



Infrastructure Services & Wholesale Group
Global Connect - Contracts

Specification

TM00151

TEBA Product Deployment

Technical Requirements

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1. PURPOSE

The purpose of this Specification is to provide a Carrier and their Telstra Approved Contractor with detailed Technical Requirements, which must be followed, unless otherwise directed by the FA&T Coordinator, when performing Design and Construction work in a TEBA area.

2. SCOPE

This Specification applies to the design, installation and commissioning of, Equipment Superstructure and other supporting auxiliary items/tools in TEBA areas.

In addition to the Specifications and Procedures detailed in this document, the Carrier and their Telstra Approved Contractor should refer to the Telstra Wholesale TEBA webpage. Refer to the following URL:

http://www.telstrawholesale.com.au/products/fixed_interconnect_access.htm?sub=teba

This Webpage contains:

- i) an overview of the TEBA Ordering and Provisioning processes;
- ii) TEBA Orders Forms/Templates, including:
 - a. a TEBA Preliminary Study Request form;
 - b. a TEBA Order and Design and Construction Proposal template; and
 - c. a TEBA Joint Completion Inspection Request form.
- iii) Physical Access Procedures and Forms;
- iv) List of Telstra Approved Contractors; and
- v) Copies of the main TEBA Technical Specifications and Procedures.

3. OVERVIEW

The Technical Requirements set out in this Specification are listed below:

- Site Preliminaries
- Preparation of Design and Construction Proposal
- Design
- Recovery
- Installation Work
- Commissioning/Acceptance

Attachments:

- Attachment 1 Material List
- Attachment 2 Rack Labelling Template
- Attachment 3 TEBA Joint Inspection Checklist

4. CONTRACTOR RESPONSIBILITY WHEN ESTABLISHING A NEW TEBA AREA

Where the scope of the Contractor's Construction Activities includes the creation of a new TEBA area, or the extension of an existing TEBA area, the Contractor is responsible for the processes as described in 4.1 below as part of the Design and Construction Proposal preparation.

4.1. Notification to Transfield Facility Manager

Prior to the submission of a Design and Construction Proposal the contractor shall, notify the appropriate Transfield Facility Manager via the processes described in the document "Procedure 013731: Working in Network Sites (WINS)".

The Contractor can obtain the contact details of the appropriate Transfield Facility Manager by contacting the Telstra Nominated Technical Contact Point supplied in the TEBA Preliminary Study response (the Telstra Nominated Technical Contact Point is usually the Facilities Access and Telepower (FA&T) Co-ordinator for that region). The notification above should be submitted after the contractor has clarified the location of the TEBA area to be developed or extended, with the Telstra Nominated Technical Contact Point.

The Contractor must discuss the extent of works to be performed with the Facility Manager and any other relevant stakeholders, either at the site or at a location suitable to all parties, prior to preparing the Design and Construction Proposal ensuring as a minimum the following details are provided and developed:

The Contractor shall provide a separate Method of Procedure (MOP) to the Transfield Facility Manager for any work, which alters the existing "building infrastructure"

The MOP document shall clearly define:

- The scope of a specific task (what, when, how, when & duration of works)
- Roles and responsibility (who & contact details)
- Details of any hazards or risks, which may affect network integrity, site, plant or staff and detail about how the hazards/risks will be managed, within the area of the site or the services affected by the works.
- Fall back procedures or contingency plans.
- Installation methods, procedures & tools.

The MOP shall ensure that any contractors, sub contractors and other relevant parties have their obligations associated with the MOP clearly defined. Job Safety Analysis Forms (JSAs) are developed for the activity.

When the contractor submits the Design and Construction Proposal to Telstra for approval, the contractor shall supply evidence that the Transfield Facility Manager has accessed the works and approved the implementation of them.

5. ASBESTOS AND PCBS

5.1. Finding Asbestos

5.1.1. RISK ASSESSMENT

When Asbestos is believed to be present, the Contractor shall immediately contact the respective Facility/Property Manager. If the suspect material is not listed on the PRMD (Asbestos) Module, Facility/Property Managers must arrange for the material to be sampled and a risk assessment performed.

If the premises has not been assessed, consideration should be given to surveying the whole premises (in accordance with Procedure 004 450) rather than simply analysing the suspect material.

When the contractor submits a Design and Construction Proposal to Telstra for approval, the contractor shall supply evidence that the Transfield Facility Manager has accessed the works and approved the implementation of them.

5.1.2. OCCURRENCE OF ASBESTOS

Asbestos containing sprayed insulation materials may be encountered throughout buildings and other structures, especially those built from the 1950s to late 1970s. The more common **Non-Friable** asbestos building material and materials still found in buildings include, but not limited to:

- vinyl tiles;
- laboratory table tops;
- roofing membranes/felts;
- suspended ceiling tiles;
- Asbestos cement sheeting.

The above mentioned asbestos building materials do not present a significant health risk unless they are tooled, cut, sanded, abraded or machined (particularly at high speeds) so as to release asbestos dust.

The more common **Friable** asbestos building material and materials still found in buildings include, but not limited to:

- fire rating sprayed or plastered onto ceiling, walls or structural beams;
- pipe lagging;
- fire stop material (fire doors, mastic's);
- insulating boards;
- gaskets (diesel, boiler);
- zelemite panels (compressed asbestos tar boards) in electrical switchboards;

- High temperature cable casing.

5.2. Removal and Disposal of PCBs

This Policy applies to electrical equipment manufactured prior to 1980 that may contain PCBs (Nominated Equipment). "Nominated equipment" may include the following:

- Capacitors in Relay Sets;
- Capacitors in fluorescent light fittings;
- Capacitor starters for electric motors in printers and dishwashers; and
- Other items identified by electrical contractors.

When the construction activities proposed to be undertaken in association with the TEBA Design and Construction Proposal includes work on "nominated equipment", the Contractor shall:

- Determine if the "nominated equipment" contains PCBs as per clause. 4.6.1 of Publication 003 718;
- Remove PCB containing components if practicable, before commencing work that presents a risk of exposure or spills as per clause. 4.6.3 and 4.6.5 of Telstra Publication 003 718;
- Where "nominated equipment" contains PCBs, ensure that a storage container is available to store electrical components or equipment containing PCBs as per clause. 4.6.6 of Publication 003 718;
- Store "nominated equipment" or components containing PCBs in storage containers as per clause. 4.6.6 of Publication 003 718;
- Arrange for the transportation and disposal of "nominated equipment" and/or components containing PCBs as follows:
 - in New South Wales where the total quantity of PCBs in the storage container(s) exceeds 50 kg (as per the NSW PCB Chemical Control Order); or
 - in all other States/Territories, when the storage containers are full:
- Ensure that transportation of PCBs is as per clause. 4.6.7 of Publication 003 718;
- Ensure that disposal of PCBs is as per clause. 4.6.8 Telstra Publication 003 718; and
- ensure that where PCBs are taken away for disposal, that the following documentary evidence is recorded and retained in project files;
 - the quantity of "nominated equipment"/PCBs taken from the property;
 - that transportation of the "nominated equipment"/PCBs was carried out by authorised contractors; and
- Receipt of the "nominated equipment"/PCBs by the authorised disposal site(s).

6. SPECIFICATIONS

6.1. Site Preliminaries

In preparing the TEBA Design and Construction Proposal, the Contractor must consult with the Telstra Nominated Technical Contact Point to determine the TEBA location, size (of a new TEBA area to be established), allocation for carrier racks, and allocation of MDF/DDF blocks (where applicable).

6.1.1. SITE ESTABLISHMENT

The following points need to be considered and included within the scope of a TEBA Design and Construction Proposal when establishing or extending a TEBA area:

- Staff personnel accommodation, facilities and interrelationships in accordance with OH&S guidelines.
- Recovery of decommissioned equipment.
- Recovery of Superstructure.
- Removal of Asbestos & PCBs.
- Building work
 - Walls (building or demolishing).
 - Cable access ways.
- Floor Layout
- Floor Loading for standard and raised floors.
- Floor Repair.
- Ceiling heights and physical constraints of the area.
- Overhead Obstructions.
- Fire sprinkler system in accordance with state fire regulations.
- Air Conditioning.
- AC power distribution (for Rectifiers, Lights and Power Pendants only).
- DC power distribution.
- Lighting and AC pendants.
- DDF location and space.
- MDF location and space.
- Cable Runways
 - External Fibre.
 - Power.
 - Signal cable (to MDF and DDF).
- Optic Pigtail Duct.
- Delivery access.
- Ability to receive equipment (mechanical aids, etc available).
- Equipment Access to TEBA area.
- Equipment storage.

6.1.2. SITE ACCESS AND MANAGEMENT

6.1.2.1. Identification & Security/Access Requirements

The Site Access procedures that contractors working on behalf of a carrier must follow prior to entering a Telstra premises are described on the Telstra Wholesale TEBA webpage under “TEBA Physical Access Procedures”. Refer to the following URL:

http://www.telstrawholesale.com.au/products/fixed_interconnect_access.htm?sub=teba

To summarise, the carrier must apply for access cards (EACS Cards) and/or keys in advance of its contractors accessing a Telstra site. It is recommended that carriers request these cards/keys at least 3-4 weeks prior to requiring access to a Telstra site.

Once the carrier obtains the cards/keys, they may be retained by the carrier whilst the carrier continues to house equipment in a TEBA area. The cards/keys may be used to access multiple sites for the carrier’s installation or operational staff/contractors (subject to the submission of a Site Attendance Request Form prior to attending a site on each occasion).

When attending a Telstra Facility, carrier personnel and their contractors must have sufficient photographic identification to prove their identity and a copy of the relevant authorised Site Attendance Request form which gives carrier personnel and their contractors permission to be in attendance at the Telstra Facility.

6.1.3. SITE DEMOBILISATION

Upon Completion of a Project, the Contractor is responsible for clean up, excess material removal, restoration of alarm status and security.

6.2. Preparation of Design and Construction Proposal

6.2.1. OBTAINING CN1234 DRAWINGS

The Technical Specification for overhead iron work, superstructure, troughing and supporting infrastructure is referred to as the CN1234 drawings. The CN1234 drawings can be obtained for a fee from:

COMPUCADD

Address: 60 Barry St, Carlton, Vic 3053

Ph: 03 9348 2666

Fax: 03 9348 2600

6.2.2. RECOVERY

If required, recovery of redundant equipment may be necessary prior to building the new TEBA area.

Points to consider when removing redundant equipment are:

- Equipment – Is the existing Equipment Decommissioned? Depowered?
Is the existing cabling required to be removed?
Does existing cabling that is to remain, require support?
- Superstructure – Is existing superstructure up to CN1234 Standard?
Are the existing H Frames adequate? More Required?
Is existing troughing adequate? Required to be moved?
Removed?
- Building - Is Floor, Ceiling or Wall Repair required?
Does any Electrical Fixture require Removal? Relocation?
- Removal - Reuse / Recycle / Dump?
Does Telstra have a contract to cover disposal of Plant or Equipment? (Contact FA&T Coordinator, if required)
Ensure EMS compliance?
Ensure PCB and Asbestos removal is done using the correct safety procedures?

6.2.3. FLOOR LOADING

When the TEBA is to be installed in the Exchange Equipment Area, the loading can be deemed to be 1000Kg/m².

If the TEBA is to be installed in any other area in the Exchange Building (non-equipment areas may have lower strength), the contractor is required to obtain Engineering Certification as to the floor's load-bearing capability (minimum requirement of 600Kg/m²).

If the floor does not meet this requirement, the contractor is to include details of all necessary activities to improve the loading capacity of the floor to the required standard in the TEBA Design and Construction Proposal.

6.2.4. LAYOUT OF THE TEBA AREA

A number of factors need to be considered in terms of the floor layout for the TEBA Area:

- Floor Requirements
- Floor Dimensioning
- Suite Layout

The following section provides the guidelines for TEBA suite dimensioning and rack/suite layouts.

