Seeker has a co-location presence; (c) the supply of additional services to an existing Footprint at an exchange where the Access Seeker has a co-location presence but requires upgraded services or an altered configuration (for instance an increased power rating); (d) one or more Footprints on an exchange for the installation of ancillary backhaul equipment; and (e) ancillary services such as tie cables.
13.2 Placing Preliminary Orders	<p>13.2.1 A Preliminary Order for the Co-location Service must be made using OO&T. Details on placing Orders using OO&T are set out in the Telecom document "OO&T User Guide" (reference ASD-001).</p> <p>13.2.2 A Preliminary Order must include sufficient detailed information, including:</p> <ul style="list-style-type: none"> (a) identifier/name of the exchange; (b) number of Footprints required (including any Footprints on the exchange for the installation of ancillary backhaul equipment, refer to section 14); (c) number of copper tie cable pairs required for each Footprint - minimum 100 pairs, maximum 1,000 pairs (unless the Access Seeker can provide reasonable evidence of demand beyond 1,000 pairs); (d) whether Telecom or the Access Seeker will supply the necessary tie cables; (e) whether a Co-location Backhaul Tie Cable will need to be installed; (f) all power requirements (i.e. fuse/circuit breaker rating etc); (g) a list of the Access Seeker Equipment that will be installed (including the intended function of the Access Seeker Equipment); (h) preferred hand over date (for the Access Seeker Build to commence); and (i) any other information Telecom needs to know to undertake the detailed design work necessary to issue a Quote. <p>13.2.3 The Access Seeker will comply with any reasonable request made</p>

by Telecom for additional information relating to a Preliminary Order. The Access Seeker and Telecom will work together to resolve any difficulties with a Preliminary Order.

14 Ancillary backhaul equipment

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|-------------|----------------|--|
| 14.1 | General | <p>14.1.1 Different types of ancillary equipment for the provision of backhaul can be accommodated as part of the Co-location Service. Applications to install such ancillary equipment for the support of the Access Seeker Equipment within a Footprint in an exchange will be handled by Telecom as set out below.</p> <p>14.1.2 An application must include plans, specifications and additional information sufficient to allow Telecom to determine the:</p> <ul style="list-style-type: none"> (a) space required for the ancillary equipment; (b) potential impact on all other users and potential users of the exchange; and (c) likely disruption or cost caused by the installation and use of the ancillary equipment. <p>14.1.3 An application must include Telecom's co-siting form (a copy of which is attached as Appendix G).</p> <p>14.1.4 If the proposal can be accommodated without disruption to other users or potential users of the site, sections 16 to 21 will apply. Where practicable, Telecom will process Preliminary Orders in relation to ancillary backhaul equipment in parallel with any related Preliminary Orders made by the Access Seeker.</p> |
|-------------|----------------|--|

15 Assessment of space

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|-------------|---|---|
| 15.1 | Assessment of space restrictions | <p>15.1.1 Telecom will assess the available space at the relevant exchange for co-locating Access Seeker Equipment. Where:</p> <ul style="list-style-type: none"> (a) there is insufficient space to meet current Firm Orders (either by the use of any existing Co-location Service Area or, where feasible, by creating an additional Co-location Service Area), then the space restrictions in that exchange will be assessed as high; (b) there is sufficient space to meet current Firm Orders (either by the use of any existing Co-location Service Area or, where feasible, by creating an additional Co-location Service Area), but insufficient space to meet current Co-location Forecasts, then the space restrictions in that exchange will be assessed as moderate; and (c) there is sufficient space to meet current Firm Orders and Co-location Forecasts then the space restrictions in that exchange will be assessed as low. <p>15.1.2 Some exchanges include space allocated for uses other than locating telecommunications equipment (for instance office space). For the avoidance of doubt, Telecom will have no obligation to change the use of such spaces or take them into account when making any assessment of space restrictions.</p> |
|-------------|---|---|

15.2	Allocation of Footprints	<p>15.2.1 The configuration and number of Footprints that will be offered to the Access Seeker in a Quote is subject to:</p> <p>(a) Telecom's assessment of space restrictions within the relevant exchange; and</p> <p>(b) prioritisation and scaling under section 8.</p> <p>15.2.2 The Footprints offered in a Quote will not be finally allocated to the Access Seeker until a Firm Order has been placed.</p>
15.3	Co-location configuration	<p>15.3.1 The Co-location configurations that Telecom may offer in a Quote are:</p> <p>(a) co-mingled Footprints: Footprints are inter-mixed directly with each other within a shared row (the Access Seeker's Footprints may also be inter-mixed with Telecom racks or cabinets). The allocation of Footprints within rows will not necessarily be sequential and gaps may be left between Footprints for growth. However, if space restrictions prevent this approach then rows may be filled sequentially; and</p> <p>(b) co-mingled rows: the Access Seeker is allocated an entire row of Footprints.</p> <p>15.3.2 The default configuration for all exchanges will be co-mingled Footprints filled sequentially, however, where Telecom assesses the space restrictions at an exchange as moderate or low, it may offer co-mingled rows.</p> <p>15.3.3 Telecom may, at its discretion, locate the Co-location Service Area in a separate room or caged area (refer to section 15.7), but this cannot be required by the Access Seeker.</p> <p>15.3.4 Telecom's Build of the Co-location Service Area will be designed in an economically efficient way that provides a sensible solution. This may involve the construction of more Footprints than immediately required if that is sensible for medium term space or cost efficiency.</p>
15.4	Future Use - first six months	<p>15.4.1 During the first six months from the date the Determination Date, the Access Seeker may not Order a Footprint unless it intends to use that Footprint within six months from the date it accepts the Telecom Build. This rule does not apply where Telecom accepts that the Access Seeker has technical or operational reasons that require future equipment to be co-located next to existing equipment (e.g. for network expansion requirements). In this case the Access Seeker will be able to Order a Footprint for future use beyond the first six months (Future Use).</p> <p>15.4.2 In clause 15.4.1 "technical or operational reasons" are those reasons that would result in the Access Seeker being unable to fully utilise the operational capability of its existing equipment if the expansion equipment was not located adjacent to it.</p>
15.5	Future Use - "use it or lose it"	<p>15.5.1 After the first six months, where Telecom assesses the space restrictions at an exchange as moderate or low, the Access Seeker may Order Footprints for Future Use. The Access Seeker must pay the full Co-location Service price (as if it was using the Footprints) from the date it accepts the Telecom Build. Only if space restrictions become high will the "use it or lose it" rule apply.</p>

		15.5.2	Under the "use it or lose it" rule, if the Access Seeker has Ordered a Footprint for Future Use and space restrictions at the relevant exchange become high, then Telecom will give six months' Notice to the Access Seeker to start using the Footprint. If the Access Seeker does not start using the Footprint within six months of receiving Notice, it will lose the Footprint and Telecom may re-allocate it. The Access Seeker is "using" a Footprint if it has installed a rack or cabinet housing operational equipment (that is, equipment able to function or be used for the purpose of providing access to, and interconnection with, the UCLL Service).
		15.5.3	In the event that the Access Seeker believes that the "use it or lose it" rule has been incorrectly applied, it may follow the Dispute resolution procedure under section 39 of the Co-location General Terms. Any Dispute in relation to the "use it or lose it" rule is of a technical, operational or implementation nature and therefore, in the event of a Deadlock, must be resolved by expert determination.
15.6	Telecom acting as "Bank"	15.6.1	Where the Access Seeker's Order for Footprints causes Telecom to undertake Build that, in accordance with clause 15.3.4, creates more Footprints than are required to meet the Access Seeker's Order (for instance a new row is constructed), the Access Seeker is required to pay for the proportion of the Build they will occupy, as calculated in accordance with the Co-location Price List.
		15.6.2	Disputes arising from Telecom exercising the provisions set out in clause 15.3.4 will be resolved through the Dispute resolution procedure as set out in clause 16.2.3.
15.7	Additional rules for tier 0, 1 and 2 exchanges	15.7.1	Telecom has increased security requirements at tier 0, 1 and 2 exchanges. These exchanges provide centralised Core Network functionality extending to a number of equipment areas within the exchanges.
		15.7.2	The security of tier 0, 1 and 2 exchanges is key to the robustness of Telecom's Network and its associated service platforms. There are some limitations on the use of space in these exchanges to ensure appropriate levels of security and environmental control can be maintained. In these exchanges it is not desirable to provide co-mingling in existing equipment rooms housing sensitive Core Network equipment.
		15.7.3	For tier 0, 1 and 2 exchanges several options will be considered when addressing the need to separate the Co-location Service Area from the Core Network. These options include:
		(a)	a separate caged off area in the same room as the Core Network equipment;
		(b)	another room; or
		(c)	caging of the Core Network.
		15.7.4	A site audit of the relevant exchanges and assessment of the space available will determine which option is appropriate and the methods of Build required.
		15.7.5	Where Telecom requires separation of the Co-location Service Area from the Core Network it will pay the cost of providing caging or separate rooms in the relevant exchange.

- 15.7.6 Telecom will endeavour to complete any Build required in the relevant tier 0, 1 and 2 exchanges by the date the Co-location Terms comes into effect or before the Access Seeker requires a Footprint in these exchanges. In the event that this Build is not complete, Telecom will provide interim arrangements to allow the Access Seeker to access the relevant tier 0, 1 and 2 exchanges to the extent necessary for the Co-location Service (for instance by providing escorted access).
- 15.7.7 Telecom Wholesale will deploy all new Telecom DSLAMs and equipment used for interconnection with the Local Loop Network in the Co-location Service Area of tier, 1 and 2 exchanges.
- 15.7.8 The location and design of each Co-location Service Area will be to a standard that ensures layout and operational performance are no worse than the area where the existing Telecom DSLAMs are currently housed. Telecom will seek to ensure wherever possible the requirement for separation from Core Network will not unduly affect the Access Seeker with respect to the following factors:
- (a) the timing of unbundled co-location in a particular exchange;
 - (b) technical performance;
 - (c) the cost of the Access Seeker Build or the Telecom Build; or
 - (d) space availability.
- 15.7.9 A list of current tier 0, 1 and 2 exchanges is attached as Appendix H. Telecom may change which exchanges are designated as tier 0, 1 and 2 exchanges from time to time.

16 Quote

16.1 Overview

- 16.1.1 Telecom will respond to a Preliminary Order by issuing the Access Seeker with a Quote. The Quote will include the following information:
- (a) where available, an offer of specific Footprints to the Access Seeker;
 - (b) a co-location configuration for the Telecom Build (including detailed design and a floor plan);
 - (c) an estimated total price for the Telecom Build (**Build Cost**); and
 - (d) an estimated number of Working Days for the Telecom Build to be completed from the date the Telecom Build commences (**Build Time**).

16.2 Agreeing or rejecting a Quote

- 16.2.1 After Telecom has issued a Quote, the Access Seeker may:
- (a) accept the Quote (refer to section 17);
 - (b) reject the Quote; or
 - (c) propose an amended Quote.
- 16.2.2 If the Access Seeker proposes an amended Quote, Telecom and the Access Seeker must work together to reach agreement. It is

anticipated that the Access Seeker may propose an amended Quote if the Access Seeker:

- (a) has changed its requirements (as provided to Telecom as part of the Access Seeker's Preliminary Order); or
- (b) disagrees with Telecom's configuration, Build Cost and/or Build Time.

16.2.3 If the Access Seeker proposes an amended Quote and Telecom and the Access Seeker cannot reach agreement, either of them may follow the Dispute resolution procedure under section 39 of the Co-location General Terms. Any Dispute in relation to a Quote is of a technical, operational or implementation nature and therefore, in the event of a Deadlock, must be resolved by expert determination.

16.2.4 If the Access Seeker rejects the Quote:

- (a) its Preliminary Order will be cancelled and;
- (b) it will become liable for Telecom's reasonable costs incurred in preparing the Quote.

16.2.5 If the Access Seeker does not accept, proposes any amendment to, or rejects a Quote within 10 Working Days of receiving it from Telecom, the Access Seeker will be deemed to have rejected it and clause 16.2.4 will apply.

17 Acceptance of Telecom's Quote - "Firm Order"

17.1 Acceptance

- 17.1.1 A Quote may be accepted by the Access Seeker giving Notice to Telecom's provisioning manager.
- 17.1.2 The Access Seeker's acceptance of a Quote will constitute a Firm Order.
- 17.1.3 The Telecom Build will commence as soon as reasonably practicable following a Firm Order being made, subject only to prioritisation (refer to section 8).

