

71-79 MACQUARIE ST REDEVELOPMENT ELECTRICAL AND COMMUNICATIONS SERVICES INFRASTRUCTURE CONCEPT REPORT

The following is a summary addressing the electrical and telecommunications infrastructure augmentation to service the new development located at 71-79 Macquarie Street, Sydney.

This concept report addresses in part the requirements of DGR 13.0 'Utilities' considering the required electrical and communications infrastructure to satisfactorily service the redevelopment.

1. ELECTRICAL SERVICES

a. Existing Electrical Infrastructure

There is an existing Ausgrid chamber substation within the existing building envelope located directly adjacent to the Cahill Expressway boundary. Two direct customer supplies service the existing building with five (5) low voltage distributors providing services external to the site. The substation is connected to the Ausgrid HV Triplex CBD network.

High voltage and low voltage infrastructure originates from an existing pit located in Macquarie Street adjacent to the substation. Streetlight services on Macquarie Street are also supplied from a street light control panel within the substation.

The existing chamber substation is to be decommissioned as part of the demolition works for this project. Temporary LV distributors will be established to support the existing electrical supplies which originated from the existing substation.

The existing streetlighting electrical service will be diverted to an alternative electrical supply in Macquarie Street.

b. Electrical Demand

The diversified electrical demand for the 71-79 Macquarie St Re-development is estimated at 1260kVA.

c. New Electrical Supply Infrastructure

A new three transformer triplex chamber substation will be established to service the redevelopment and to re-establish LV distributors previously disconnected and temporarily provisioned.

The transformer and accessways to the substation are planned from Macquarie Street, with the HV linkage point at the existing HV pit.

A low voltage direct customer service will be provided from the substation to a new main switchboard within the building.

The substation establishment works and all new high voltage and low voltage cabling will be installed in accordance with Ausgrid Network Standards.

2. COMMUNICATIONS SERVICES

a. Broadband Services – Telephony and Internet

The existing incoming telecommunications services of telephony and broadband provided via the existing Telstra copper and fibre system from their pit and duct network in Macquarie Street. There is an existing manhole on Macquarie Street which serves as the building entry lead-in for the telecommunications services.

New telecommunications infrastructure to the site will be provision through the existing Telstra pit and duct network on Macquarie Street.

It has been assumed the National Broadband Network provisions will apply to the site accordingly and the following should be noted;

- The NBN policy is to provide carrier infrastructure direct to each dwelling in accordance with the Telecommunications Act (1997);
- The Developer is to provide new pit and duct infrastructure into the site as well as providing ducting/conduit into each dwelling in accordance with NBN standards (Pit and Conduit Guidelines for Developers, MDU Design Guidelines for Developers), for the fibre cabling to be installed by NBN contractors when deployment is programmed for this site.

The communications room and incoming cabling pathways within the building shall provide suitable space for up to three (3) telecommunications carriers.

b. MATV & PayTV Services

Digital Free To Air services and Pay TV services systems will be provided in addition to the NBN broadband services network as the NBN does not provide for transmission of television signals.

Free to Air and PayTV services will be provided by individual antennae and satellite dishes located on the roof.