6.2.4.1. TEBA Superstructure Standards (CN1234)

- The standard distance between Suite centres is 1820mm. (Raised floors may require up to 2m spacing to align with floor tiles. For approval, to changes to standard refer to FA&T Coordinator).
- The standard TEBA rack reservation (maximum footprint) is 600mm (W) x 900mm (D) x 2200mm (H).
- The standard height for TEBA Superstructure is low mechanics (2400mm). If the majority of the exchange superstructure is high mechanics and the TEBA area is only a small area in that exchange, then the TEBA height should be set to high mechanics (2887mm). If high mechanics is to be used approval must be obtained from FA&T Coordinator.
- The maximum height of the rack should not exceed 2000mm. A rack height of up to 2300mm may be permitted where such a height can be accommodated without causing operational difficulties. When installed under high mechanics, rack extension brackets are required.
- Racks should have doors fitted so equipment is fully enclosed. The installation of open frames to mount equipment in a TEBA area, without the use of a rack, panels and/or doors to enclose the equipment is not permitted.
- The carrier may choose to fit lockable doors and door alarms to its TEBA racks. The carrier is responsible for the security of its equipment in a TEBA area.
- Refer to Fig 1, “TEBA Suite Dimensioning”, and Table 1, “TEBA Suite Dimension”, for TEBA Suite Dimensioning and measurements.
- Safety Rail is to be installed when the area above the superstructure is exposed to open space. Rail is mounted near edge of superstructure.

- When practical, Safety Ladder is to be installed in location that doesn't interfere with suites and equipment extensions. Used to provide easy and safe access to area above superstructure. Confirm with FA&T Coordinator.
- The SPC Bar is normally within the DP1B. But due to the amount of connectivity required to the SPC it is generally extended out from this point and mounted either on, but isolated from, the Superstructure above it or on a wall near it. For additional information about Power and Earthing, refer to Specification 007 338 C8-6, "Power and Earthing Requirements for TEBA Equipment Areas".
- Racks must be isolated from superstructure and all other carrier's racks. Adjacent Racks for the same carrier do not require isolation from each other, but will be isolated from anything else.
Isolation methods: An air gap of at least 5mm is the preferred method for standard TEBA racks. For installation of racks with 240V inverters the air gap should be at least 50mm, refer to sect. 5.2.10.1, "AC Power". "Insulation, Pyrolam" sheet (Serial/Item 353/626, 50 yard roll x 36 inch) may be trimmed and glued to rack using 'Selleys Gel Grip Glue'. Use Pyrolam and glue sparingly.
Rack bracket insulating kits: "Block, Insulating U-shaped Superstructure", available from EC Menzies, 19 Ewing St, Brunswick, Vic, 3056, Ph 03 9387 554 (2 per joint, used with U-bolts); "Kit, Insulation, Type 92 Superstructure", available from Breseight, serial 353/ 555)

Measurement	Distance
TEBA Suite centres (centre of suite to centre of adjacent suite)	1820mm
Aisle widths (normal)	920mm
Aisle widths (raised floor, with tiles)	FA&T Coord
Rear aisle width (suite at rear of equipment room to rear wall)	1100mm
Top iron widths (outside to outside)	600mm
Tie bar (Wall (top iron wall bar) to outside tie bar)	1000mm
Tie bar (outside to outside)	1200mm
Vertical support frame separation (H frames)	1210mm
DDF vertical side aisle width	1200mm

Table 1 TEBA Suite Dimensions

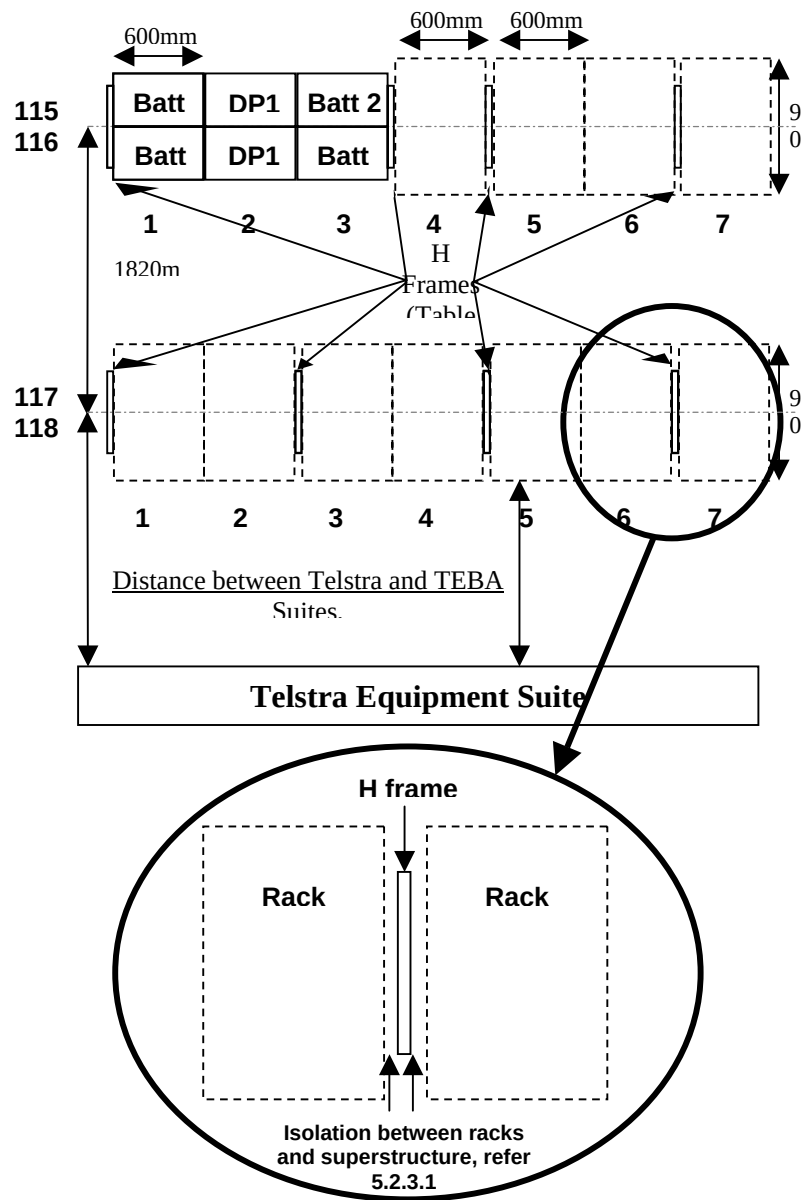


Fig 1 **TEBA Suite Dimensioning**

6.2.5. CABLING

6.2.5.1. Internal TEBA Cable Runways

Within the TEBA area Separate Runways are required for DC Power, External Optic Fibre, Optic Fibre Pigtails, and Signalling. These mediums are to be shared by carriers for common usage, linking all TEBA area suites and racks.

The TEBA Suites differ from the standard detailed in Drawings CN-1234, Sheet 28, by adding another 300mm tray, attached to the cantilever bracket for external fibre. Also, a 100mm optic fibre pigtail duct is added, with enough clearance (150mm) below the power tray to permit the duct lid to open (refer to Photo 1 & Fig 4).

The two trays & the pigtail troughing running along the suites are to be connected between suites, preferably at suite ends.

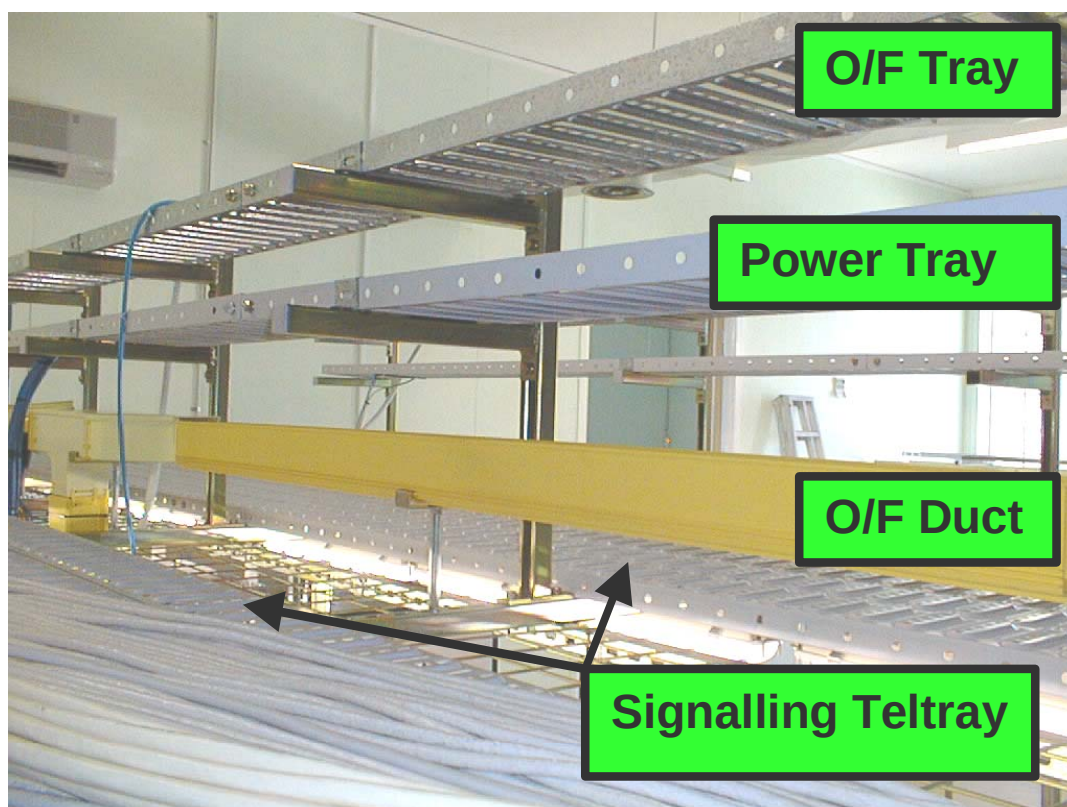


Photo 1 Internal TEBA Cable Runways

6.2.5.2. Signalling Cable

Signalling Cable is run on the Teltray, also known as Planar Shelf (between adjacent suites and along suite ends) installed directly on top of the TEBA Superstructure above the suite aisles and on the external Runway from the TEBA area to either the DDF or MDF as illustrated in Photos 1, 2 & 3.

For cable tray dimensions, refer to illustration in Figure 4

NOTE: The installation of signaling cabling from the carrier's rack to the Main Distribution Frame (MDF) for the purposes of interfacing to ULL (ie: **Interconnection Cables**) is specified in the document

Unconditioned Local Loop – Internal Interconnection Cables (available from the Telstra Wholesale TEBA webpage – refer to URL:

http://www.telstrawholesale.com.au/products/fixed_interconnect_access.htm?sub=teba).

NOTE: The installation of Tie Cables from the carrier's TEBA rack to the exchange 2Mb Digital Distribution Frame (DDF) is specified in the document: *TEBA: Installation of POI-DDF Tie Cables* (available from the Telstra Wholesale TEBA webpage – refer to URL:

http://www.telstrawholesale.com.au/products/fixed_interconnect_access.htm?sub=teba

The Carrier will specify in the TEBA Design and Construction Proposal the destination of signalling cables and the cable type to be used.



Photo 2 Signal Cable on the Teltray Planar Shelf

6.2.5.3. External TEBA Cable Runways

External to the TEBA area, Cable Runways may be required to be run to DC Power & Earth sources, to the Cable tunnel, to OFDPs, to the MDF, and the exchange 2Mb DDF. Ensure that the planned Cable Runway is adequate for the capacity planned for the TEBA area.

The following are guidelines for external cable runway sizes:

- i)** TEBA to MDF for signal cabling (ie: ULL Interconnection Cables): CBD Sites 900mm width; Metropolitan and major country : 600mm width or dual 300mm tray.
- ii)** TEBA to MDF/Cable Chamber for External Fibre Cables (separate from signal cabling runway to MDF): 300mm width.
- iii)** TEBA to Exchange Transmission area for Fibre Tie Cables: 300mm width.
- iv)** TEBA to DDF for signalling cabling (ie: Transmission or switchport interconnection cables): 300 mm width.