18 Telecom Build

18.1 General

- 18.1.1 Telecom's co-location project manager will manage the Telecom Build and keep the Access Seeker informed of progress.
- 18.1.2 Telecom will complete the Telecom Build in accordance with the Quote and subject to clauses 18.2 to 18.5. This includes Telecom obtaining all necessary consents or other legal permissions for the Telecom Build. Telecom may change the configuration of the Telecom Build only if:
 - (a) the change is required by circumstances beyond Telecom's control and it would not materially affect the Access Seeker's intended use of the Footprint; or
 - (b) the Access Seeker agrees (whose agreement must not be unreasonably withheld, refused or delayed).

- 18.1.3 Telecom will use all reasonable endeavours to complete the Telecom Build within the Build Time, subject only to
- (a) prioritisation (refer to section 8), or,
 - (b) where an RFS Date is specified by the Access Seeker,
- the Telecom Build will commence as soon as is reasonably and practically required to ensure the Telecom Build is completed by the RFS Date specified by the Access Seeker (in which case, if the RFS Date is later than that which would apply if Telecom met the required Build Time, Telecom will not be liable under the Co-location Terms for not completing the Telecom Build within the required Build Time).

18.2 Build Time

- 18.2.1 The Build Time will start to be measured from the date a Firm Order is accepted, unless subject to prioritisation, in which case from the date Telecom commences the Telecom Build.
- 18.2.2 For the purpose of measuring the Build Time the following will not be counted as a Working Day:
- (a) any day that is not a Working Day under the Co-location Terms;
 - (b) any day that Telecom is delayed by an event which could not reasonably have been foreseen by an experienced construction contractor;
 - (c) any day that Telecom is delayed due to the operation of any law or any requirement of any Authority; and
 - (d) any day that Telecom is delayed due to the failure of the Access Seeker to provide any necessary materials or information.

18.3 Telecom Build cannot be completed

- 18.3.1 If Telecom reasonably and in good faith believes it has for any reason become impossible to complete the Telecom Build (for instance a necessary consent is refused) it must as soon as practicable give Notice to the Access Seeker's co-location project manager. Upon receiving Telecom's Notice, the Access Seeker may either:
- (a) cancel its Firm Order; or
 - (b) work with Telecom to resolve the difficulty by proposing an amended configuration and requesting a new Quote in relation to that configuration.
- 18.3.2 If the Access Seeker cancels its Firm Order under clause 18.3.1 it must pay all of Telecom's reasonable costs incurred up to the date of cancellation (excluding materials).

18.4 Build Cost exceeds Quote

- 18.4.1 If Telecom becomes aware that the Build Cost under the Quote is likely to be exceeded it will as soon as practicable give Notice to the Access Seeker.
- 18.4.2 Where the increased Build Cost is due to events which could not reasonably have been foreseen by an experienced construction contractor, then:
- (a) if the actual Build Cost exceeds the Quote by more than 10%, the Access Seeker may cancel its Firm Order; or

(b) if the actual Build Cost exceeds the Quote by less than 10% (or the Access Seeker elects not to cancel its Firm Order under clause 18.4.2(a)), such increase will be a price variation and the Quote will be adjusted accordingly.

18.4.3 In all other cases where the actual Build Cost exceeds the Build Cost under the Quote the parties must work closely together to agree the Build Cost that the Access Seeker will pay. In the event that the parties cannot reach agreement, either may follow the Dispute resolution procedure under section 39 of the Co-location General Terms. Any Dispute in relation to Build Cost is of a technical, operational or implementation nature and therefore, in the event of a Deadlock, must be resolved by expert determination.

18.5 Change to the scope of the contract works

18.5.1 The Access Seeker may advise Telecom of a change to its requirements for the Access Seeker Build after accepting the Quote, provided that any change either reduces the number of Footprints or is not a material increase.

18.5.2 Where the Access Seeker changes its requirements the following will apply:

- (a) the Access Seeker will give Notice to Telecom requesting a variation;
- (b) Telecom will provide the Access Seeker with a price variation; and
- (c) if the Access Seeker wishes to proceed with its request it will give Notice to Telecom, within 5 Working Days of receiving the price variation of its acceptance and the Quote will be adjusted accordingly.

18.5.3 If the Access Seeker rejects the revised Quote:

- (a) its Original Order will be completed; and
- (b) it will become liable for Telecom's reasonable costs incurred in preparing the revised Quote.

18.5.4 If the Access Seeker does not accept, propose any amendment to, or reject a revised Quote within 5 Working Days of receiving it from Telecom, the Access Seeker will be deemed to have rejected it and clause 18.5.3 will apply.

18.6 Hand over

18.6.1 As soon as practicable after the Telecom Build is complete, Telecom will give Notice to the Access Seeker's co-location project manager.

19 Acceptance of the Telecom Build

19.1 Notice of completion

19.1.1 The Access Seeker has 10 Working Days from the date it receives Notice under clause 18.6.1 to give Telecom's co-location project manager Notice of acceptance or rejection. The Access Seeker must liaise with Telecom's Co-location project manager to undertake its inspection.

19.1.2 If the Access Seeker does not give Notice of acceptance or rejection within 10 Working Days it will be deemed to have accepted the

Telecom Build.

- 19.1.3 From the day the Access Seeker gives Notice of acceptance or is deemed to have accepted the Telecom Build:
- (a) Telecom may issue the Access Seeker with an invoice for the Build Cost; and
 - (b) the Access Seeker will continue to be liable for all Charges for the Co-location Service (including the ongoing Charge for occupation of the Footprint).
- 19.1.4 The Access Seeker is not entitled to reject the Telecom Build unless it reasonably and in good faith believes the Telecom Build:
- (a) is not in accordance with the configuration in the Quote (taking into account any variation under section 18); or
 - (b) has not been completed in a good and workmanlike manner.
- 19.1.5 If the Access Seeker rejects the Telecom Build, its Notice of rejection must include a full justification. In the event that the Access Seeker or Telecom cannot resolve the Access Seeker's rejection of the Telecom Build, either may follow the Dispute resolution procedure under section 39 of the Co-location General Terms. Any Dispute in relation to the Telecom Build is of a technical, operational or implementation nature and therefore, in the event of a Deadlock, must be resolved by expert determination.

20 Access Seeker Build

20.1	Overview		<p>20.1.1 The Access Seeker's co-location project manager will manage the Access Seeker Build and keep Telecom informed of progress.</p> <p>20.1.2 The Access Seeker must complete the Access Seeker Build in accordance with its Permit to Work and this Manual and in a good and workmanlike manner. The Access Seeker may change the configuration of the Access Seeker Build (as detailed in its Preliminary Order) only if Telecom agrees (whose agreement must not be unreasonably withheld, refused or delayed).</p>
20.2	Permit to Work		<p>20.2.1 Telecom's Permit to Work procedure is set out in detail in section 56. The Access Seeker must have an approved Permit to Work before commencing the Access Seeker Build.</p>
20.3	Certificate of Compliance		<p>20.3.1 After the Access Seeker Build is complete, the Access Seeker must issue a Certificate of Compliance in accordance with section 21.</p>

21 Certificate of Compliance

21.1	Certificate of Compliance		<p>21.1.1 A Certificate of Compliance is required whenever the Access Seeker:</p> <ul style="list-style-type: none"> (a) completes any work that required a Permit to Work; or (b) installs any new Access Seeker Equipment. <p>21.1.2 After the Access Seeker completes any work for which a Certificate</p>
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of Compliance is required under this Manual, the Access Seeker will provide a Certificate of Compliance to the relevant Telecom co-location project manager certifying that the work and/or new Access Seeker Equipment complies with all of the Access Seeker's obligations under the Co-location Terms, including the Permit to Work.

- 21.1.3 The exact information required as part of the Access Seeker's Certificate of Compliance is set out in Appendix I.
- 21.1.4 After the Access Seeker has issued a Certificate of Compliance the Access Seeker equipment can be operationalised.
- 21.1.5 Telecom may dispute a Certificate of Compliance at any time. If Telecom disputes a Certificate of Compliance (by giving a Dispute Notice to the Access Seeker under section 39 of the Co-location General Terms) within 10 Working Days of receiving it, clause 21.1.4 will not apply and the Access Seeker Equipment will not be operationalised until the Dispute is resolved. Any Dispute in relation to a Certificate of Compliance is of a technical, operational or implementation nature and therefore, in the event of a Deadlock, must be resolved by expert determination.

22 Record keeping

22.1 General

- 22.1.1 Telecom requires access to certain information to safely manage its exchanges. The Access Seeker must comply with any reasonable request made by Telecom for information to enable Telecom to keep accurate technical records for each exchange, including information about:
 - (a) "as built" configurations;
 - (b) what equipment is installed;
 - (c) the location, power-loading and other requirements of any equipment; and
 - (d) cabling.
- 22.1.2 Any information provided to Telecom by the Access Seeker under this clause will be Confidential Information for the purposes of section 34 of the Co-location General Terms.

PART 4 - TENURE

23 Relinquishment

23.1 Overview

- 23.1.1 The relinquishment of any Footprints (i.e. a reduction of the space supplied to the Access Seeker as part of the Co-location Service) must be included in the Access Seeker's Co-location Forecast as a change to existing Footprints.
- 23.1.2 Any relinquishment Order must be made using OO&T in the same way as a Preliminary Order. Details on placing Orders using OO&T are set out in the Telecom document "OO&T User Guide" (reference ASD-001).
- 23.1.3 The relinquishment date for a Footprint will be six months from the date Telecom receives a relinquishment Order in relation to that Footprint (or less by agreement).
- 23.1.4 The Access Seeker is required to remove all the Access Seeker Equipment from within any relinquished Footprints and all the Access Seeker Equipment no longer required at the exchange by the relinquishment date.
- 23.1.5 The Access Seeker must liaise with Telecom's co-location project manager in relation to its relinquishment and may require a Permit to Work in order to remove the Access Seeker Equipment.
- 23.1.6 The Access Seeker's liability for the ongoing Charge in relation to its occupation of a relinquished Footprint will cease from the later of:
- (a) the relinquishment date; and
 - (b) the date Telecom is satisfied that all the Access Seeker Equipment has been removed and any reinstatement obligations under the Access Terms have been met.
- 23.1.7 Telecom will use all reasonable endeavours to inspect the exchange for the purpose of satisfying itself under clause 23.1.6(b) as soon as practicable after the Access Seeker requests it to do so.
- 23.1.8 If the Access Seeker fails to remove the Access Seeker Equipment within 10 Working Days from the relinquishment date, Telecom will use all reasonable endeavours to give the Access Seeker Notice of Telecom's rights under the Access Terms.
- 23.1.9 If the Access Seeker has not removed the Access Seeker Equipment within 40 Working Days from the relinquishment date, Telecom will be entitled to treat the Access Seeker equipment as its own and may retain or dispose of it as Telecom sees fit.
- 23.1.10 The Access Seeker will remain liable for all Charges up to the date all of the Access Seeker Equipment has been removed.

24 Cabinetisation

24.1	General		24.1.1 The responsibilities and obligations arising from cabinetisation are set out under section 38 of the Co-location General Terms.
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25 Relocation

25.1	Overview		25.1.1 This section outlines the circumstances in which Telecom can require the Access Seeker to relocate the Access Seeker Equipment and describes the procedure for relocation.
25.2	Relocation	25.2.1	Where Telecom's own Core Network or building services infrastructure expansion necessitates it, Telecom may require the Access Seeker relocate the Access Seeker Equipment from its existing Footprint to a different Footprint. Telecom ensures that the relocation has no material impact on the operation or performance of the Access Seeker Equipment.
		25.2.2	Telecom's Core Network or building services infrastructure expansion will only require the relocation of the Access Seeker Equipment if the technical requirements of the expansion are such that it must use space that either is:
		(a)	wholly or partially occupied by the Access Seeker Equipment; or
		(b)	in a position that would have a negative operational impact upon the Access Seeker Equipment.
25.3	Relocation procedure	25.3.1	The procedure for relocating the Access Seeker Equipment is equivalent to the provisioning procedure under sections 12-17, save that:
		(a)	Telecom must first give three calendar months' Notice to the Access Seeker that it will require the Access Seeker to relocate. Telecom's Notice must specify which Footprints will be relocated and when the relocation is required by;
		(b)	the Access Seeker must acknowledge receiving Telecom's Notice and provide Telecom with any relevant requirements it has in relation to the relocation;
		(c)	Telecom will then issue a relocation plan to the Access Seeker (which includes the proposed configuration and timeframe for the relocation as well as any temporary solutions required to ensure continuity of operation of the Access Seeker Equipment);

- (d) the Access Seeker must then accept or amend the relocation plan on the same basis that it would a Quote. A relocation plan cannot be rejected; and
 - (e) the Access Seeker must then provide Telecom with a quote for its own costs and timeframes for the Access Seeker Build, relocation and installation. Telecom may accept, amend or reject the Access Seeker's quote. Any amendment of the quote by Telecom will be dealt with on the same basis as a Quote under clause 16.2. Telecom is entitled to reject the quote and not proceed with the relocation. If Telecom rejects the quote it will become liable for the Access Seeker's reasonable costs incurred in preparing it.
- 25.3.2 The remaining steps (Telecom Build, acceptance, hand over, the Access Seeker Build and Certificate of Compliance) are equivalent to the terms dealing with provisioning above. After the Access Seeker has issued a Certificate of Compliance it may invoice Telecom for the sum equal to its quote.
- 25.3.3 The Access Seeker and Telecom will work closely with each other to facilitate the relocation procedure. In the event that Telecom and the Access Seeker cannot resolve a relocation issue, either may follow the Dispute resolution procedure under section 39 of the Co-location General Terms. Any Dispute in relation to relocation is of a technical, operational or implementation nature and therefore, in the event of a Deadlock, must be resolved by expert determination.

26 Termination

26.1 General

- 26.1.1 Telecom's rights to terminate supply of the Co-location Service are set out under the Co-location Access Terms and the Co-location General Terms.

PART 5 - BILLING

27 Billing

27.1 Overview	<p>27.1.1 Billing is driven by Orders for the Co-location Service made by the Access Seeker.</p> <p>27.1.2 This section covers:</p> <ul style="list-style-type: none"> (a) invoicing; (b) billing enquiries; and (c) the Co-location Price List File.
27.2 Invoicing	<p>27.2.1 Telecom will invoice the Access Seeker for all Charges on the basis specified in the Co-location Price List. Invoices for all Charges will be in an electronic bill format (eBill). eBill takes the place of a paper invoice, except that a printed GST summary will be provided to the Access Seeker. A hardcopy paper invoice will be available to Access Seekers at the price set out in the Co-location Price List.</p> <p>27.2.2 Telecom will make eBill files available using a secure HTTPS gateway. eBills can be accessed on the HTTPS site through a web browser. Alternatively, the Access Seeker can arrange with the secure HTTPS gateway provider (as advised by Telecom) to write its own scripts and access the eBill through a script platform.</p> <p>27.2.3 The Access Seeker will provide Telecom with a list of people who are authorised to download eBills. Telecom will set up access rights for these people on the HTTPS gateway.</p> <p>27.2.4 Telecom will provide eBills and printed GST summaries to the Access Seeker free of charge.</p> <p>27.2.5 Telecom will maintain one or more separate accounts for services provided to the Access Seeker. Telecom may alter the account structure as it considers appropriate.</p>
27.3 Billing enquiries	<p>27.3.1 If the Access Seeker wishes to raise a billing enquiry, it may contact the Telecom billing team by emailing the co-location billing team contact email address.</p> <p>27.3.2 The email must include the following information:</p> <ul style="list-style-type: none"> (a) a header reading "Billing Query"; and (b) a completed "Billing Enquiry Form" (reference ASF-004). <p>27.3.3 Telecom will acknowledge the query and use all reasonable endeavours to respond within the current billing period. Any billing enquiries submitted without the use of a "Billing Enquiry Form" will be rejected.</p> <p>27.3.4 Additional billing information, over and above that reasonably required to assist Access Seekers interpreting invoices, will be charged in accordance with the Co-location Price List.</p>

- 27.3.5 The procedure set out in this section is an informal enquiry procedure that does not limit the Co-location General Terms. If the Access Seeker wishes to initiate an Invoice Error Dispute in relation to an invoice, it must follow the procedure set out in section 17 of the Co-location General Terms.

28 Co-location Price List File

28.1 General

- 28.1.1 As part of the Access Seeker's access to Telecom's operational support systems, the Access Seeker will be set up to receive an up to date electronic version of the Co-location Price List (**Co-location Price List File**). The Co-location Price List File may include prices for commercial services that do not form part of the Co-location Service.
- 28.1.2 The Co-location Price List File will be updated when there are changes to services, products or pricing. (All price changes will be indicated.)
- 28.1.3 Telecom will transmit any updated Co-location Price List File using Telecom's secure HTTPS gateway. The Co-location Price List File can be accessed on the HTTPS gateway through a web browser. Alternatively, the Access Seeker can arrange with the secure HTTPS gateway provider (as advised by Telecom) to write its own scripts and access the Co-location Price List File through a script platform.
- 28.1.4 The Access Seeker will provide Telecom with the list of people who are authorised to download the Co-location Price List File. Telecom will set up access rights for these people on the HTTPS gateway.

PART 6 - TIE CABLES

29 Tie cabling

29.1	Overview	29.1.1	Tie cables are used to connect two points of a network or separate networks together. Two types of tie cables may be required under the Co-location Service:
		(a)	tie cables running from the Access Seeker's HDP on the MDF to the Access Seeker's Footprint in the exchange (Intra-exchange Tie Cable); and
		(b)	a fibre tie cable running from the Access Seeker Equipment to either: <ul style="list-style-type: none"> (i) the Access Seeker's or a third party network fibre cable outside and adjacent to Telecom's exchange manhole; or (ii) ancillary backhaul equipment installed within a Footprint on the exchange (for instance an external satellite dish), (Co-location Backhaul Tie Cable).
		29.1.2	The Access Seeker may either supply its own tie cables (which must meet the specifications set out in the Telecom document "Tie Cable Specification"), or request Telecom to supply tie cables (in which case the number of tie cables to be provided for each Footprint must be detailed in the Access Seeker's Co-Location Forecast and its Preliminary Order). Where Telecom supplies a tie cable the Access Seeker will purchase that tie cable from Telecom for a commercially agreed price and it will become Access Seeker Equipment.

30 Intra-exchange Tie Cabling

30.1	Identifier	30.1.1	Designations (names) will be assigned by Telecom to each copper tie cable pair for Intra-exchange Tie Cables, for instance ELL L099-03-099 identifies Co-location Footprint number 99, tie cable 3, pair 99 at the Ellerslie exchange.
		30.1.2	This naming standard is contained in the Telecom document "Network Naming Standard for Local Loop Unbundling Requirements" (reference ND0459).
30.2	Telecom responsibilities	30.2.1	Telecom will name all pairs within any Intra-exchange Tie Cable and record these in a copper tie cable pair inventory system.
		30.2.2	As part of Telecom's Quote, where tie cables have been requested, Telecom will provide the designation of each pair in the form of start and end positions. For instance, a 100 pair copper tie cable will have its first and last pair terminations identified so that each pair in-between can be named from the sequence.
		30.2.3	Telecom will (at the Access Seeker's cost):

- (a) supply and record the necessary space on the HDP;
- (b) identify the route that the Intra-exchange Tie Cabling will take and install any required cable racking to support that cable;
- (c) install the Intra-exchange Tie Cable from the Access Seeker's Footprint and terminate the MDF end on the HDP; and
- (d) when requested, maintain and repair any faults within the Intra-exchange Tie Cable.

30.3 Access Seeker responsibilities

30.3.1 The Access Seeker must correctly terminate tie cables within one of its Footprints using the correct colour-code sequence as specified in the Telecom document " Network Naming Standard for Local Loop Unbundling Requirements " (reference ND0459), further:

- (a) as the tie cable designation includes identification of the Footprint, the tie cable must only be terminated within that Footprint and not taken elsewhere; and
- (b) the correct colour-code sequence must be followed for terminating and recording.

30.3.2 The Access Seeker must maintain and be responsible for its own copper tie cable pair inventory system. This system must be able to record the following:

- (a) the termination of each tie cable at the Footprint end (whether terminated on blocks in the Footprint or directly on the Access Seeker Equipment);
- (b) the Access Seeker's own assignments or reassignments of tie cables; and
- (c) changes to tie cables when service has been transferred (e.g. for fault resolution).

30.3.3 The Access Seeker is responsible for the repair/replacement of faulty termination of the Intra-exchange Tie Cable at both the Access Seeker's Footprint and at the HDP.

30.4 Testing

30.4.1 After the Intra-exchange Tie Cable is terminated at both the HDP and the Access Seeker's Footprint, Telecom and the Access Seeker will jointly carry out end to end testing.

30.5 Resolution of inconsistency

30.5.1 Where Telecom's records and the Access Seeker's records differ about the status of a pair, the Access Seeker must confirm the accuracy of the status of that pair in its copper tie cable pair inventory system.

30.5.2 If this does not resolve the difference, the Access Seeker must liaise with Telecom's provisioning manager.

31 Co-location Backhaul Tie Cable

31.1 Telecom responsibilities

31.1.1 Telecom will identify the route that the Co-location Backhaul Tie Cable will take within the exchange, Telecom ducts and Telecom exchange manholes and then install any required cable racking to

support it.

- 31.1.2 Telecom will (at the Access Seeker's cost) install the Co-location Backhaul Tie Cable between the Access Seeker's network cable or ancillary backhaul equipment and the Access Seeker's Footprint.
- 31.1.3 For Telecom supplied cable (and unless agreed otherwise), the Co-location Backhaul Tie Cable will be delivered to the Access Seeker at a point to be determined by Telecom. It is anticipated that this will usually be outside of and immediately adjacent to the exchange manhole or the Footprint within which ancillary backhaul equipment is installed. The Access Seeker may request the length of cable to be delivered by Telecom as part of its Preliminary Order.
- 31.1.4 For cable supplied by the Access Seeker, a length advised by Telecom will be received at Telecom's exchange manhole.
- 31.1.5 In either case, Telecom and the Access Seeker will liaise so that the cable is handed over from person to person, with Telecom performing all work in its exchange manhole.

31.2 Access Seeker responsibilities

- 31.2.1 The Access Seeker will deliver its (or a third party) network cable to Telecom at the exchange manhole.
- 31.2.2 The Access Seeker will complete any joint between the network cable and its Co-location Backhaul Tie Cable outside of the Telecom exchange manhole.
- 31.2.3 The Access Seeker will terminate the Co-location Backhaul Tie Cable within the Access Seeker's Footprint.

31.3 Testing

- 31.3.1 After the Co-location Backhaul Tie Cable is jointed to the network cable by the Access Seeker and terminated at the Access Seeker's Footprint, the Access Seeker will carry out any end to end testing.

32 Tie cable entry

32.1 General requirements

- 32.1.1 Telecom will specify the entry point into any exchange for the Access Seeker's tie cables. It is anticipated that the entry point will most commonly be from the exchange manhole into the exchange using the exchange access ducts. In some cases the entry point may be directly into the building.
- 32.1.2 Tie cable entry other than using the specified entry point is prohibited.
- 32.1.3 Telecom will undertake all cabling on any exchange (including any penetration into and work within the exchange manhole) and determine:
 - (a) the duct cable route;
 - (b) sub-ducting;
 - (c) the protection standards to be used;
 - (d) fastening;
 - (e) the location of any joints or joint boxes; and

(f) the internal cable route of any cable on a Telecom Site (including within an exchange).

32.1.4 Telecom will provide supervision for any thrusting or trenching near Telecom ducts and within 20 metres of any Telecom exchange manhole or exchange.

32.2 Cable identification marking

32.2.1 All cables and closures belonging to the Access Seeker must be clearly marked to ensure the owner is correctly identified. Markings must occur at least every 1 metre (sufficiently clear to enable ready identification of the cable owner).

32.2.2 All fibre closures on Telecom property must have an appropriate laser warning label that complies to IEC 60825-2 (2004) fixed in a prominent position on the outside of the closure.

33 Exchange manhole

33.1 Overview

33.1.1 Most exchanges have at least one Telecom exchange manhole. The exchange manhole provides duct access into the exchange cable well and is the congregation point for all of the ducts and cables that enter the exchange.

33.1.2 Any ducting or installation in the street to get the Access Seeker's tie cable to the exchange manhole must comply with all applicable laws (including local government regulation) and obligations under the Co-location Terms.

33.2 Tie cable management in the exchange manhole

33.2.1 Telecom will install tie cables in any Telecom exchange manhole at the Access Seeker's cost (this includes installing cable management brackets if Telecom believes they are required).