The location and positioning of any external cable tray or riser should be determined in conjunction with the appropriate Telstra Area Planner via the FA&T co-ordinator.

If an opening through a wall is required, the Contractor must ensure that the fire integrity of the wall is maintained (see below). The use of “Fire Pillows” (aka Plugs) is one accepted method of prevention. A Fire protection Consultant may advise the preferred method.

Mention of fire proofing materials and methods are in TM00182 A01 “Main Distribution Frames QM MDF”, clause 4.5.5 Fire Stopping:

“Any Building element providing resistance to spread of flame or providing fire separation and compartmentation within a building must have its performance maintained when penetrations are made for building or equipment services in accordance with the Building Code of Australia.”



Photo 3 External TEBA Cable Runways

6.2.5.4. Structural Certification

Any cable runways or superstructures not covered by the CN drawings require a structural engineer to approve the cable runways, superstructure designs and fabricated structures. A copy of the certification is required as part of the “TEBA Design and Construction Proposal” to be submitted to Telstra for approval.

6.2.5.5. Connection between Internal to External TEBA Cable Runways

The TEBA area and the Exchange area must be isolated from one another (treated as separate IBNs - Isolated Bonding Networks). The runways may be on the same level or may require ramping to achieve a connection. Refer to CN1234, Sheet 16, for insulation type to utilise.

The connection may either be supported by other superstructure, braced on wall or suspended from the ceiling. Examples of the ceiling support method are Fig 5a and Fig 5b. The method for wall support is displayed in Fig 5c.

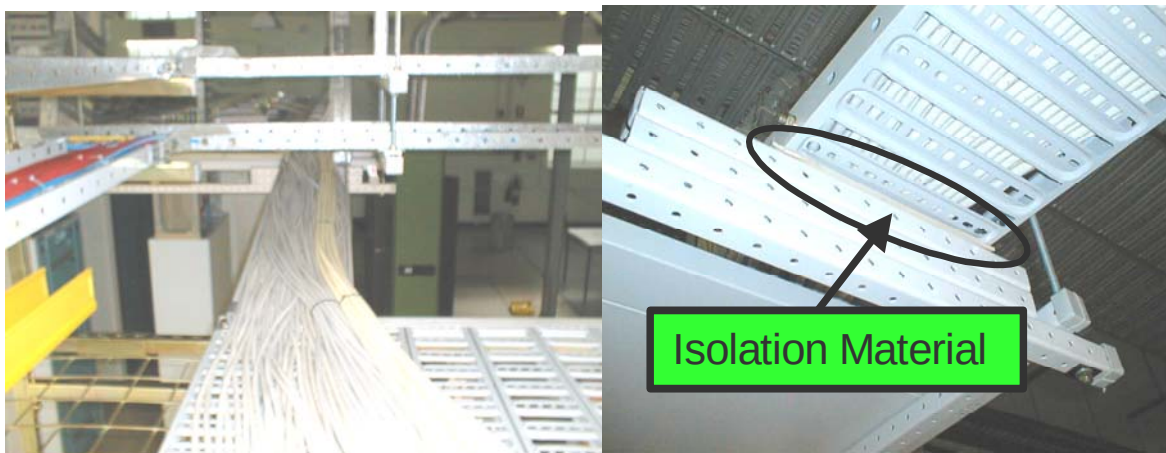


Photo 4 Connection to other Runways

6.2.6. OPTIC FIBRE PIGTAIL DUCTING

In TEBA areas, Optical Fibre Pigtail Duct is installed along the suites and connected between suites, preferably at suite ends (to provide diversity, if required). The duct may extend to ducting in the Transmission Area of the Exchange, if directed by Telstra.

Refer to Fig 4, “Internal TEBA Cable Runways” for positioning of duct.

Refer to Attachment 1, “Materials List”, for material requirements.

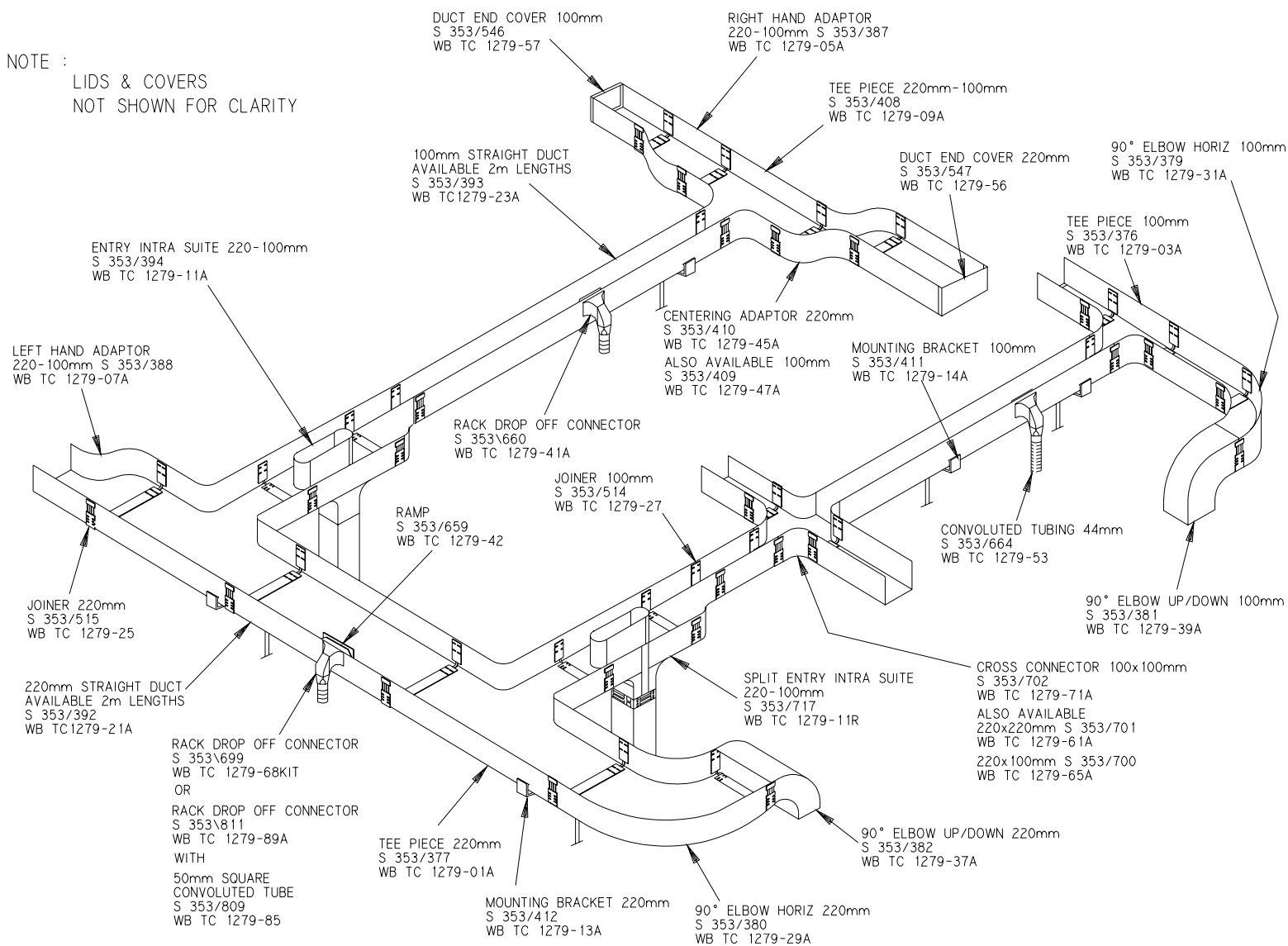
Refer to Fig 2, “Optical Fibre Ducting Components”, for type and connection of various parts.

Refer to TM00138-A01 Optic Ducting for further information

The standard sizing of duct used in the TEBA area is as follows:

- Along suites will be 100mm.
- Between suites will be 220mm.
- Interfacing to Transmission area will be 220mm.
- Above dedicated OFDP rack, use Intra Suite Entry Assemblies (TC1279-11A). If existing pigtails are installed into rack, use the retrofit version (TC1279-11R).
- Drop-offs to individual Carrier racks will use the standard combination of components. They are Ramp (TC1279-42), Rack Drop off Connector (TC1279-41A) and Convolved Tubing (TC1279-53).

NOTE :

LIDS & COVERS
NOT SHOWN FOR CLARITY**Fig2 Optical Fibre Ducting Components**

6.2.7. MDF & DDF Blocks and Cabling

The contractor must contact the FA&T Coordinator to obtain MDF and DDF block allocations, as required.

MDF drawings can be obtained from the FA&T Coordinator. Ensure usage is updated on drawings at completion.

For standards in relation to

- approved MDF block types;
- earthing of the MDF structure;
- fire stopping of wall opening and under MDF Cable Entry Space;
- MDF block rules;
- Line and equipment side blocks and mounting;
- Terminating MDF blocks;
- Butting of cables.

Refer to TM00099-A01 for Distribution Frames, TM00182-A01 for QM Main Distribution Frames and TM00182-A02 for Conventional Main Distribution Frames.

For standards relating to cabling from the TEBA rack to the exchange MDF or DDF, refer to the following documents:

- *“Unconditioned Local Loop – Internal Interconnection Cables”* (cabling to the MDF for ULL services); and
- *“TEBA: Installation of POI-DDF Tie Cables”* (for cabling to the DDF)

6.2.8. EARTHING SUPERSTRUCTURE

The TEBA Superstructure is to be isolated from any existing superstructure / building ironwork. This is to be achieved by using a suitable insulating material (eg Pyrolam), 5mm air gaps and appropriate nylon plugs. There shall be no electrical contact with any conductive material other than the TEBA Superstructure. The only exception to this, is a 35mm² green/yellow earth cable, which will connect from TEBA Superstructure to the SPC extension bar. The cable will be lugged at both ends.

For Earthing requirements, refer to 007 338 C8-6 (Power & Earthing Requirements for TEBA Equipment Areas).

6.2.9. SUITE LIGHTING AND AC PENDANTS

6.2.9.1. Lighting

Design & Layout information can be obtained from the installation section 5.6.1.10 & Drawings CN-1234 Sheet 5. (See Photo 5)

6.2.9.2. AC Pendants

In the TEBA area provide 15A, 240V AC, single phase, GPOs fused off the non-essential supply to allow carriers to power their test equipment. These are to be provided via

"droppers", suspended from the superstructure, but isolated from the superstructure, and located every 2m, where possible, at an approximate height of 2.1m above the ground, in the center of the equipment isles.

(See Photo 5)

6.2.10. POWER

6.2.10.1. DC Power

For this Section, refer to 0007 338 C8-6, "Power & Earthing Requirements for TEBA Equipment Areas".

6.2.10.2. Business Rules for Providing AC Power In TEBA areas

Below are the Business rules for interim provision of power in TEBA areas:

- Telstra is to provide DC power in accordance with the Facilities Access Agreement (FAA).
- Telstra will not provide AC power for Carrier's equipment in TEBA areas, except for AC pendants installed only for equipment testing purposes, to be shared by all the carriers.
- If Carriers require AC power, they must install Inverters in their racks at their own expense.
- The carrier will also be responsible for the O&M and performance of the inverter/s.
- AC Bypass feeds will not be provided from a Telepower Distribution board (ie: essential power circuit) for back up to inverter even if capacity is available.
- Generally, Telstra DPUs provide at least 3hr-battery backup (DC), and A&B circuits supported by Emergency Power Plant (EPP), within major sites.
- DC power feeding to inverter/s equipment shall be via a standard 32A circuit as used in TEBA application. Inverters larger than 1.0kVA are not to be used. A higher Current rating could only be provided via agreement with FA&T coordinator.
- Power and earthing to the rack housing inverter/s shall be in accordance to 007 338 C6-9.
- A separate IBN (Isolated Bonding Network) from the TEBA IBN shall be established for the use of inverter and all equipment powered by the inverter.
- All racks containing 240VAC power must be isolated in accordance to 007 338 C6-9. Where AC power is required to feed equipment in another rack, both racks must be adjoining. The adjoining sidewalls are to be removed, so that any connection cable is totally internal to the Carrier's racks. Both racks will be isolated together and earthed as a single rack.
- Alternatively, Carriers can install an inverter in each rack they require AC power. AC power cabling is not permitted external to any Carrier's rack.
- Telstra will not allow the installation of inverter/s within existing Racks.
- Telstra will not allow Carriers to provide AC power from their inverter to another Carrier's rack.
- Adjoining racks installed by future Carriers must not breach the earthing standards for the Rack housing the 240 VAC equipment. A space isolation barrier must be left to ensure isolation on the side of the Carriers rack. The area FA&T coordinator must approve all designs.
- The inverter used shall operate within the constraints (electrical noise, inrush current etc) specified in 007 338 C8-3.
- All cabling and installation work shall be in accordance with AS 3000, AS 3015 and the relevant states Electrical Wiring Rules.

- The maximum heat load should not exceed 300W/m².

Please contact Regional FA&T coordinator for any further questions relating to this topic.

6.2.11. FIRE AND SPRINKLER SYSTEMS

Fire and Sprinkler systems should be adequate in Telstra equipment areas in Telephone Exchanges.

In non-equipment areas to be utilised for TEBA, the existing Fire and Sprinkler system in the exchange may require an extension to cover this area. Consult with the Transfield Representative and/or the FA&T Coordinator while on Site visit.

6.2.12. DATA REQUIREMENTS

Contractors requiring access to data that is normally stored within Telstra systems shall request such access through FA&T Coordinator in the first instance. The FA&T co-ordinator may direct the contractor to the Contractor Data Centre (CDC) to obtain the data.

The FA&T co-ordinator will manage the recording of rack reservations at the Preliminary Study stage and will update the CADlink floor diagrams with final rack allocations once the Design and Construction Proposal is approved.

NOTE: there are additional database recording processes which contractors are commonly required to complete as part of their TEBA construction activities in the following documents:

- *“Unconditioned Local Loop – Internal Interconnection Cables”* (for cabling to the MDF for ULL services);
- *“TEBA: Installation of POI-DDF Tie Cables”* (for cabling to the DDF); and
- 0007 338 C8-6, *“Power & Earthing Requirements for TEBA Equipment Areas”*.

Also refer to Section 5.3.2, “Recording of Plant”.

6.3. Design and Construction Proposal

Components that may be required to be included **“in”** the Design and Construction Proposal are:

(Dependant on Scope of Work :- New TEBA, Extend TEBA or install racks & cabling)

- Overview.
- Building Access.
- Rack allocation/s, dimensions, and heat loading.
- Cabling specifications and routing.
- MDF/DDF block allocations.
- Equipment specifications, including heat loading.
- Forecasted power usage.
- Project Details (itemise specific works – Recovery, Installation, etc).
- Infrastructure (Power Distribution positions, Earthing details, O/F Location).
- Special Requirements/Instruction.
- Material List (Description, Reference, Delivery Address, Contact).
- Floor Plans and Other Drawings (“Approved for Construction” and “As Built”, Extracts, etc).
- EMS Checks and Approvals.
- Outage/Hazard Request Form.

Other components which may be included **“with”** the Design and Construction Proposal:

- Building Access Accessories (EACS card, Keys, etc).
- Installation Test Plan (ITP).
- Job Safety Analysis (JSA).
- Additional Documentation for Special Requirements (eg. Asbestos).

A *“TEBA Order and Design & Construction Proposal”* coversheet is available on the Telstra Wholesale TEBA webpage. Refer to the URL:

http://www.telstrawholesale.com.au/products/fixed_interconnect_access.htm?sub=teba

6.3.1. OCCUPATIONAL HEALTH & SAFETY

Telstra OH&S standards for work undertaken in Telstra exchanges are detailed in:

- SCH18-D&C (Operations Requirements for “Design & Construct” and “Construct Only” Contracts);
- SCH15.02 (Chemical Management);
- SCH15.03 (Acid and Diesel Fuel Spills);
- SCH15.08 (Non-Smoking Policy);
- 004 449 Managing Asbestos Building Materials within Telstra Owned and Leased Premises;
- Procedure 013731: Working in Network Sites (WINS); and
- 009709 Use of Mobile Phones in Exchanges and Transmission Sites.

6.3.2. INSTALLATION TEST PLAN (ITP)

An ITP is a document that maps / plans the verifications to be carried out at the commencement, during and on completion of the work.

The ITP may incorporate either independent verification and / or verification carried out by personnel directly responsible for the product / activity.

An ITP should be broken down into distinct activities within the process it is dealing with, and for each of those activities identify what inspections and/or tests are to be carried out. The level of detail an ITP shows is dependent on the layer within the project it represents.

6.3.3. JOB SAFETY ANALYSIS (JSA)

A Job Safety Analysis (JSA) is a tool to identify hazards, assess risks and select appropriate controls for existing and new works and site activities. A JSA is undertaken to develop safe systems of work. There are also other hazard study methods or tools that may be used to undertake an activity or task specific risk assessment. This is a requirement for all Contractors undertaking any work on Telstra Premises.

Refer to the document “*Procedure 013731: Working in Network Sites*” for more information relating to JSAs.

6.4. Material

All TEBA ironwork is to be zinc passivated or powder coated (painted).
NOT Galvanised.

6.4.1. MATERIAL LIST

Refer to the table in Attachment 1, which lists the material that may be required in a TEBA installation with a Manufacturer / Supplier Listed and a Part No / Serial & Item / Reference number.

The contractor should ensure a material list is included in a TEBA Design and Construction Proposal.

6.5. Installation Work

6.5.1. SUPERSTRUCTURE

The installation practice for the Superstructure is detailed in Drawings CN-1234, Sheets 1 to 29.

6.5.1.1. Order for Installation of Superstructure

The following table shows the order in which the installation is to be carried out.

Installation Activity	CN-1234 Drawings
Mark height of ironwork	Sheet 2, Section A-A
Mark out suite	Sheet 2, Section A-A
Install wall bar	Sheet 3, Detail A
Install top iron & support frames	Sheet 3, Section Z-Z detail A, F, L & H, Sheet 11
Install tie bar	Sheet 3, Section Z-Z detail A, F, L & H
Install Teltray	Sheet 3, Detail G, M & N
Install power tray	Sheet 16
Install safety mesh	Sheet 15
Install lighting	Sheet 5
Install ladder	Sheet 14
Install safety rail	Sheet 19
Connecting superstructures	Sheet 20
Earthing	Refer to 007 338 C8-6 (Power & Earthing Requirements for TEBA Equipment Areas)

Table 4 Installation Order

For installation measurements, refer to Table 1, “TEBA Suite Dimensions”. For pictorial representation of the measurements, see CN-1234, Sheet 2 and Fig 1, “TEBA Suite Dimensioning”.

Refer to Attachment 1, “Material List” for material requirements.

6.5.1.2. Mark out ironwork height

Choose a corner and mark the height of ironwork on the wall (see standard heights later in this section). This becomes the reference for the wall bars, it must be noted that the wall bars are mounted at two different heights, refer CN-1234, Sheet 2, section A-A, and this document Fig 3, “Wall Bars”.

The Design and Construction Proposal should specify the required superstructure height.

6.5.1.3. Mark out suites

The layout of the suites should be specified in the Design and Construction Proposal.

The centre of suite 1 should be marked (Datum point) and all other floor measurements should be made from this point. Reference CN-1234, Sheet 2, section A-A.

6.5.1.4. Install wall bars

The wall bars **must** be isolated from the walls with Uni-cushion supplied with the superstructure modules refer CN-1234, Sheet 3, Detail A.

- Masonry Walls: The wall bars are to be attached to the walls with either 10 mm Dyna-bolts or Loxins at 1 metre intervals.

- Plaster Stud Wall:- When mounting wall bars on a plaster stud wall, use Tek screws (for wood or steel depending on stud type). These screws are not included as part of the superstructure modules and need to be purchased locally.

Anchoring of the wall bars should occur at each stud. A stud locator can be used to determine the drilling positions. When using such screws on a plaster wall with steel studs, use a drill with a clutch to prevent over-tightening and subsequent stripping of the thread.

The wall bar for the Tie Bar should be mounted first and runs parallel to the equipment suites (tie bar mounts on this wall bar). Wall bars for the Top iron run at 90 degrees to the equipment suites (top iron mounts on this wall bar).

Refer to Fig 3a and 3b, and Table 5. When marking wall bar heights, the measurements Y & X should be marked on the appropriate walls. The dimensions for the various superstructure heights are given in Table 5, "Wall Bar Measurements". Fig 3b, "Wall Bar", shows the total height measurements of the ironwork.

The Design and Construction Proposal should detail the above mentioned measurements and dimensions.

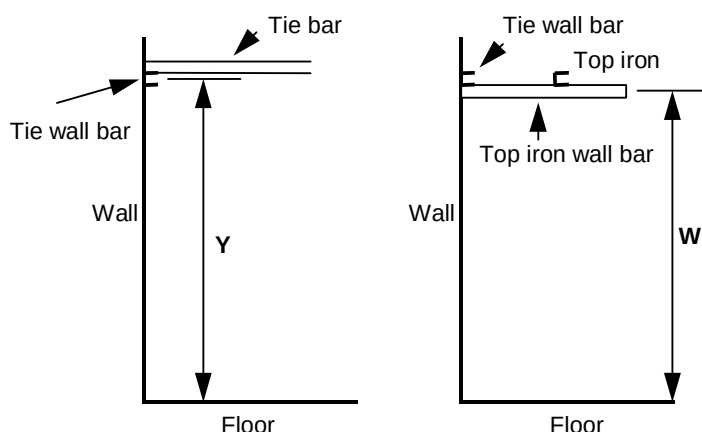
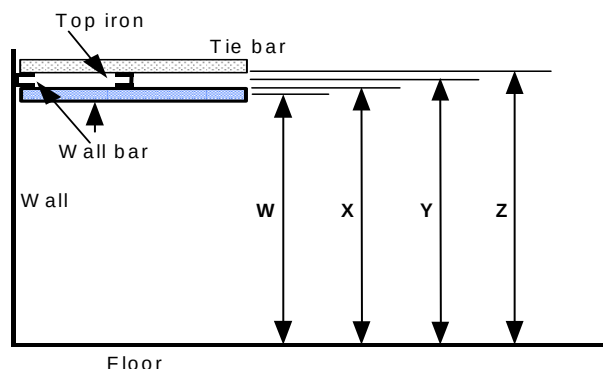


Fig 3a Wall Bar Dimensioning

**Fig 3b Wall Bar Spacing**

	Description	High	Low
W	Height to centre of wall bar (top bar support)	2825 mm	2338 mm
X	Height to lower side of top bar	2846 mm	2259 mm
Y	Height to centre of wall bar (tie bar support)	2866 mm	2379 mm
Z	Height to lower side of tie bar	2887 mm	2400 mm

Table 5 Wall Bar Measurements

6.5.1.5. Install top iron and support frames

Top irons and suite end frame /support frames should be installed at the same time. The top iron bar is mounted 300 mm from the suite centre (measure suite centre to outside of top iron). This means that the centre to centre measurement for the top iron above the suite is 600mm. Build one suite at a time and use the end frames / support frames to support the top iron.

Where top iron bars have to be joined but isolated from each other, use the Superstructure Isolation Kit (Breseight, 0353/00496).

Remember to check the floor plan for the suite layout. There should be a suite end frame (ie: "H Frame") at each end of the suite. These support H Frames should generally be installed every 2 racks, but must be installed with a maximum spacing of 2m between each H Frame.

Note: The suite end H frames and support H frames, support the superstructure (**not the racks**) and are to be left in situ after racks have been installed. They may however be moved to allow isolation of superstructure from racks but **must not** be moved more than 2 metres apart.

H Frames are also illustrated in Photo 6.