33.3 Duct to the exchange cable well

33.3.1 The Access Seeker's duct and/or sub-ducts must be sealed at both ends after cables have been installed with the "T-Dux" product. Refer to the installation instructions supplied with the product.

33.3.2 Where the Access Seeker is undertaking work to get its tie cable to the exchange manhole, the Access Seeker must liaise with Telecom so that the work of both parties is co-ordinated. Telecom will rely on the Access Seeker to:

(a) satisfy the requirements of any law or Authority to allow the work in the exchange manhole to be undertaken (such as putting in place a traffic management plan); and

(b) arrange for how and when the Access Seeker's tie cable will be handed over.

34 Running tie cables within the exchange

34.1 Cable trays

34.1.1 All tie cables run within an exchange will be installed and maintained by Telecom.

PART 7 - CO-LOCATION SERVICE AREAS

35 Service Areas

35.1	Overview	35.1.1 This part describes the normal operating standards and specifications that apply to Footprints. Except for clause 36.1.1, the standards and specifications set out apply only to Footprints within the Co-location Service Areas in an exchange. The characteristics of each Footprint on an exchange for the installation of ancillary backhaul equipment will be unique.
35.2	Co-location Service Areas	<p>35.2.1 Co-location Service Areas will provide a working environment broadly equivalent to that provided for existing Telecom equipment and will typically include:</p> <ul style="list-style-type: none"> (a) vinyl floors; (b) painted walls and ceilings; (c) air conditioning; (d) equipment mounting and bracings; (e) lighting; (f) electrical reticulation; and (g) access control. <p>35.2.2 The Co-location Service will be supplied with Building Services in accordance with Telecom's normal operating standards and specifications as outlined below.</p>

36 Access Seeker Equipment

36.1	Access Seeker Equipment	<p>36.1.1 All Access Seeker Equipment installed within an exchange must comply with the same standards as those currently applied to Telecom for its own equipment. Standards will be included in Access Seeker technical documents, which Telecom will make available on its website (publicly accessible website).</p> <p>36.1.2 The Access Seeker's racks and cabinets must be electrically isolated from the building (including any seismic bracing) to prevent electrical interference. An earth bar will be provided in every Co-location Service Area to which the earthing systems of each item of Access Seeker Equipment must be connected. Any alarm lights or bells must be installed on the Access Seeker's racks or cabinets.</p>
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37 Ancillary facilities

37.1	Normal operating standards	37.1.1 Telecom, at its discretion, may specify whether car parking, toilet and/or kitchen facilities at an exchange are available to the Access Seeker. If these facilities are available they may be used by representatives of the Access Seeker during any period such representatives are working at the exchange subject to any
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conditions specified by Telecom as to the use of such facilities.

37.1.2 Telephone services are not available as part of the normal operating standards or specifications.

38 Space and height

38.1	Requirements	38.1.1	The Access Seeker may only occupy a Footprint it has been allocated as part of the Co-location Service.
		38.1.2	The Access Seeker may provide lockable cabinets to protect the Access Seeker Equipment. These cabinets must meet the requirements of the Telecom document "Seismic Protection Standards Manual" (reference 2856), and the associated Telecom document "Specification for Telecommunications Equipment Seismic Frames" (reference ND0137), to protect Telecom and Other Service Providers from damage or interruption associated with seismic events.
38.2	Heat generating equipment	38.2.1	Cabinets that contain heat-generating equipment must be configured in the same way so that each row dissipates heat on the same side. Telecom will designate a hot and a cold side for each row.
38.3	Footprints within an exchange	38.3.1	Footprints in an exchange will: <ul style="list-style-type: none"> (a) measure 600 x 300 mm; and (b) have a height between 1,900 mm and 2,500 mm.
		38.3.2	The Footprints in some exchanges will have a height of up to 2,500 mm. The Access Seeker can establish the available height either by Ordering a Full Site Audit or by receiving a Quote that relates to a specific Footprint.
		38.3.3	Telecom's normal operating standard is to provide a working space of approximately 1,000 mm along the front and back face of each row. This standard is subject to space restrictions within the exchange.
		38.3.4	The Access Seeker may Build up to the edge of any Footprint. Footprints will be spaced to provide side clearance for seismic sway, people access or the installation of more cabinets at Telecom's discretion and in accordance with the seismic requirements of the particular exchange. In most cases side clearance of no more than 50 mm will be provided for (except where exchange specific seismic conditions require more).
		38.3.5	As part of a Quote Telecom will provide a floor plan identifying: <ul style="list-style-type: none"> (a) the exact location of each Footprint; (b) an identifier for each row and Footprint; and (c) the hot and cold side of each row.
38.4	Footprints on an exchange	38.4.1	The characteristics of each Footprint on an exchange for the installation of ancillary backhaul equipment will need to be agreed between the Access Seeker and Telecom in each case as part of a Quote.

39 Lighting, floor covering and finishes

39.1	Lighting	39.1.1	Telecom will supply lighting to a minimum level of 200 lux by way of suspended or ceiling-mounted fluorescent light fittings. Telecom's target operating standard is to supply lighting to a level of approximately 500 lux measured at a height of 600 mm off the floor.
39.2	Flooring	39.2.1	Floor coverings will be equivalent to those used in existing Telecom equipment areas within the exchange. Newer sites use conductive or anti-static vinyl with conductive glue to concrete.
39.3	Internal walls	39.3.1	Any room containing a Co-location Service Area will be classified as a "fire cell".

40 Temperature control

40.1	Overview	40.1.1	Co-location Service Areas will be designed to keep the air temperature within a range from 15 to 35°C. The normal operating standard for the centre of equipment aisles within a Co-location Service Areas is 22 to 26°C.
		40.1.2	Co-location Service Areas will be equipped with temperature alarms that are activated at 30°C (initial high), 35°C (urgent high) and at 15°C (low).
		40.1.3	Humidity will not necessarily be controlled in Co-location Service Areas. Humidity alarms, where installed, are set at 35% (low) and 65% (high).
40.2	Air conditioning systems	40.2.1	Air temperature and humidity control will be maintained by a variety of plant at exchanges (including in some cases plant specific to the Co-location Service Area).
		40.2.2	The main types of cooling systems used are:
		(a)	air conditioning systems:
		(i)	DX (split or window units); and
		(ii)	chilled water process coolers (in larger exchanges only); and
		(b)	fresh air.
		40.2.3	The removal of heat from a Co-location Service Area will primarily be achieved by circulating air through mechanical plant or, in the case of fresh air systems, by exhausting heated air to the atmosphere.
40.3	Access Seeker responsibilities	40.3.1	Each Access Seeker will be responsible for ensuring that:

- (a) the air flow within its racks and/or cabinets is sufficient to keep the Access Seeker Equipment cool; and
- (b) air is taken from the cold aisle and exhausted into the hot aisle.

41 Fire protection

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| 41.1 | Normal operating standards | <p>41.1.1 Fire detection systems vary between different exchanges. Telecom will supply the Co-location Service Area with fire protection systems equivalent to those installed in existing Telecom equipment areas within the exchange, provided that Telecom will have no obligation to provide very early smoke detection apparatus.</p> <p>41.1.2 Sprinkler systems may be installed in larger exchanges. The Access Seeker Equipment must comply with the New Zealand Insurance Council's current rules regarding the obstruction of sprinkler systems.</p> |
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42 Power

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| 42.1 | Normal operating standards | <p>42.1.1 The default power source supplied to the Access Seeker will be -48V DC power in 16 amp steps with the same back-up capability as -48v DC power provided to Telecom equipment areas within the same exchange. The Access Seeker may Order additional 16 amp steps in accordance with the Co-location Price List.</p> <p>42.1.2 The Access Seeker's Preliminary Order must specify its DC power load, fuse/breaker ratings and a line diagram of the proposed wiring.</p> <p>42.1.3 All power connections to the DC power system of an exchange at the fuse end must be undertaken by Telecom (mistakes during the connection procedure can cause power loss to other telecommunications network equipment (including Telecom's Core Network) which may be connected to the same power distribution cabinet). The Access Seeker is responsible for connection at the Footprint end.</p> <p>42.1.4 The fuse/circuit breaker rating will be used to indicate power use. Power usage will be assessed as 0.67 of the nominal fuse or circuit breaker rating for single feeds or 0.335 of the nominal rating for dual feed applications.</p> <p>42.1.5 Cabling must be fused or protected by circuit breakers appropriate to each cable. The maximum feed supplied by Telecom to the Access Seeker per Footprint will use a maximum distribution circuit breaker of 63 amp, with usage fees charged in multiples of 16 amp. For the avoidance of doubt, if an Access Seeker uses a 25 amp circuit breaker, the Access Seeker will be charged as two times 16 amp. An approximate 3:1 fuse discrimination ratio must be maintained between series fuses or circuit breakers. This ensures that, when a fault occurs, only one device will blow cutting supply to the minimum amount of other equipment.</p> <p>42.1.6 Separate power feeds from outside the exchange and the installation of batteries are prohibited.</p> |
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43 Overhead racking

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| 43.1 | General | 43.1.1 | Telecom will supply overhead ladder racking to match the cabinet or rack layout. |
| | | 43.1.2 | Telecom will run incoming cabling (including fibre, earth conductor, paired cable, coax cable and tie cables between the Access Seeker Equipment and the MDF) on the overhead ladder racking to match the Footprint layout. |

44 Equipment mounting/seismic bracing

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| 44.1 | Normal operating standards | 44.1.1 | The Access Seeker Equipment must comply with the design standards specified in the Telecom document "Seismic Protection Standards Manual" (reference 2856) and the Telecom document "Specifications for Telecommunications Equipment Seismic Frames" (reference ND0137). |
| | | 44.1.2 | Telecom will supply seismic infrastructure equivalent in function to that provided for existing Telecom equipment. |
| | | 44.1.3 | The Access Seeker must specify the estimated total weight of each cabinet and rack as part of its Preliminary Order so that Telecom can check floor strength. Telecom's typical floor loading capacity is up to a maximum of 4KPa (approximately 500 Kg/m ²). |

45 Earthing

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| 45.1 | Normal operating standards | 45.1.1 | The Access Seeker must comply with the earthing requirements set out in the Telecom document "Transmission Stations Earthing Connections" (reference 0033) and the Telecom document "Earthing Systems for Telecom Sites" (reference ND0335). |
| | | 45.1.2 | Telecom will install a 95 or 120 mm ² green earth cable to an earth bar at the end of each row for the connection of Access Seeker Equipment. |
| | | 45.1.3 | The Access Seeker's racks and cabinets must be isolated from the building. Isolation must be tested and verified to be 5 Mohm at 100 Volts before connecting to the earth grid. |
| | | 45.1.4 | Every cabinet or rack must be joined to the earth grid cable by a 6 mm ² green cable. Joints of 2 or 4 cabinet or rack cables must be made every 1,200 mm using a crimp tee or line tap connector. |
| | | 45.1.5 | All earthing schemes at an exchange must be approved by Telecom. |
| | | 45.1.6 | All connections to existing earthing systems (including connections from cabinets, racks and signal cabling) must be to the earth bar. Telecom will approve cable sizes and quantities. |
| | | 45.1.7 | Cable screens must be earthed at the Telecom end only, not at the Access Seeker's end. |

46 Environmental and power alarm monitoring

46.1 Normal operating standards

- 46.1.1 Environmental, power and plant failure alarms are monitored by Telecom.
- 46.1.2 The environmental alarm point settings are set out in section 40 above. Some exchanges also have plant failure alarms which indicate when particular plant components have failed.
- 46.1.3 Telecom will dispatch representatives to exchanges that have generated alarms

PART 8 - FAULTS

47 Faults

47.1	Overview	<p>47.1.1 This section describes:</p> <ul style="list-style-type: none"> (a) the Access Seeker's and Telecom's respective responsibilities for faults; (b) the steps the Access Seeker must take before reporting a fault to Telecom; and (c) how to report a fault.
47.2	Relationship with the Co-location General Terms	<p>47.2.1 The faults section of this Manual applies subject to the Co-location General Terms. The Access Seeker's and Telecom's respective responsibilities for faults are set out in section 24 of the Co-location General Terms.</p>
47.3	General	<p>47.3.1 Telecom has a web-based fault management system (OFM). OFM allows Access Seekers to:</p> <ul style="list-style-type: none"> (a) create a new trouble ticket; (b) retrieve a trouble ticket; (c) update a trouble ticket; and (d) report Co-location faults;
47.4	Training and Support	<p>47.4.1 Telecom will provide reasonable initial set-up training on OFM.</p> <p>47.4.2 "reasonable initial set-up training" in this context consists of a workshop, held at a Telecom location, covering the items below (relating to the OFM system):</p> <ul style="list-style-type: none"> (a) overview of forms for fault reporting; (b) basic details of the OFM system (including demonstration of the system); (c) Q&A. <p>47.4.3 Access Seekers will ensure that a reasonable number of staff (up to a maximum of 10) attend any training provided the Access Seeker in respect of OFM.</p> <p>47.4.4 Any additional training required by the Access Seekers beyond reasonable initial set-up training will be charged for by Telecom in accordance with the Co-location Price List.</p>
47.5	Additional Functionalities or Enhancements to OFM	<p>47.5.1 Where Telecom creates any additional functionality within OFM or makes any enhancements to it, Telecom will notify the Access Seeker. The Access Seeker will modify its own fault systems and its own operational procedures to the extent required. Telecom must consult with the Access Seekers before notifying the Access</p>

Seekers of any additional functionality or enhancements to OFM which affect the use of OFM in relation to the Co-location Service

47.5.2 The Access Seeker will utilise the additional functionalities or enhancements to OFM as notified by Telecom from the date specified in Telecom's Notice (at the latest).