6.5.1.6. Install tie bars

The first tie bar should be installed 1000 mm (wall to outside of tie bar) from the wall supporting the top iron wall bar. Measurement details shown on CN-1234, Sheet 2. The connection of tie bar to top iron and wall bar are shown in details

CN-1234, Sheet 3, detail A & F. Where tie bars have to be joined but isolated from each other, refer CN-1234, Sheet 3, Detail J.

6.5.1.7. Install Teltray

Installation of the Teltray (aka Planar Shelf) is shown in CN-1234, Sheet 2, Section B-B & Sheet 3, Details G, M & N. Each length of Teltray is 150mm x 3m and is secured to the tie bar (Sheet 2 detail N). Teltray is also available as in double quantities (300mm wide, [2x15mm]x3m) from Breseight, 0353/00454.

The standard cable runway width is 920 mm and requires 6 lengths of Teltray to be joined (bolted at 1 metre intervals) side by side (detail M).

Where two or more lengths of Teltray are required to be joined (butted) to obtain a suitable length, the Teltray is to be joined by splicer plates (detail M). Teltray shall **NOT** be joined mid span (Refer CN-1234 Sheet 3). Teltray is supplied with the superstructure ironwork modules (Breseight S.353/00276 & 00450).

Where Teltray is cut, secure white angle flashing (supplied) to cut section to protect cabling and personnel with cable ties (Refer CN-1234 Sheet 1).

6.5.1.8. Install TEBA Power Tray, Fibre Tray, and Optic Fibre Duct.

For the TEBA area there is a **variation to CN-1234, Sheet 16** which is detailed in Fig 3. This variation involves the addition of tray for external optic fibre, power cabling and optic pigtail duct. This is also illustrated in Photo 1.

It should be noted that the cantilever brackets (mounting brackets) are mounted on each tie bar, along the suite.

Refer to Telstra Document TM00138 A01 “Optic Fibre ducting” with Telstra drawings CN1279 for details of Optical Pigtail ducting and Warren & Brown Optic Parts and Part numbers.

The positioning of the duct is also shown in Photos 1 and 2 as well as Fig 4.

The raised cable trays as illustrated in Fig 4 are to be installed above the racks (ie: not above the aisles) so cables can easily drop from these trays into the equipment racks. This traywork is also required to be installed between suites, preferably at a suite end (refer to Photo 2).

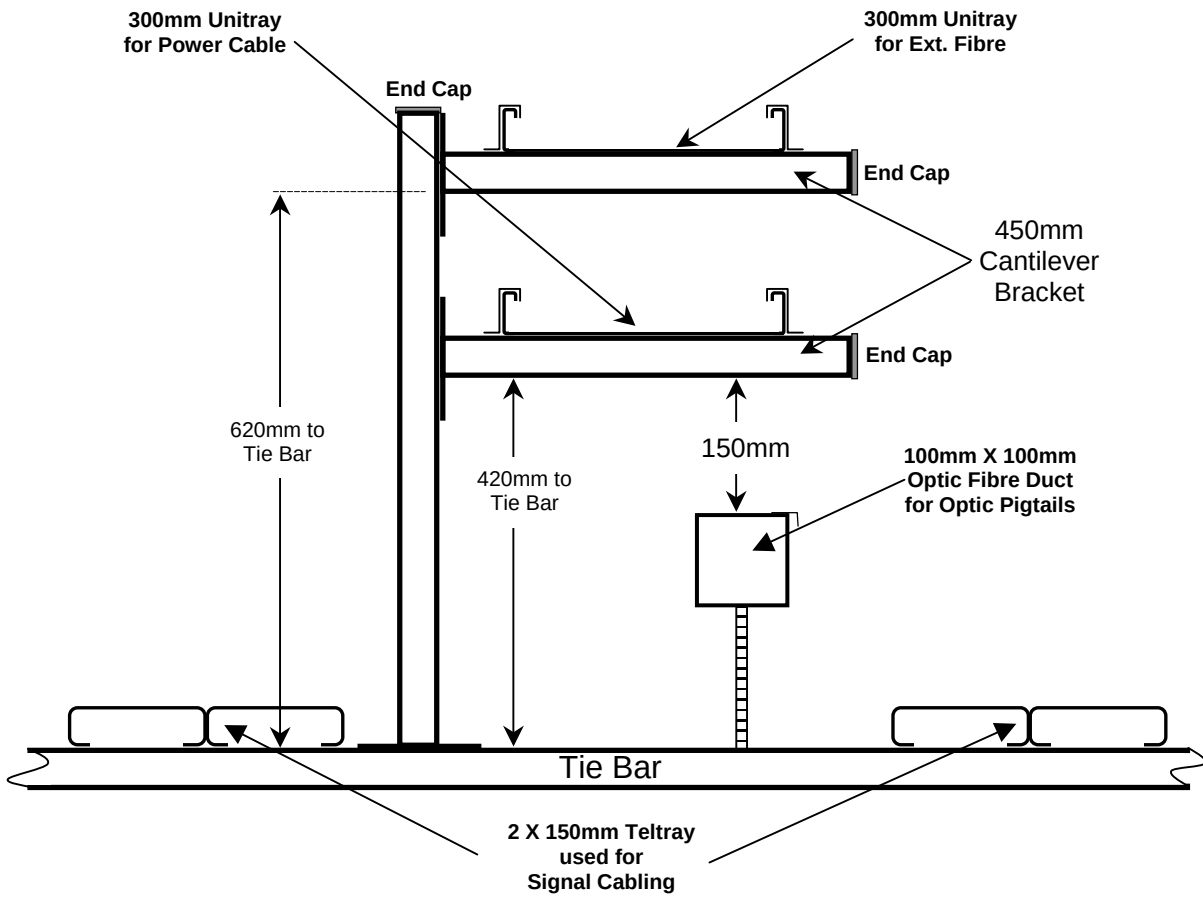
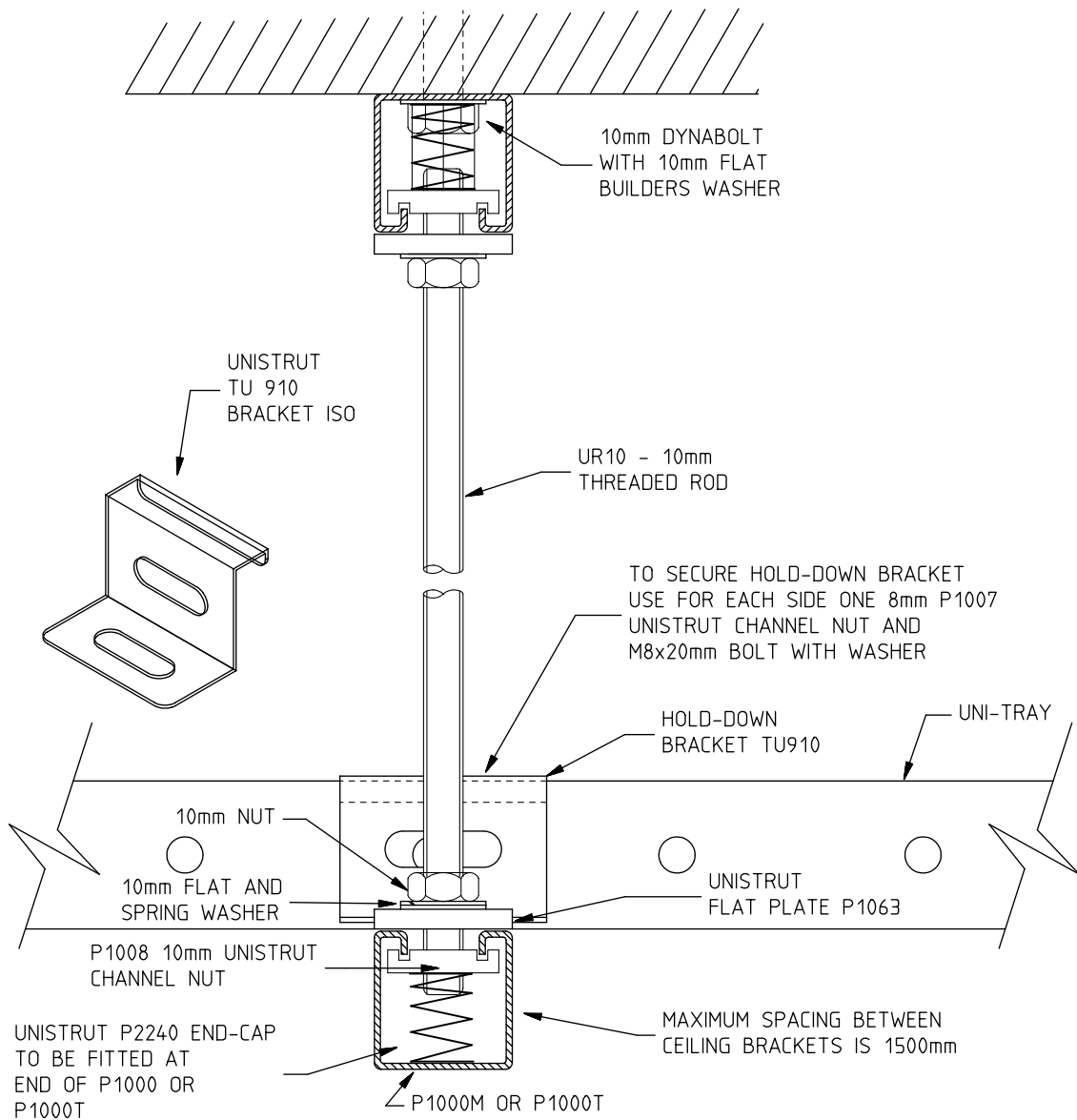
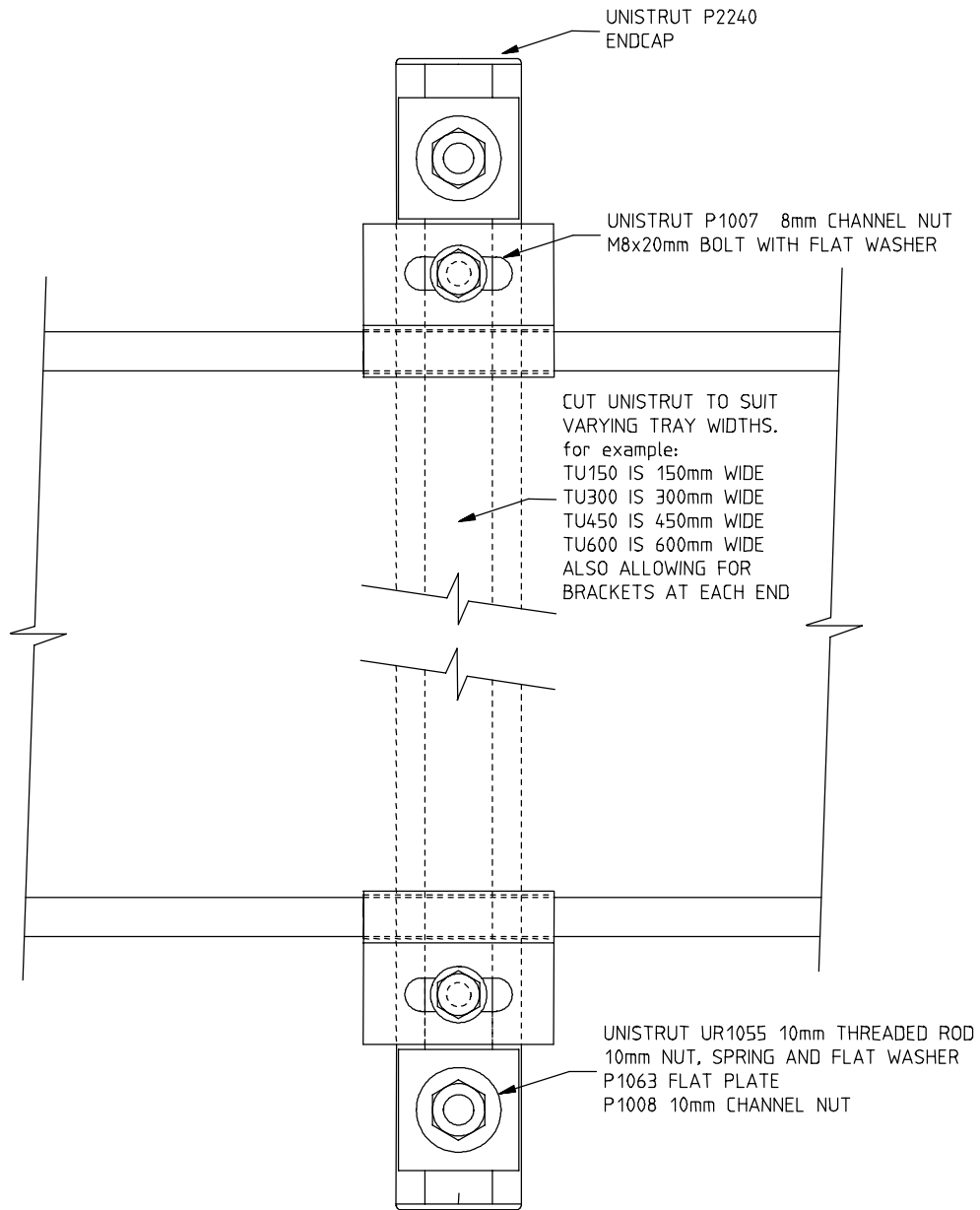