47.6 Terms of use

47.6.1 The Access Seeker must only use OFM for purposes authorised by Telecom.

47.6.2 Telecom will use all reasonable endeavours to ensure that OFM is available to Access Seekers 24 hours a day, 7 days a week.

47.6.3 Although Telecom intends to take reasonable steps to prevent the introduction of viruses or other destructive features to OO&T, Telecom does not guarantee that it is free of such viruses or other destructive features.

47.7 Costs

47.7.1 Telecom Costs: Telecom will be solely responsible for Telecom's costs of designing and developing OFM, including any modifications and enhancements.

47.7.2 Access Seeker Costs: Access Seekers will be solely responsible for the costs of modifying their processes to work with OFM and their systems to interface with OFM (if applicable).

47.7.3 OFM Fees: Telecom will charge a monthly licence fee for OFM as set out in the Co-location Price List.

48 Responsibility for faults

48.1 Telecom's responsibility

48.1.1 Telecom is responsible for fixing faults in Telecom's Network or Telecom Owned Equipment which affect the Co-location Service supplied to the Access Seeker (except where a fault is the Access Seeker's responsibility because it is due to any act or omission of the Access Seeker or a customer or End User of the Access Seeker). Faults in the MPF are dealt with as part of the UCLL Service. Faults which might arise under the Co-location Terms that are Telecom's responsibility include:

- (a) Building Services faults; and
 - (b) faults in the HDP itself.
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48.2 The Access Seeker's responsibility

48.2.1 The Access Seeker is responsible for fixing all faults within Access Seeker Equipment or the telecommunications network of the Access Seeker. This includes all faults in the Intra-exchange Tie Cable or the Co-location Backhaul Tie Cable. The Access Seeker is also responsible for the correct termination of all tie cables at the Access Seeker's Footprint or cabinet.

48.2.2 The Access Seeker's responsibility for faults also includes any faults due to any act or omission of the Access Seeker or a customer or End User of the Access Seeker.

48.2.3 Although the Access Seeker is responsible for fixing some faults outside of its Footprint (such as tie cable faults), the Co-location Terms do not create an unconditional right of access to any exchange. Only Telecom representatives may carry out work at an exchange outside of the Access Seeker's Footprint (or the Footprint

of an Other Service Provider). Where the Access Seeker has responsibility for a fault outside of its Footprint, it must pay Telecom to fix that fault on its behalf in accordance with the Co-location Price List.

49 Diagnosing faults

49.1	General	<p>49.1.1 The Access Seeker must operate a faults reporting service for customers of the Access Seeker. Telecom will not accept any report of a fault from a customer or End User of the Access Seeker. Any customer or End User of the Access Seeker mistakenly contacting Telecom will be advised to contact the Access Seeker. The Access Seeker should ensure that all of its customers are informed that faults must be reported to the Access Seeker and not Telecom.</p> <p>49.1.2 The Access Seeker is also responsible for initial fault diagnosis to determine who is responsible for fixing a fault before reporting it to Telecom. The Access Seeker's full obligations in relation to initial fault diagnosis are set out in the Co-location General Terms.</p>
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50 Reporting faults to Telecom

50.1	Overview	<p>50.1.1 Telecom will operate a faults reporting service for Access Seekers. The Access Seeker should report faults that are Telecom's responsibility via OFM.</p> <p>50.1.2 Where the Access Seeker reports a fault outside of Telecom's responsibility, Telecom may charge the Access Seeker in accordance with the Co-location Price List.</p>
50.2	Reporting faults via OFM	<p>50.2.1 Subject to clause 50.2.2 the Access Seeker must use OFM for reporting all faults regarding the Co-location Service. If the Access Seeker uses any other method to report a fault, the Service Levels under the Service Level Terms will not apply to the fault.</p> <p>50.2.2 Where Telecom advises the Access Seeker OFM is unavailable, the Access Seeker must submit fault reports to Telecom by calling the 0800 fault reporting service number provided by Telecom. Telecom will use all reasonable endeavours to advise Access Seekers immediately upon becoming aware that the OFM is unavailable.</p> <p>50.2.3 Once the Access Seeker has provided initial fault diagnosis, complied with section 25 of the Co-location General Terms and determined that it requires Telecom's assistance to resolve the fault, the following information is required when reporting a fault:</p> <ul style="list-style-type: none"> (a) confirmation that the initial fault diagnosis has been completed; (b) contact name and phone number of the Access Seeker staff member logging the fault; (c) Co-location Footprint number that is experiencing the fault (where appropriate); (d) fault type and description;

- (e) time the fault occurred;
- (f) address and contact details for the site of the fault (where appropriate); and
- (g) any other relevant information.

50.3 OFM Fault processing

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- 50.3.1 Telecom will use all reasonable endeavours to ensure that all Faults entered into OFM by Access Seekers outside of Fault Restoration Hours are processed in the first Fault Restoration Hour the next day. For the purpose of determining whether Telecom has met any relevant Service Level Terms for dealing with Faults, any Faults submitted to Telecom outside of Fault Restoration Hours will be deemed to have been received by Telecom in the first Fault Restoration Hour of the following day.
 - 50.3.2 When a fault report is received, Telecom will advise the Access Seeker, acknowledging receipt of the fault report, subject to clause 50.3.1.
 - 50.3.3 If, for each fault report that is submitted, the Access Seeker does not comply with section 50.2, the relevant Service Level Terms will not apply.
 - 50.3.4 Telecom will perform a validation check of each fault report that it receives. The validation check will determine whether the fault report complies with the requirements of this Manual.
 - 50.3.5 Telecom will use its fault prioritisation systems to provide the Access Seeker with notification of expected fault restoration time.
 - 50.3.6 Telecom will use all reasonable endeavours to meet the notified expected fault restoration time as provided in clause 50.3.5.
 - 50.3.7 Where Telecom has allocated an expected fault restoration time to a fault and it subsequently becomes apparent that the fault restoration time cannot be met, Telecom will advise the Access Seeker of a revised fault restoration time. In that situation the Service Levels in the SLA will continue to apply to the originally notified expected restoration time, rather than the revised fault restoration time.

50.4 Irregularities

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- 50.4.1 Telecom may waive immaterial irregularities and process fault reports where the intention is unambiguous. Examples of such irregularities include:
 - (a) use of different conjunctions (e.g. "&" instead of "and");
 - (b) improper application or omission of apostrophes;
 - (c) variations in letter case;
 - (d) use of initials instead of first names, or vice versa; and
 - (e) names where letters have been accidentally transposed but the meaning is still clear (e.g. Dominoin = Dominion).

50.5 Fixing faults

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- 50.5.1 Faults that are Telecom's responsibility will be fixed by Telecom representatives during Fault Restoration Hours. If a fault is logged outside of those hours, it is possible Telecom will only start working on the fault as from 7.00 am the following day. Extended fault

restoration hours apply for emergency faults.

- 50.5.2 Emergency faults reported to Telecom outside of the hours of operation set out in clause 50.5.1 will be treated on a case by case basis. In the first instance, Telecom will propose a temporary solution. However, in the absence of a viable temporary solution, Telecom may schedule a callout to respond to emergency faults.

PART 9 - WORKING ON TELECOM'S NETWORK - TELECOM

51 Outages

51.1	Overview	51.1.1	Work may be required on Telecom's Network which may affect the Co-location Service supplied to the Access Seeker. This section summarises Telecom's responsibilities in respect of Planned and Unplanned Outages.
51.2	Relationship with the Co-location General Terms	51.2.1	This section applies subject to the Co-location General Terms. Telecom's responsibilities in respect of outages are set out in section 23 of the Co-location General Terms.
51.3	General	51.3.1	Where practical, Telecom will use all reasonable endeavours to give the Access Seeker reasonable advice of outages which are likely to adversely affect the Co-location Service. If an outage is service impacting, the Access Seeker may need to advise its customers.
51.4	Planned Outages	51.4.1	Telecom may suspend supply of the Co-location Service for the purpose of conducting works, routine maintenance, remedial work or upgrades to Telecom's Network (Planned Outage).
		51.4.2	<p>Telecom will use all reasonable endeavours to:</p> <ul style="list-style-type: none"> (a) conduct any Planned Outage between the hours of 11.00 pm to 6.00 am inclusive, where Telecom believes that is practical; (b) advise the Access Seeker in advance of any Planned Outage; and (c) provide the following information: <ul style="list-style-type: none"> (i) a brief explanation of the reason for the Planned Outage; (ii) the intended date, time and duration of the Planned Outage; (iii) a description of the Co-location Service (or the relevant part of it) which will be affected by the Planned Outage; and (iv) the name and contact details of Telecom's representative(s) who gave the advice.
51.5	Unplanned Outages	51.5.1	<p>Telecom may suspend supply of the Co-location Service due to:</p> <ul style="list-style-type: none"> (a) any unplanned unavailability of Telecom's Network or the Co-location Service; or (b) in order to provide or safeguard service to the emergency or other essential services (Unplanned Outage).
		51.5.2	<p>Telecom will use all reasonable endeavours to:</p> <ul style="list-style-type: none"> (a) give the Access Seeker as much advice as possible of the existence

of any Unplanned Outage;

- (b) advise the Access Seeker as soon as reasonably practical after Telecom becomes aware of any Unplanned Outage; and
- (c) answer any reasonable questions from the Access Seeker about the extent and duration of any Unplanned Outage.

51.5.3 If the Access Seeker becomes aware of any Unplanned Outage before it receives advice from Telecom under clause 51.5.2, the Access Seeker will make reasonable efforts to notify Telecom as soon as reasonably practical.

PART 10 - WORKING ON TELECOM'S NETWORK – THE ACCESS SEEKER

52 General

52.1	Overview	52.1.1	This section identifies the different requirements the Access Seeker must meet to undertake work on Telecom Sites - in particular in and around an exchange.
52.2	Requirements	52.2.1	The Access Seeker will need to undertake work on a Telecom Site in order to install, operate and maintain the Access Seeker Equipment. To undertake this work, the Access Seeker will need: <ul style="list-style-type: none"> (a) access (through either accreditation and security clearance or a Telecom escort); (b) Telecom's permission to undertake the work (a Permit to Work); and (c) to meet all of Telecom's work standards.
		52.2.2	These requirements are dealt with in detail in Parts 11, 12 and 13.
52.3	Work outside of a Footprint	52.3.1	All work on a Telecom site outside of the Access Seeker's Footprint must be undertaken by a Telecom representative on behalf of the Access Seeker.
		52.3.2	An Order for Telecom to undertake work must be made using OO&T. Details on placing Orders using OO&T are set out in the Telecom document "OO&T User Guide" (reference ASD-001).
52.4	Escorted access	52.4.1	A representative of the Access Seeker will require escorted access (i.e. to be accompanied by a Telecom representative) where: <ul style="list-style-type: none"> (a) the representative is not both accredited and the holder of a valid security access card; or (b) the representative requires access to parts of the exchange not included in the Access Seeker's unescorted right of access under the Co-location Terms (i.e. the representative requires additional access for the purpose of inspecting Access Seeker Equipment installed outside of a Footprint or accessing a Footprint that is close to Core Network that is not separated from the Co-location Service Area).
		52.4.2	An Access Seeker will not require escorted access from Telecom for a representative who does not hold a valid security access card and is not accredited, where an emergency affecting the Access Seeker's Footprint requires access for a period of less than one day provided: <ul style="list-style-type: none"> (a) the Access Seeker has requested escorted access from Telecom as soon as the Access Seeker becomes aware that such access is required and Telecom informs the Access Seeker that Telecom is unable to provide an escort, but is willing to allow the Access Seeker to provide the escort. Telecom must not unreasonably withhold its consent to the Access Seeker providing the escort;

- (b) the Access Seeker ensures that the representative is escorted by a second representative who holds a valid security access card and is accredited; and
- (c) the Access Seeker is responsible and liable for the actions of the unaccredited representative.