Fig 4 Internal TEBA Cable Runways



FRONT ELEVATION
CEILING SUPPORTED CABLE TRAY

Fig 5a Cable Tray Support from Ceiling



* PLEASE NOTE
ALL METAL PIECES TO BE ZINC PASSIVATED, EXCEPT
THE UNISTRUT WHICH IS TO BE POWDER COATED

PLAN VIEW OF BOTTOM SUPPORT BRACKET

CEILING SUPPORTED CABLE TRAY

Fig 5b Cable Tray Support

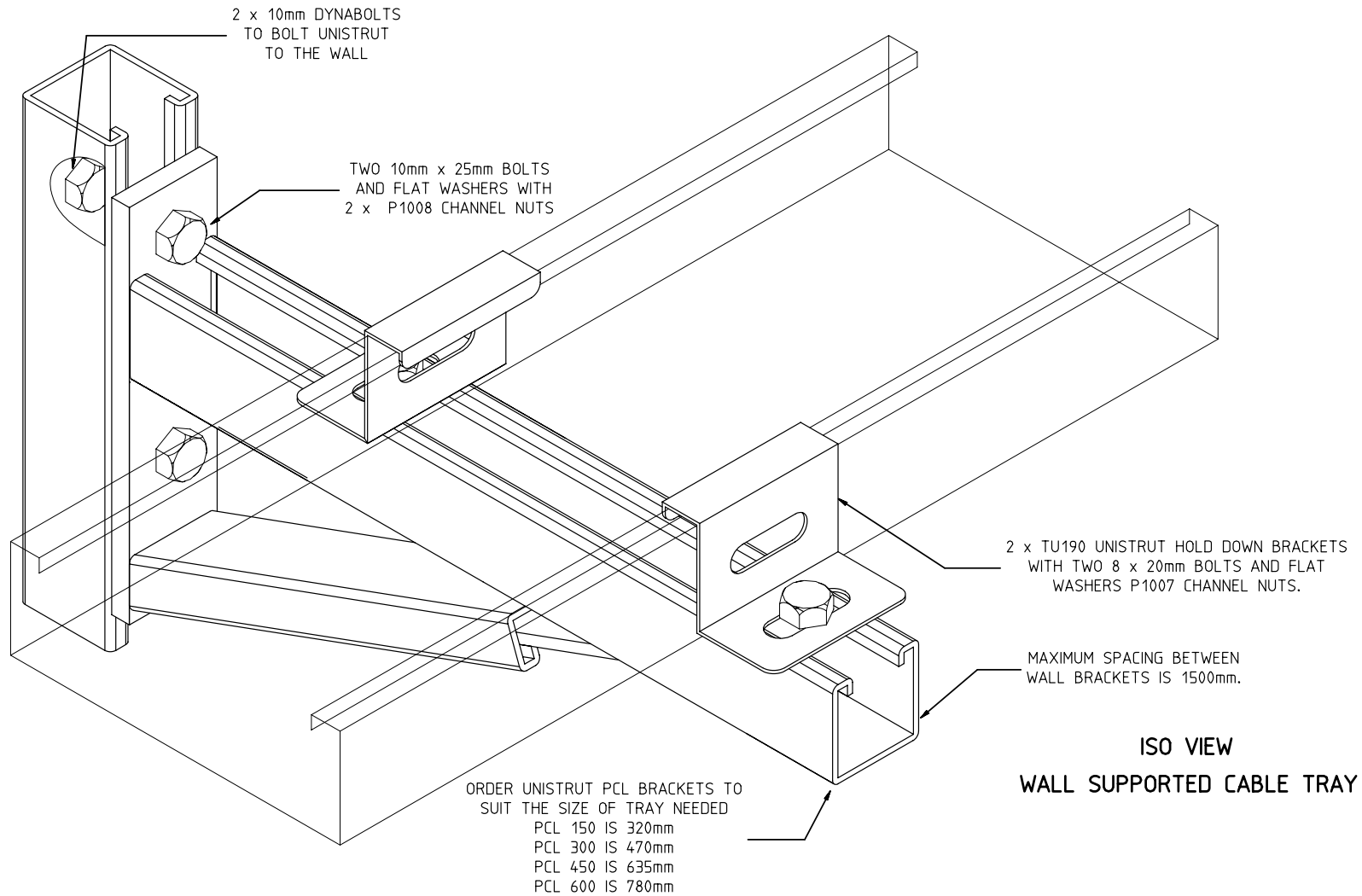


Fig 5c Cable Tray Support

6.5.1.9. Install safety mesh

Safety mesh is to be installed on the overhead superstructure wherever the superstructure has no Teltray mounted on it.

Once installed, the Safety Mesh shall NOT be removed. Ordinary Plastic cable ties shall not be used due to breakage when a person's weight is applied to the safety mesh. Only large wide ties are suitable.

The recommended methods of fixing the mesh to the top irons are:

- Metal Bands using 12 mm steel strapping tape, ZR seals and tensioning tool.
- Stainless steel Panduit ties S.269/00132 and GSM4T tension & cutting tool. (GSM4T is available from Panduit Aust. and its agents.)
- Large Panduit plastic cable ties as supplied with the Type 92 racks.

* HS&E guidelines shall be followed when installing and securing the safety mesh. There shall be no sharp edges, etc, left on the securing ties.

Minimal mesh squares are removed when providing holes/ apertures for Primary and Secondary Power Tray and Optic Fibre Ducting Installation. Ensure there are no sharp edges on the cut mesh.

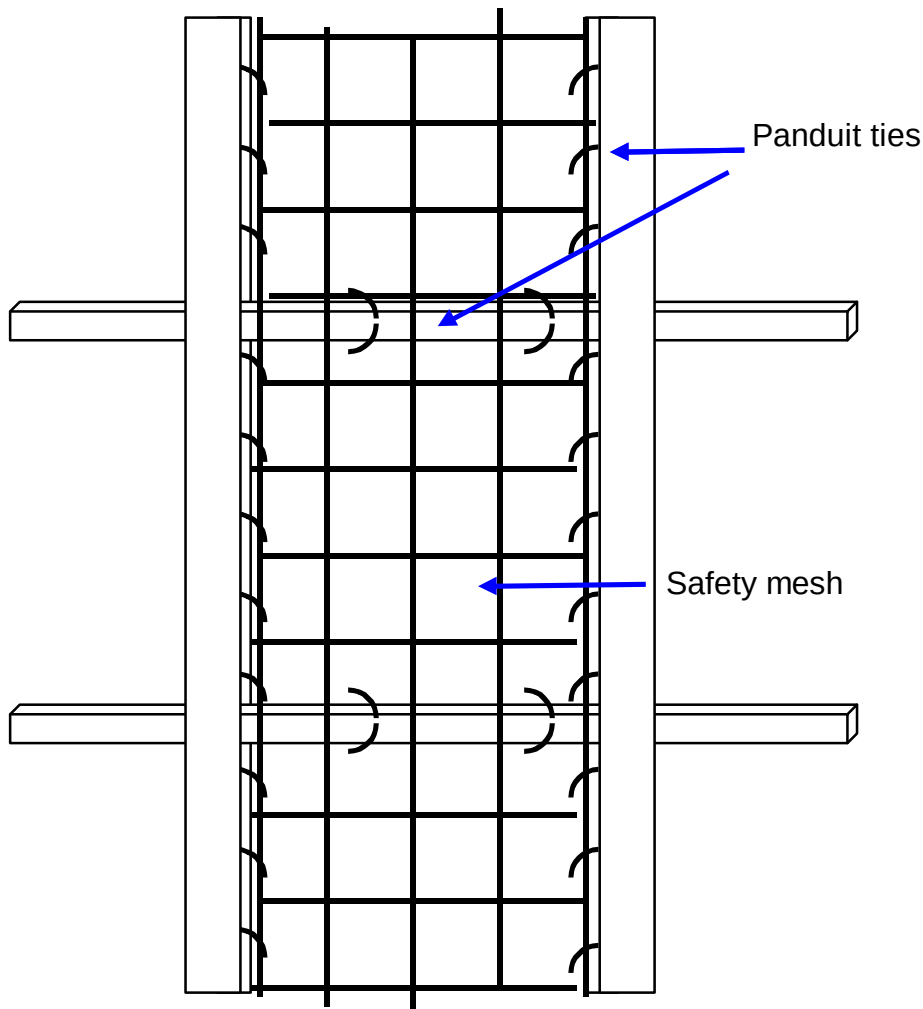


Fig 6 Safety Mesh

6.5.1.10. Install lighting

The new version of 240 Volt suite light is available under S.529/00051(Description - Light Unit, Fluor Exch Rack 40 W Single), this item is intended to replace S.529 Items 00033, 00049 and 00055.

The new light S.529/00051 mounting arrangements are detailed in drawing NB14655, available from CADlink. The new light may be mounted on 20mm steel conduit, Unistrut, AXE U-bar etc.

The recommended mounting method in equipment suites is on 20mm steel conduit in TEBA areas, running down aisle centres. The new lights are double insulated, the metal light attachment brackets on the light assembly are insulated from the light fitting with nylon nuts and bolts, as such changes to supplemental earthing arrangements have occurred, these are as follows:

- The 20mm steel conduit supporting the new suite lights (only) does NOT have to be isolated from the Superstructure. The 20mm steel conduit when used in conjunction with the new lights becomes part of the earth plane.
- The 20mm steel conduit supporting the new suite lights (only) does not have to be connected to the SPC via a supplementary earth 2.5mm² Green/Yellow cable.
- The 20 mm steel conduits in suites supporting the new lights (only) do not have to be 'daisy chained' with a supplementary earth between suites.
- The U-bolt assembly supplied with the new lights are currently 160 mm in length (first production). Where the new lights are mounted on 20mm steel conduit, the brackets will need to be shortened 20 mm to avoid personal injury from the brackets protruding below the secured light fitting. Later production lights will have a shorter bracket; this will be 140mm in length.

NOTE. Existing supplemental earthing arrangements for older version lights S.529/00033, 00049 and 00055 shall remain. A mixture of new and old lights on a common 20mm steel conduit will still require isolation and supplemental earthing.

It is recommended that existing supplies of S.529/00033 Light Unit, Fluor 40 W/Plug + Socket, Single, S.529/00049, Light Unit, Fluor Twin 36/40 W Plug + Socket, be utilised to complete existing suites where possible. If this is not possible, the new light S.529/00051 may be used, a suitably qualified person shall complete 240 V re-wiring which may be necessary.

Any excess cabling between suite lights may be secured loosely (eg - cable tied) to the 20mm steel suite conduit, excess cabling shall not be wrapped around the suite conduit or superstructure components. Care shall be taken to ensure excess cable between lights is properly secured and does not compromise the Occupational Health and Safety of staff.

AC Lighting Rules

The only situation where the steel conduit does not need a supplemental earth would be in a new environment where all lights are of the double insulated type.

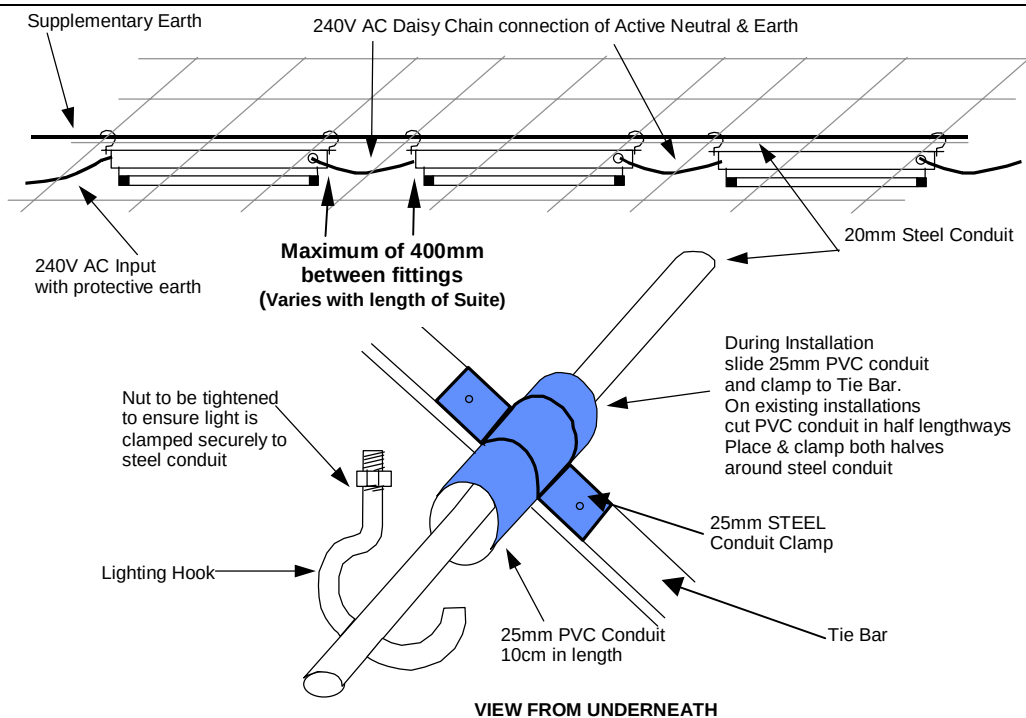


Fig 7a Non-Double Insulated Lighting (Positioning)

6.0mm Green/Yellow Cable

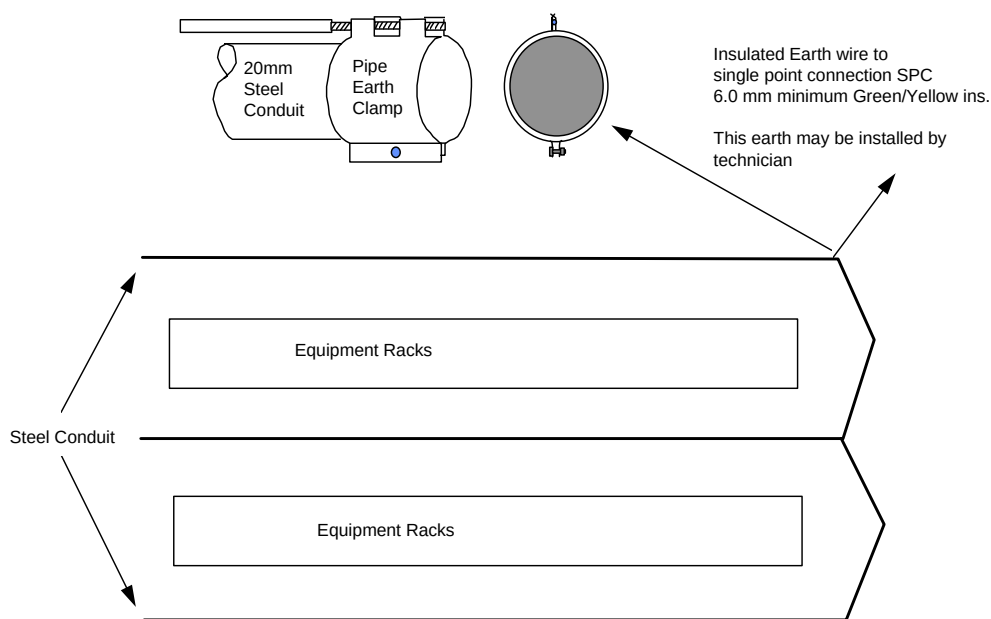


Fig 7b Non Double Insulated Lighting (Suite Layout)

Notes on Fig7a&b

PE (Protective Earth) connections including those from the 240 volt AC operated lighting, test equipment, modems etc must be insulated from the SE (Service Earth), zero plane and rack earth.

A SE (Supplemental Earth) is required for safety. It is used to protect the PE continuity under DC or AC fault conditions.

Ensure steel conduit and light hooks do not come in contact with the Tie Bars, superstructure, racks or zero plane.

The steel conduit is used as a SE, to ensure the continuity of this earth, conduit ends must be joined with 6mm² green/yellow cable and then taken to the SPC (Single Point Connection).

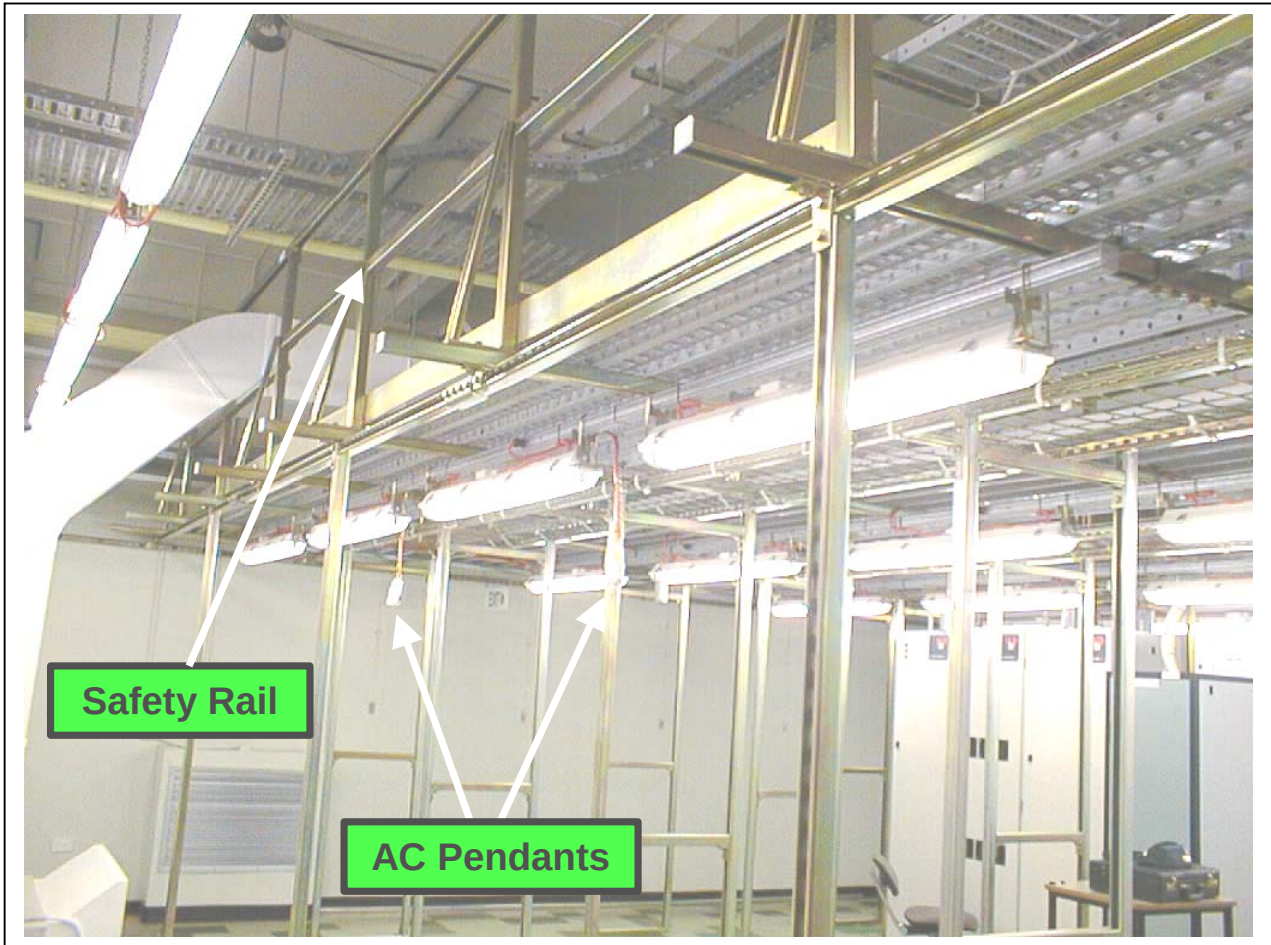


Photo 5 Lighting, Pendants & Safety Rail

6.5.1.11. Installation of Racks

When installing racks consideration must be given to the following:

- Fixing of rack to overhead ironwork.
- Mounting of rack to solid or false floors.
- Earthing and isolation of rack.

For more details refer to Technical Manual TM00046 'Racks'.

6.5.1.12. Installation of Superstructure Ladder

The installation of superstructure ladders and their positioning are to be defined in the Design. Install as per CN 1234, Sheet 14. There are ladders available to suit the two different ironwork heights:

- | | | |
|----|-------------|--------------------------------|
| 1. | S.353/00278 | Type 84A Ironwork 2887mm high. |
| 2. | S.353/00471 | Type 92 Ironwork 2400mm high. |

A superstructure ladder is illustrated in Photo 6.

6.5.1.13. Install safety rail

Safety rail shall be installed where superstructure Teltray does not butt directly to a wall or other structure or faces an open area. Refer CN 1234, Sheet 19. The safety rail is delivered as a kit (S.353/00463) and is 3 metres long.

Overhead safety rails are illustrated in Photos 5 & 6.

6.5.1.14. Inter-connection of superstructure

When inter-connection of Type 84/92 superstructure with Type 66/72 or AXE superstructures occurs, the superstructures need to be isolated from each other. The material required to carry out this work needs to be ordered separately and installed as per CN-1234, Sheet 20. The serial / items for the material required can be obtained from CN-1234, Sheets 1 & 2.