52.4.3 An Order for Telecom to supply an escort must be made using OO&T. Details on placing Orders using OO&T are set out in the Telecom document "OO&T User Guide" (reference ASD-001).

PART 11 - SECURITY AND ACCREDITATION

53 General

53.1	Overview	53.1.1	To access any secure Telecom Site (which includes all exchanges) a representative of the Access Seeker must have both accreditation and security clearance. Accreditation involves training and familiarisation with Telecom's procedures and work standards. A security clearance check may be required or performed by Telecom before access is granted to an accredited person.
		53.1.2	In addition, representatives of the Access Seeker that undertake work on a Telecom site must have appropriate work type accreditation/professional qualifications.

54 Accreditation

54.1	Overview	54.1.1	This section outlines the procedure for becoming accredited to access and work on Telecom sites.
54.2	PTTN procedure	54.2.1	The Telecom document "The PTTN Procedure" (reference ASD-4501) describes the requirements for accreditation in detail, which include:
		(a)	all persons engaged in any work on exchanges or other infrastructure comprising Telecom's Network must successfully complete the site accreditation training and examination before access to any secure Telecom Site Network will be granted;
		(b)	site accreditation must be maintained by annual refresher courses; and
		(c)	training records must be kept and made available to Telecom upon request.
54.3	Work type accreditation	54.3.1	All work that requires industry licensing or specific technical accreditation (e.g. electrical work and data cabling) must meet the appropriate standard and be done by someone with the appropriate qualifications. (On completion, all work must be certified by the person undertaking it as complying with all relevant standards.)
54.4	PTTN accreditation	54.4.1	Telecom will undertake PTTN accreditation training at three monthly intervals in Auckland, Wellington and Christchurch (subject to demand). Telecom will provide to the Access Seeker a training schedule detailing times and venues and trainer contact details.
		54.4.2	The training will comprise the following:
		(a)	the Telecom video "Protecting The Telecom Network";
		(b)	reference to the Telecom document "The PTTN Procedure" (reference ASD-4501);
		(c)	a MS PowerPoint presentation "Site Work PowerPoint Presentation"

(reference ASD-0042);

- (d) an open book test "PTTN Site Access Test Questions" (ASF-60); and
- (e) the attendance record "Training Register" (ASF-2).

54.4.3 Telecom will, at its discretion (to be exercised reasonably), accredit representatives of the Access Seeker based on each representative's participation and performance in the PTTN accreditation training.

54.4.4 To maintain accreditation, accredited representatives must attend a refresher PTTN training course every year.

55 Security clearance

55.1 Overview

55.1.1 Accredited representatives of the Access Seeker must apply for access to be granted to any relevant exchanges. Access is granted by Telecom issuing the representative with an access card.

55.1.2 Telecom may specify conditions on any persons right of access at the time it issues an access card. Such conditions may be amended subsequently at Telecom's discretion (to be exercised reasonably).

55.2 Access card security

55.2.1 Access to a site within the Telecom Network is controlled by swipe or proximity cards and PIN entry. Telecom utilises the Cardax access control system to control access to most medium and large buildings Telecom owns or occupies. Use of an access card is subject to the access card rules (set out in Appendix J).

55.2.2 Access will be limited to areas that are essential for an accredited representative of the Access Seeker to complete his or her work (i.e. access to and from the Co-location Service Area).

55.2.3 Unauthorised interference with any part of the Cardax system by a representative of the Access Seeker will result in access for that representative being removed permanently.

55.3 Card application

55.3.1 Applications for access cards are required in the following circumstances:

- (a) for all new, replacement and expired cards; and
- (b) for any amendments to the scope of access required.

55.3.2 Applications must be accompanied by evidence of accreditation (and, if relevant, annual refresher courses). Further, the accredited representative of the Access Seeker must:

- (a) complete the "Access Control Card Application Form" (reference ASF-59); and
- (b) provide a passport sized colour photo of the applicant with the applicant's name written on the back. (This image will be stored electronically for future use by Telecom's Security Operations Centre.)
- (c) submit the form and photo to Telecom to be processed. Approved cards will be provided to the address specified in the application

form.

55.4	Security clearance	55.4.1	Telecom may require the Access Seeker to provide a security check in relation to any accredited representative of the Access Seeker who applies for an access card. Telecom may reject any application based on a security check at its absolute discretion.
		55.4.2	Telecom may also conduct its own security check.
55.5	Costs	55.5.1	Telecom will provide an access card to every successful applicant under clause 55.3.2. Telecom may charge for each access card in accordance with the Co-location Price List.
		55.5.2	Telecom has guards at many exchanges and roving security patrols. Telecom may charge the Access Seeker in accordance with the Co-location Price List for any security callout required as a result of the acts or omissions of any accredited representative of the Access Seeker.
55.6	Card activation	55.6.1	A new access card must be activated before it can be used. This may be done by contacting Telecom's Security Operations Centre in the manner provided in the "Access Control Card Application Form" (reference ASF-59).
55.7	Card deactivation	55.7.1	Any card that is not used within three months of issue may be deactivated and removed from the system. Any card not used at all for six months will be deactivated and removed from the system.
55.8	Lost or damaged cards	55.8.1	Lost or damaged cards must be reported to a Telecom representative as soon as practicable.
55.9	Surrendering cards	55.9.1	The Access Seeker is responsible for returning any access card to Telecom immediately upon it no longer being required.
55.10	General	55.10.1	Telecom may audit and monitor access card use. Breaches of the access card rules may result in withdrawal of access and/or permanent withdrawal of access to any secure Telecom Site.
		55.10.2	At some exchanges closed circuit television may be installed to supervise general site security and to log events within particular areas of the exchange. Recorded images are monitored to improve general site security.

PART 12 - PERMIT TO WORK

56 Permit to Work

56.1	Overview	56.1.1	This section explains Telecom's Permit to Work procedure. A Permit to Work will be required for most work within the exchange beyond the day to day operation of the Access Seeker Equipment within the Access Seeker's Footprint. The purpose of the Permit to Work procedure is so that Telecom has prior notice of all significant activity on Telecom Sites and can respond appropriately in the event of an outage.
56.2	General	56.2.1	Telecom's Permit to Work team is responsible for ensuring that all work on Telecom Sites is visible so that risks to Telecom's Network can be controlled and mitigated.
56.3	Permit to Work procedure	56.3.1	The Permit to Work procedure is intended to minimise disruption by timing and enforcing standard work practices. It provides:
		(a)	a real time view of all planned work which poses a threat or service loss to Telecom's Network;
		(b)	contention checking to identify and eliminate conflict at Telecom sites;
		(c)	a check of work timing against specified requirements; and
		(d)	an interface with the network events notification procedure to provide End Users with notifications of planned work.
56.4	Permit to Work applications	56.4.1	Permit to Work applications are made online through the website http://www.telecom.co.nz/permits . (Note, this address may be subject to future changes.)
56.5	When to apply for a Permit to Work	56.5.1	A Permit to Work is required when:
		(a)	the Access Seeker carries out any Access Seeker Build at an exchange (including the installation of and any subsequent work on the Access Seeker Equipment);
		(b)	work creates a risk or loss of service to Telecom's Network (or a risk or loss of service to any equipment which supports Telecom's Network such as Building Services); and
		(c)	work is undertaken to Telecom's Network or Building Services infrastructure.
		56.5.2	(A Permit to Work is not required for the installation of and changes to cards in the Access Seeker Equipment.)
56.6	After hours Permit to Work	56.6.1	An after-hours Permit to Work is defined as one required after 5.00 pm and where the work is to take place before 8.00 am the next day. For processing and approval of after-hours Permits to Work contact Telecom on 0800-10-30-60, then follow the IVR prompts.

- 56.7 Service impacting faults and Permit to Work requirements**
- 56.7.1 In the event of a service impacting fault, permission may be given to commence work without a Permit to Work. In this situation the Access Seeker should call Telecom on 0800-10-30-60, then follow the IVR prompts.

PART 13 - WORK PROCEDURES

57 Work procedures

57.1 Overview	<p>57.1.1 The following rules apply for managing work on Telecom sites:</p> <ul style="list-style-type: none"> (a) all work must comply with the appropriate generally accepted best practice industry standards including any relevant Telecom standards; (b) all work must comply with the relevant Permit to Work; and (c) the Access Seeker must comply with the requirements of all relevant laws (including all consents and permits etc) prior to and during any work.
57.2 Work plan	<p>57.2.1 The Telecom document "The PTTN Procedure" (reference ASD-4501) describes the requirements for work plan development. To ensure all work procedures are robust and that all work proceeds with a structured risk management plan:</p> <ul style="list-style-type: none"> (a) the Access Seeker must develop a work plan that is fully compliant to the PTTN process before work starts; (b) the work plan must be approved by the Telecom field services contact; (c) the work plan must be available on site at all times during any work and must be used by the Access Seeker's accredited representatives; and (d) all work must comply with Permit to Work procedure. <p>57.2.2 Telecom's PTTN procedure requires a work plan for any work to be undertaken on a Telecom Site. The work plan must address the following points:</p> <ul style="list-style-type: none"> (a) the scope and purpose of the work; (b) the location of the work (building, floor and area); (c) the contact details of Telecom's and the Access Seeker's representatives; (d) the name and contact details of the person responsible for carrying out the work; (e) the duration of work (including dates if known); (f) a copy of the approved Permit to Work; (g) the number of people required, their trades, and accreditation requirements; (h) the name and services provided by any sub-contractor or third party;

- (i) the risks and hazards identified;
- (j) any parts of Telecom's Network requiring isolation and for how long;
- (k) the control and isolation points identified;
- (l) any storage requirements;
- (m) a dust management plan;
- (n) a waste management plan;
- (o) any work that produces spark or flame (hot work);
- (p) the tools and protective equipment required (e.g. power tools less than 1 kW, power tools greater than 1 kW, isolating transformers, vacuum cleaners, gas operated equipment, non combustible fire blankets, anti static dust sheets, fire extinguishers and sand bags); and
- (q) any specific access requirements.

57.3 Health and safety

57.3.1 All work must comply with the appropriate health and safety guidelines. The Access Seeker must make itself aware of and comply with all emergency and evacuation plans that apply to each exchange.

57.4 Working on Telecom sites

57.4.1 Where a secure Telecom Site employs a security guard, the Access Seeker must report to the security guard upon accessing and leaving.

57.4.2 Access on public holidays can be arranged by phoning Telecom's Security Operations Centre on 06-350-7051 or 0800-10-30-60, then following the IVR prompts.

57.4.3 Any Telecom supplied identification must be worn in accordance with the access card rules. Each accredited representative of the Access Seeker must also wear his or her own identification issued by the Access Seeker when entering an exchange. The identification must show the wearer's name, photo and the Access Seeker's name.

57.4.4 Cellular phones must be turned off in sign-posted areas and within 1 metre of telecommunications equipment.

57.4.5 The Access Seeker is responsible for the removal of rubbish and for cleaning and maintaining its equipment and the area around it.

57.5 Electric tools and appliances

57.5.1 Use of portable electrical equipment with a power rating of less than 1 kW is permitted in the vicinity of all telecommunications equipment. An isolating transformer must be used with 230 V equipment that is not clearly labelled as double insulated.

57.5.2 Electrical equipment with a power rating greater than 1 kW must not be used within 1 metre of any telecommunications equipment. 230 V equipment over 1 kW must not be plugged into an outlet on any telecommunications equipment frame, cabinet or rack. Only the outlets on a building's wall may be used. An isolating transformer must be used if the equipment is not insulated - RCDs do not provide the necessary earth isolation.

57.5.3 Where it is proposed to use electrical equipment with a power rating greater than 2 kW, the approval of a Telecom site manager must first be obtained. Any conditions for use attached to the approval must be strictly adhered to.

57.6 Static electricity

57.6.1 As telecommunications equipment is very sensitive to static electricity, extreme care must be taken when working in exchanges. Anti-static wrist straps and floor mats must be used at all times.

APPENDIX A - GLOSSARY

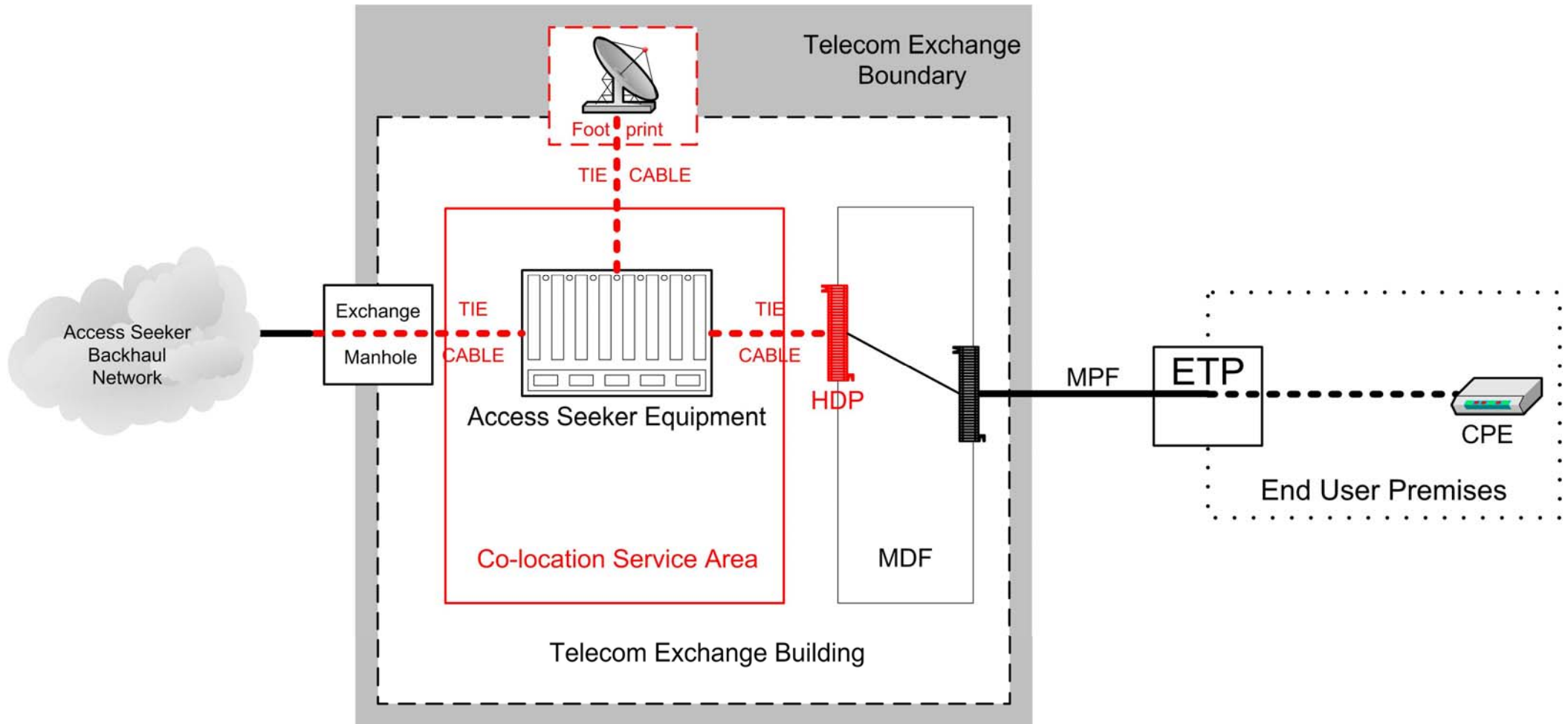
Term	Meaning
Access Seeker Build	Any Build undertaken by the Access Seeker for the purpose of installing, maintaining, repairing, altering, removing and/or replacing the Access Seeker Equipment.
Access Seeker Equipment	All equipment of the Access Seeker on a Telecom Site pursuant to the Co-location Terms.
Authority	Includes a government, statutory or regulatory authority.
Build	Works, repairs refurbishment, alterations or modifications, including temporary works (if any)..
Build Cost	The cost of a Telecom Build.
Build Time	The estimated number of Working Days for a Telecom Build to be completed from the date it commences.
Building Services	All of the ancillary services supplied by Telecom to the Access Seeker on an exchange in accordance with this Manual (including, air-conditioning, DC power, security, seismic bracing, earthing, cable trays and lighting).
Business Hours	8am to 5pm on any Working Day.
Certificate of Compliance	A certificate provided by the Access Seeker to Telecom under section 21.
Co-location Backhaul Tie Cable	A fibre tie cable running from the Access Seeker Equipment to either: <ul style="list-style-type: none"> (a) the Access Seeker's or a third party network fibre cable outside and adjacent to Telecom's exchange manhole; or (b) ancillary backhaul equipment installed within a Footprint on the exchange (for instance an external satellite dish).
Co-location Forecasts	The forecasts that the Access Seeker must provide to Telecom under clause 7.1.
Co-location Service Area	The space in a Telecom exchange within which Footprints in the exchange are supplied.
Core Network	Equipment used to provide a centralised service capability to multiple customers where no physical part of the equipment is dedicated to a single specific customer.
Escalation Protocol	The protocol set out in Appendix B.
exchange manhole	The congregation point for all ducts and cables that enter the exchange.
Fault Restoration Hours	means 7:00am to 7:00pm, seven days a week and Fault Restoration Hour means one hour within this period.
Firm Order	An Order placed by the Access Seeker which has become an enforceable obligation on Telecom to commence the Telecom Build and on the Access Seeker to pay the Build Cost, and includes the acceptance of a Quote by an Access Seeker.
Footprint	A space at any Telecom exchange that is allocated to the Access Seeker for the installation of its equipment but excludes any space occupied by the Access Seeker's tie cables.
Forecast	Any or all (as the context requires) of the Forecasts required to be provided by the Access Seeker in this Manual.
Full Site Audit	A detailed site audit provided under clause 12.3.

Term	Meaning
HDP	A handover distribution point on the Telecom exchange MDF.
Initial Site Audit	A site audit in accordance with Appendix F and provided under clause 12.2.
Intra-exchange Tie Cable	A copper pair tie cable running from the Access Seeker's HDP on the MDF to the Access Seeker's Footprint in the exchange.
MDF	A main distribution frame, being the place where copper lines from customers are laid out in an array to enable transmission equipment to be connected.
Metallic Path Facility (MPF)	A circuit comprising a pair of twisted copper conductors between a demarcation point at the End User's premises and an Exchange.
OO&T	Telecom's wholesale electronic online ordering and tracking system, as described in the OO&T User Guide and includes any upgrades, new version or replacement system.
Operational Date	The date on which the Access Seeker Equipment on a Footprint may be operationalised under clause 21.1.4.
Order	Any order made for any part of the Co-location Service.
Preliminary Order	An Order made in accordance with section 13.
PTTN	Protecting the Telecom Network.
quarter	A three month period commencing on the first Working Day of February, May, August and November respectively.
Quote	Telecom's response in accordance with section 16 to a Preliminary Order which, if accepted, constitutes a Firm Order.
RFS	Ready for service.
RFS Date	The date on which the Access Seeker Build can commence, as agreed under section 17.
Telecom Build	Any Build undertaken by Telecom for the purpose of supplying the Access Seeker with the Co-location Service.
Telecom Site	Any Exchange or other part of Telecom's Network as the context requires.
UCLL Service	The service supplied pursuant to the standard terms determination made by the Commission under section 30M of the Act in relation to Telecom's unbundled copper local loop service.

APPENDIX B - ESCALATION PROTOCOL

Escalation Rule	Further Explanation
1 Identify correct escalation path	Before any issue is escalated, sufficient investigation should be undertaken to ensure that the functional group that will most likely be responsible for resolving the issue has been correctly identified.
2 Attempt to resolve issues at BAU level before escalating them	Every effort should first be made to resolve an operational issue at the BAU level, i.e. direct communication between the originator and the recipient.
3 First escalation should be via email	In the first instance an escalation at BAU level should be sent by email with the email subject line beginning with "ESCALATION". The email should contain the relevant history of the issue, including the escalation history and when applicable the customer name, ASID/circuit numbers and fault/service order numbers.
4 Level one and two escalations shall be peer to peer	If an operational issue can not be resolved at the BAU level it must first be raised by the team member with his or her own team leader/manager. If the team leader/manager agrees that the issue warrants being escalated to the other party they shall contact his or her peer in the other organisation and endeavour to resolve the issue between them - this would normally be the level one escalation point. Under no circumstance should this step in the escalation path be bypassed unless every reasonable attempt to communicate with his or her peer in the other organisation has failed. Only then should the level one contact in party A attempt to escalate the issue to the level two contact in party B. Subject to the above, level two escalations should also be peer to peer.
5 A mutually agreed plan of action to resolve an issue shall not be interfered with by other individuals	If a plan of action to address an escalated issue has been agreed to by both parties then no other individual from either organisation should attempt to interfere with that agreement. If another individual has a concern with an already agreed plan of action they should raise it in the first instance with the person in his or her own organisation that was party to the original agreement.
6 People who do not follow the above rules will be redirected to the correct point of escalation	If, as part of an escalation, an individual is contacted by a person from the other party and it is discovered that the contacting person has not followed the protocol described above, then the person contacted can at his or her discretion respectfully redirect the contacting person to the correct point of escalation.

APPENDIX C - OVERVIEW OF THE CO-LOCATION SERVICE



APPENDIX D - FORECASTING SPREADSHEETS

Co-location Forecast

Forecast for 28th Month -1			Committed numbers - for 12 months												Estimated numbers for following 12 months					
			Year 1												Year 2					
			Quarter 1			Quarter 2			Quarter 3			Quarter 4			Quarter 1	Quarter 2	Quarter 3	Quarter 4		
LWC	Co-lo Day 0	Item	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12						
[LWC code]	[LWC RGS]	[Type of Footprint]																		
		Tie Cable Pairs																		
		No. of Tie cables/ No. of pairs per Cable																		
		Total No. of Pairs																		
		Fuse Rating																		
		No. of 16A																		
		No. of 32A																		
		No. of 48A																		
		No. of 63A																		
		Priority																		
		RGS																		
		Site audits by month																		
[Repeat as required for different LWC - just copy group of rows above and paste as this will keep the required information]																				
Notes																				
	Quarters are	February, May, August or November.							Fuse Rating	Enter fuse rating required for 50v DC power required for this LWC in the relevant month or quarter									Priority	Enter priority of this LWC vs. any other LWC in the same time period, leave blank if no contention
	Type of Footprint	Enter number of Footprint of this type required for this LWC in the relevant month or quarter							No. of 16A	Enter the number fuses of this size - Count Dual Feed as still one Fuse									RGS	Enter Requested Start Date for Access Seeker portion of Co-location build
	No. of Tie cables/ No. of pairs per Cable	If Known Enter number of Tie Cables with number of pairs per Cable required for this LWC in the relevant month or quarter							No. of 32A	Enter the number fuses of this size - Count Dual Feed as still one Fuse									Site audits	Enter required delivery date for Initial Site Audit information for this LWC in the relevant month
	Total No. of Pairs	Must enter Total number of Tie Pairs required for this LWC in the relevant month or quarter							No. of 48A	Enter the number fuses of this size - Count Dual Feed as still one Fuse										
									No. of 63A	Enter the number fuses of this size - Count Dual Feed as still one Fuse										

Co-location Priority List

Forecast submitted 28th of Month for next relevant quarter (February, May, August or November)							
Rank	LWC	Co-lo Day 0	Outstanding Firm Order				
1	[LWC code]	[LWC RQS]	[yes/no]				
2	[LWC code]	[LWC RQS]	[yes/no]				
3	[LWC code]	[LWC RQS]	[yes/no]				
4	[LWC code]	[LWC RQS]	[yes/no]				
5	[LWC code]	[LWC RQS]	[yes/no]				
6	[LWC code]	[LWC RQS]	[yes/no]				
7	[LWC code]	[LWC RQS]	[yes/no]				
8	[LWC code]	[LWC RQS]	[yes/no]				
9	[LWC code]	[LWC RQS]	[yes/no]				
10	[LWC code]	[LWC RQS]	[yes/no]				
11	[LWC code]	[LWC RQS]	[yes/no]				
12	[LWC code]	[LWC RQS]	[yes/no]				
13	[LWC code]	[LWC RQS]	[yes/no]				
14	[LWC code]	[LWC RQS]	[yes/no]				
15	[LWC code]	[LWC RQS]	[yes/no]				
[Repeat as required for different LWC - just copy a row above and paste as this will keep the drop down list]							

APPENDIX E - PRIORITISATION METHODOLOGY

1. The following list of exchange priorities are provided by Access Seeker 1, 2, 3 and 4:

AS1	AS2	AS3	AS4
MDY	ELL	GLF	MDY
GLF	MDY	TBY	BSY
ELL	BSY	MDY	DA
		BSY	GLF

2. Allocate a score to each exchange on each Access Seeker's list. The score for the highest priority on each Access Seeker's list is '4' where '4' is equal to the number of exchanges on the longest list. The score for the second highest priority on each Access Seeker's list is '3' etc. A score is allocated to all exchanges on all Access Seekers' lists even if there are not 'n' items on a list.