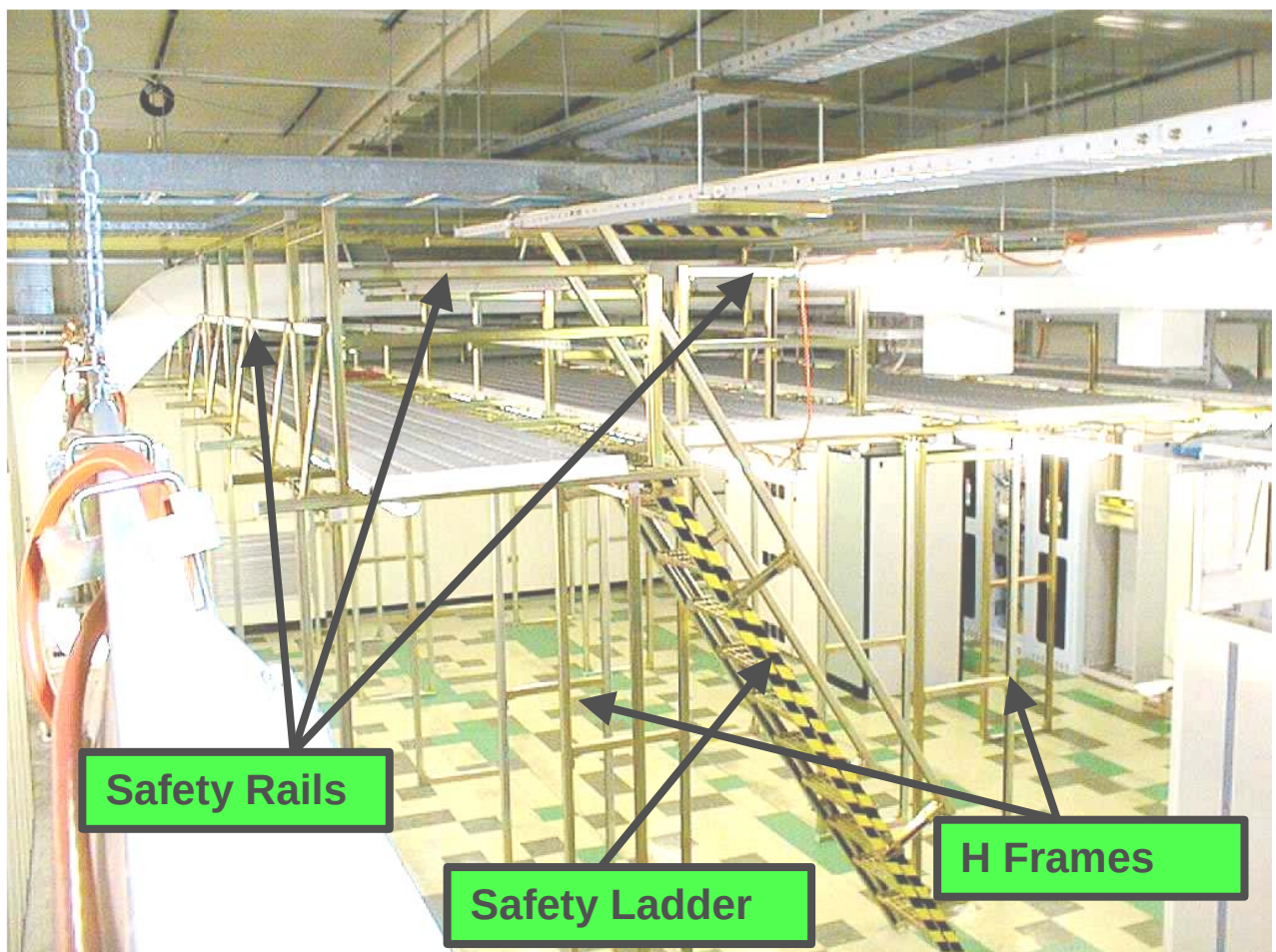


Photo 6 Safety Ladder & H frames

6.5.2. LABELLING OF PLANT, EQUIPMENT AND CABLING

The labelling for TEBA areas is separated into two categories: Telstra Plant and Carrier Plant. Anything that is designed as common infrastructure in the TEBA area is regarded as Telstra Plant.

The Contractor is responsible to ensure that all labels for Telstra Plant is as stated in Procedure 000511 “Numbering, Labelling and Date Entry (Requirements of Network Inventory)”.

The Individual Carrier has the responsibility of labelling their Racks as per section 5.5.2.3 below and the example in Attachment 2.

Other labelling standards which are commonly required to be followed in TEBA areas are specified in the following documents:

- “*Unconditioned Local Loop – Internal Interconnection Cables*” (for cabling to the MDF for ULL services);
- “*TEBA: Installation of POI-DDF Tie Cables*” (for cabling to the DDF); and
- 0007 338 C8-6, “*Power & Earthing Requirements for TEBA Equipment Areas*”.

These documents are available on the Telstra Wholesale TEBA Webpage. Refer to the following URL:

http://www.telstrawholesale.com.au/products/fixed_interconnect_access.htm?sub=teba

6.5.2.1. Floor Labelling Guidelines

Definition

The building level/physical location allocated to the equipment that must match the building labelling / lift designations as well as the fire alarm designations.

Allowable Values

Floors will be numbered with up to 2 x *Alphanumeric Characters*. Multifloor buildings will be numbered using *elevator numbers* and fire panel numbers as a reference, except for the Ground Floor that is referred to as GD in all cases. No leading zeros, spaces or asterisks.

6.5.2.2. Suites Labelling Guidelines

Definition

The unique positional location for a grouping of racks or frames on a building floor.

Allowable Values

Double-sided equipment suites are to be treated as two (2) suites for ALL technologies.

TEBA

Suites will be numbered with up to 3 x *Numeric Characters* (or 2 x *Numeric plus 1 x Alpha* ONLY where new suite insertion between two sequentially numbered suites is required). No leading zeros or non-alphanumeric characters.

In Exchanges, suites are to number sequentially (from 1) away from the main entrance door to the equipment room.

The contractor should consult with the FA&T co-ordinator when determining a new suite number.

6.5.2.3. Rack Labelling

Racks shall be labelled on the front of the rack (but preferably on both sides of the rack) to indicate:

- i) Carrier Name;
- ii) Node Code (for the carrier's racks – can be obtained from the FA&T co-ordinator); and
- iii) the Floor / Suite / Rack designation of the Rack.

Carriers with no existing equipment at site require a new Node Code, to be obtained from FA&T Coordinator. "Coding Rules for TEBA" are available in Procedure 009 236 A041.

A Sample of the standard format for Rack Labelling is contained in Attachment 2.

6.5.2.4. DDF and DDF Block Labelling

DDFs and DDF blocks shall be labelled in accordance with the standards as described in the document "*TEBA: Installation of POI-DDF Tie Cables*". This document is available on the Telstra Wholesale TEBA Webpage. Refer to the following URL:

http://www.telstrawholesale.com.au/products/fixed_interconnect_access.htm?sub=teba

6.5.2.5. MDF and MDF Block Labelling

MDFs and MDF blocks shall be labelled in accordance with the standards as described in the document: "*Unconditioned Local Loop – Internal Interconnection Cables*". This document is available on the Telstra Wholesale TEBA Webpage. Refer to the following URL:

http://www.telstrawholesale.com.au/products/fixed_interconnect_access.htm?sub=teba

6.5.2.6. Safety Labelling

Safety Signs and Hazard Tape shall be placed where necessary. This includes such areas as Safety Ladders, Superstructure that may protrude into access areas, Air Conditioner Ducting, etc.

6.5.3. RECORDING OF PLANT

All additions or alterations to Telstra network plant shall be recorded in the appropriate Telstra Systems (DBoRs – Database of Record). It is the responsibility of the Contractor to ensure the appropriate data is inputted to these systems prior to commissioning and handover. Contractors shall arrange the necessary systems access/data input by contacting the FA&T Coordinator, refer Section 5.2.10. The FA&T co-ordinator may in some cases refer the contractor to the CDC to arrange DBoR updates.

The identities and data input requirements for each of the systems are contained further within this Specification.

The following DBoR's will need to be updated:

- MITS (Constructor to forward detail of removed equipment if any recoveries are involved).

- CADlink (updating required to reflect layout of TEBA & new rack positions – NOTE: The FA&T co-ordinator will be responsible for updating CADlink for TEBA rack allocations).
- PAP (used to record circuit breakers for DC power feeds to racks)
- TRAC (updating required when Tie cables are installed to the DDF – refer to DBoR update processes as described in the document: “*TEBA: Installation of POI-DDF Tie Cables*”)
- NPAMS (updating required when Tie cables are installed to the MDF – refer to DBoR update processes as described in the document: “*Unconditioned Local Loop – Internal Interconnection Cables*”.)
- NetPower (Used to record the Primary Power Equipment – also refer to the document: 0007 338 C8-6, “*Power & Earthing Requirements for TEBA Equipment Areas*”.)

6.6. Commissioning/Acceptance

Once the Construction Activities are completed, the carrier must submit a Joint Completion Inspection request form to Telstra. This form is available on the Telstra Wholesale TEBA Webpage. Refer to the following URL:

http://www.telstrawholesale.com.au/products/fixed_interconnect_access.htm?sub=teba

Telstra and the carrier will then arrange a joint inspection of the completed work. The carrier will be responsible for rectifying any work that does not comply with the approved TEBA Design and Construction Proposal or any other Telstra standards or requirements specified by Telstra.

Attachment 3 is a guide of the areas of focus during a Joint Completion Inspection.

7. REFERENCES

Document Number	Title
000 511	Numbering, Labelling and Data Entry Requirements of Network Inventory
001 813 F01	Code of Conduct
009 389	Storage and Handling of Polychlorinated Biphenyls (PCB)
003 717	Management of Polychlorinated Biphenyls (PCB's
003 718	Safety and Environmental Awareness for PCB's
004 450	Surveying Asbestos Building Materials
004 449	Managing Asbestos Building Materials within Telstra Owned and Leased Buildings
007 338 C8-6	Power & Earthing Requirements for TEBA Equipment Areas
009 236 A041	Coding Rules TEBA
009 474	Audit & Verification (Procedures & Processes)
009 648	Interception (Monitoring) of Communications – Policy for External Contractors
009 709	Use of Mobile Phones in Exchanges and Transmission Sites
009 959	Material Management Process Overview
009 973	Network Capacity & Facilities Advice - Contractors Requirements
010 840 09	Telstra Global Connect Contracts Procedure Contractor Identification and Security/Access Requirements in Relation to Telstra Network Premises Buildings and Sites) and Global Connect Works Under Contract
011 920	Network Capacity & Facility Advice - Template Utility Procedure
Drawing CN-1234	Typical Superstructure for Types 84 & 92 Digital Equipment
Drawing CN-1279	Optic Fibre Duct
SCH15-05	Planned Event and Outage Management
SCH15-07	Laser Safety
SCH15-08	Non-Smoking policy
SCH15-10	Contractor Competencies
SCH15-11	Contractor Identification
TM00046	Racks
TM00099 A01	Distribution Frames
TM00138 A01	Optic Fibre Ducting
TM00182 A01	QM Main Distribution Frames
TM00182 A02	Conventional Main Distribution Frames
Not yet Numbered	Unconditioned Local Loop - Internal Interconnection Cables
Not yet Numbered	TEBA: Installation of POI-DDF Tie Cables
Procedure 013731	Working in Network Sites

8.

DEFINITIONS

The following words, acronyms and abbreviations are referred to in this document.

Term	Definition
aka	also known as
AMS	Access Management Services
CADLink	Drawing Program
CDC	Contractor Data Centre
Dbor	Database of Record
DDF	Digital Distribution Frame
DI	Deliverable Items
DP1B	Distributed Power, Revision 1B
EPP	Emergency Power Plant
Eq In	Equipment In, Receive
Eq Out	Equipment Out, Transmit
FAA	Facilities Access Agreement
FA&T	Facilities Access and Telepower
HOD	High Ohmic Distribution
IBN	Isolated Bonding Network
ITP	Installation Test Plan
LOD	Low Ohmic Distribution
MDF	Main Distribution Frame
MITs	Module Inventory and Tracking System
Multiman	Multiplex manager for the Customer Access Network (O/F)
NetPower	Network Power database
NPAMS	Network Plant Assignment & Management System
O&M	Operation and Maintenance
PAP	Power Allocations Program
PE	Protective Earth
PSA	Product Sourcing Agreement
QM MDF	Queensland Modular Main Distribution Frame
SE	Supplemental Earth
SPC	Single Point of Connection (for Earthing)
Superstructure	The Ironwork used to support & carry overhead cabling required for Installed Racks
TEBA	Telstra Exchange Building Access
TM	Telstra Manual
TP	Telstra Publication
TRAC	Transmission Recording and Control System
WUC	Works under Contract

9. ATTACHMENTS

Document Number	Title
TM00151 Attachment 1	Material List
TM00151 Attachment 2	Labelling
TM00151 Attachment 3	TEBA Joint Inspection Checklist

DOCUMENT CONTROL SHEET

10. KEY STAKEHOLDERS

The following stakeholders (listed alphabetically) have reviewed and agreed to the content of this document before issue:

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Issue No	Issue Date	Nature of Amendment
1	22 Oct, 2001	Original Issue
2	18 Apr, 2002	Final Issue
3	9 Dec, 2003	Updated Issue

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