AS1		AS2		AS3		AS4	
MDY	4	ELL	4	GLF	4	MDY	4
GLF	3	MDY	3	TBY	3	BSY	3
ELL	2	BSY	2	MDY	2	DA	2
				BSY	1	GLF	1

3. The scores for each exchange are totalled and the exchanges placed in order of descending score. If two or more exchanges receive the same score they are placed in alphabetical order (BSY and ELL). The resulting list is the priority order.

MDY	4 + 3 + 2 + 4	13
GLF	3 + 4 + 1	8
BSY	2 + 3 + 1	6
ELL	2 + 4	6
TBY	3	3
DA	2	2

APPENDIX F - INITIAL SITE AUDIT

FORM

Co-location Service Initial Site Audit

1. SITE DESCRIPTION

Exchange name	
Location	
<ul style="list-style-type: none"> Physical address 	
General description	
<ul style="list-style-type: none"> Describe the site and condition of the exchange 	

2. CO-LOCATION SERVICE CAPACITY

Requirements to be provided by Access Seeker	
<ul style="list-style-type: none"> Footprint (size and layout) 	
<ul style="list-style-type: none"> Thermal load 	
<ul style="list-style-type: none"> Power load 	
<ul style="list-style-type: none"> Terminations (copper, fibre) 	
<ul style="list-style-type: none"> Timing 	
<ul style="list-style-type: none"> Service type 	
<ul style="list-style-type: none"> Capacity forecasts 	

3. CO-LOCATION SERVICE AREA ASSESSMENT

Space (see note 1)	
<ul style="list-style-type: none"> Describe where the Co-location Service Area is within the site 	
<ul style="list-style-type: none"> Type of space available (co-mingled Footprints, co-mingled rows, roomed, caged or remote) and reasons for that type 	
<ul style="list-style-type: none"> Amount of space available (in Footprint units) 	
<ul style="list-style-type: none"> Comment on other issues (e.g. is any space allocated as reserved) 	

Common Services	
<ul style="list-style-type: none"> • HVAC <ul style="list-style-type: none"> - Number of Footprints with - No. of Footprints without - Lead time to provide HVAC where not present 	
<ul style="list-style-type: none"> • Seismic framing <ul style="list-style-type: none"> - Number of Footprints with - Number of Footprints without - Lead time to provide seismic framing where not present 	
<ul style="list-style-type: none"> • DC power <ul style="list-style-type: none"> - Number of Footprints with - Number of Footprints without - Lead time to provide DC power where not present 	
<ul style="list-style-type: none"> • Comment on other issues (e.g. capacity expiry) 	

HDP	
<ul style="list-style-type: none"> • Space on the MDF for terminating 100 pair blocks 	
<ul style="list-style-type: none"> • Cable distance from the Co-location Service Area to MDF • Is/can a cable route be established. If not why? 	
<ul style="list-style-type: none"> • Comment on other issues 	

Check List of Readiness	
<ul style="list-style-type: none"> • Would this Co-location Service Area have cost implications? 	
<ul style="list-style-type: none"> • Would this Co-location Service Area have timing implications? 	
<ul style="list-style-type: none"> • Would this Co-location Service Area have access issues? 	

(Add separate assessments for each separate Co-location Service Area within the site as applicable.)

5. SIGN OFF

Assessment Completed By:	Date	Signature

Notes

1. Co-location Service Area: There may be a choice of areas within an exchange where Footprints may be allocated. A separate assessment of each area is required.

APPENDIX G - TELECOM'S CO-SITING FORM

- Information required**
1. Any Preliminary Order for the Co-location Service in relation to a Footprint on an exchange must include the following information:
 - the type, model and manufacturer of the proposed antenna system, including proposed method of fixing (i.e. mast, tower, building);
 - the intended service, operating frequency, bandwidth, power level and mode of modulation;
 - a diagram defining areas of radio frequency exposure at the general public level as described in NZ Standard 2772.1: 1999;
 - rack or cabinet requirements;
 - power requirements including earthing arrangement; and
 - existing air conditioning/ventilation requirements.
 2. Telecom will not be able to issue a Quote unless all relevant information is provided. Telecom may request any missing information before issuing a Quote.

APPENDIX H - TELECOM'S CURRENT TIER 0, 1, 2 EXCHANGES

- (a) Caro St
- (b) Christchurch
- (c) Cromwell
- (d) Dunedin
- (e) Glenfield
- (f) Greymouth
- (g) Henderson
- (h) Howick
- (i) Invercargill
- (j) Kerikeri
- (k) Levin
- (l) Mayoral Drive
- (m) Mount Albert
- (n) Naenae
- (o) Napier
- (p) Nelson
- (q) New Plymouth
- (r) Palmerston North
- (s) Papakura
- (t) Papatoetoe
- (u) Porirua
- (v) Remuera
- (w) Riccarton
- (x) Rotorua
- (y) Tauranga
- (z) Timaru
- (aa) Torbay
- (bb) Wellington
- (cc) Whangarei

APPENDIX I - CERTIFICATE OF COMPLIANCE

ACCESS SEEKER CERTIFICATE OF COMPLIANCE



WORKS TITLE: Project Name

Access Seeker Details

Works Manager: name	Project ID Number:
Contact Number	Other (add as required):

Milestone Dates

Rqd	Actual	Record
<input checked="" type="checkbox"/>	dd/mm/yy	Footprint Accepted
<input checked="" type="checkbox"/>	dd/mm/yy	Build Commencement
<input checked="" type="checkbox"/>		

Rqd	Actual	Record
<input checked="" type="checkbox"/>	dd/mm/yy	Build Completion
<input checked="" type="checkbox"/>		

Records

Rqd	Actnd	Record
<input type="checkbox"/>	<input type="checkbox"/>	Floor Layout
<input type="checkbox"/>	<input type="checkbox"/>	Access Seeker Cable Routes – Internal plan
<input type="checkbox"/>	<input type="checkbox"/>	Access Seeker Cable Routes – External plan
<input type="checkbox"/>	<input type="checkbox"/>	Fire Stops Reinstated
<input type="checkbox"/>	<input type="checkbox"/>	Relevant Compliance Certificates
<input type="checkbox"/>	<input type="checkbox"/>	Producer Statement for seismic design
<input type="checkbox"/>	<input type="checkbox"/>	Battery Labelling
<input type="checkbox"/>	<input type="checkbox"/>	Laser Safety Signage to Optical
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	

Database Updates

<input type="checkbox"/>	<input type="checkbox"/>	Site Code/Site Alarms
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	

Proactivity & Health & Safety

Rqd	Actnd	Detail
<input checked="" type="checkbox"/>	<input type="checkbox"/>	PTTN Site Access Accreditation confirmed
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Access Cards provided
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Work Plan approved for use
<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Equipment Relinquishments &/or Site Decommissioning

Rqd	Actnd	Detail
<input type="checkbox"/>	<input type="checkbox"/>	Detail of any equipment removed from a site

Handover

Access Seeker Certificate of Completion to Telecom		
Approved to handover:	<i>(Access Seeker authorised to approve)</i>	<i>Date</i>
<p>The person signing this form certifies that:</p> <p>(a) He or she is an authorised representative of the Access Seeker,</p> <p>(b) The information provided with this certificate is accurate, and</p> <p>(c) The work undertaken on behalf of the Access Seeker complies with (where relevant):</p> <ul style="list-style-type: none"> • The design, configuration and equipment details advised to Telecom as part of the Access Seeker's Preliminary Order. • Any PTW approved in respect of the work. • All of the Access Seeker's obligations under the Co-location Terms. 		

APPENDIX J - ACCESS CARD RULES

The use of a Telecom access card is subject to the following terms:

- (a) You must wear your identification card where it can be seen clearly.
- (b) Identification cards must be shown on request to any identified Telecom representative.
- (c) Never reveal your access card PIN to anyone other than staff at the Telecom's Security Operations Centre (**SOC**) in order to verify yourself as the card holder.
- (d) Ensure external doors that lock on closure do so before leaving the area.
- (e) Do not permit unauthorised people to gain entry through any Cardax controlled door or gate.
- (f) Challenge any person that you witness tailgating (i.e. following in behind a legitimate access card holder). Also challenge non-card holders entering through vehicular access doors and gates to building basement car park areas.
- (g) Where exit card readers are fitted, swipe your card when exiting. Failing to do so may result in further access to the site being denied.
- (h) You are responsible for notifying the appropriate manager of your card's expiry one calendar month prior to it expiring to ensure continuity of access.
- (i) Be alert and report suspicious items and unauthorised or suspicious activity to your manager.
- (j) Report any security weaknesses, or any failure to follow correct security procedures, to your manager.
- (k) Possession of an access card giving legitimate access to a specific area does not grant the right to be in any other area.
- (l) Legitimate access to a specific site or area does not grant the right to take unauthorised visitors into that or any other Telecom area.
- (m) Immediately report the loss of your access card to the SOC on 0800-103-060, then follow IVR prompts.
- (n) Access cards may not be loaned to any person.
- (o) Access cards remain the property of Telecom and must be returned to Telecom on request.
- (p) Access cards are not valid if they have expired (expiry dates are printed on the card).
- (q) Access cards may not be copied or defaced in any way.

APPENDIX K – TECHNICAL DOCUMENTS

List of Technical Documents Referred to in UCLL and Co-location Standard Terms:

ASD-002 Tie Cable Specification

ASD-0033 Transmission Station Earthing Connections

ASD-0042 PTTN Training Presentation

ASD-0137 Specification for Telecommunications equipment seismic frames

ASD-0335 Earthing Systems for Telecom Sites

ASD-0459 Network Naming Standard For LLU Requirements

ASD-2856 Seismic Protection Standards Manual Part Two

ASD-4501 PTTN-Site Work

ASD-6314 Telecom Site Access & Security Manual

ASD-7386 Gas Safety

ASD-8213 Separations Between Telecom Plant & Power Network Earthing Systems

Hazard Control Plans Name

HCP-001 Secondary Cells - Acid Burns

HCP-002 Secondary Cells - Explosion

HCP-003 Car parks, Foyers and Entrances

HCP-004 Windows and Window Ledges

HCP-005 Passage Ways and Stairs

HCP-006 Kitchen and Toilet Areas

HCP-010 Cables Across Floors / Walkways

HCP-011 Stored Unmarked Containers

HCP-012 Walls and Doors

HCP-015 Secondary Cells - Exposed Terminals

HCP-020 Electric Shock From Telecommunication Circuits (Startle Effect)

HCP-023 Gas Soldering Irons

HCP-026 Drilling

HCP-029 Violence in the Workplace

HCP-031 Confined Spaces

HCP-036 Sealed Batteries in Cabinets, Manholes or Confined Spaces - Explosion

HCP-038 Noise

HCP-041 Smoking

HCP-043 Extra Low Voltage Bus Bars -Exposed Live Metal

HCP-044 Ladders

HCP-046 Lifting

HCP-047 Local Utilities - Power

HCP-055 Manholes

HCP-065 Burning Circuit Board Cards

HCP-070 Mains Powered Electrical Appliances

HCP-080 Soldering

HCP-084 Operation of Tools / Plant

HCP-097 Optical Fibre

HCP-099 Radio Frequency Exposure

Telecom Video Name

ASV-PTTN PTTN Site Access Possum Bourne Video

Telecom Technical

Forms Name

ASF-001 Certificate of Compliance (CoC)

ASF-002 PTTN Site Access Training Register

ASF-003 Initial Site Audit

ASF-004 UCLL Billing Query Form

ASF-059 Site Access Card Application

ASF-060 PTTN Site Access Test