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ELECTRICAL ENGINEERING BUILDING CAPITAL RENEWAL AND MODERNISATION PROJECT
INFRASTRUCTURE MANAGEMENT PLAN

UNSW Australia
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Issue A

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1__ Introduction

1

This report has been prepared to address the requirements of the Environmental Impact Statement in order to meet the Secretary's Environmental Assessment Requirements (SEARs) with regards to the proposed provision of utilities to the refurbished Electrical Engineering Building and Rex Vowels Theatre sites.

The site is proposed to be connected to the following public utilities providers:

- Power_ ERM Business Energy
- Telecommunications_ Telstra and Optus
- Sewer_ Sydney Water
- Stormwater _ Sydney Water
- Water_ Sydney Water
- Gas_ Energy Australia (Origin Energy from 1/7/16)

The current proposed design includes no proposals to divert public infrastructure.

2__ Power

The Electrical Engineering Building and Rex Vowels Theatre is supplied from Substation No.7 located in the Electrical Engineering Building. Substation No.7 receives its 11 kV high voltage supply from Kingsford Zone Substation and belongs to the new "black" ring on campus which is also serving Tyree, Robert Webster, Mechanical Engineering, Rupert Myers and Old Main. The new "black" ring has capacity to run the substation at its full rated load. The proposed project intends to maintain the existing supply path into Substation No.7 and perform some upgrades to the existing substation in order to plan for the future use of the building.

3__ Telecommunications

The Electrical Engineering Building and the Rex Vowels Theatre is connected to the broader UNSW IT Communications Services voice and data network. The UNSW Communications Network is mature, with redundant core network widely distributed fibre and voice backbone cabling installed throughout the campus, UNSW IT Communications Services provides a high speed network with committed services levels for UNSW staff, students and affiliates. The Electrical Engineering building is connected to the UNSW data network via an existing multi core fibre ring that links the multiple building on that ring to two core communications networks. The current fibre reticulates via existing external conduits and pits and then via an external duct attached to the building. The new proposed service run will connect in to the building via the university services tunnel and enter the building at the Lower Ground floor connecting into the main Communications Room.

4__ Stormwater Drainage

New Drainage from building and its immediate surrounds will connect to the existing site stormwater service mains that discharge into the Campus aquifer under the UNSW oval.

5__ Sanitary Plumbing and Drainage

New Drainage from within the building and its immediate surrounds will drains to the existing Campus sanitary service mains (as it does currently).

6__ Laboratory Wastes Drainage and Dilution Treatment Pit

Existing trade waste installation is to be removed and existing 1000 litre trade waste pit recently installed on north side of south building are to be assessed for re-use subject to suitability of location and capacity. The discharge will be to the site's existing Campus sanitary drainage service.

7__ Potable Bore Water Supply

The existing water supplies and meters are to be removed and the building will be provided with a single connection to the site's existing Campus water main and also provided with one master meter.

8__ Non Potable Bore Water Supply

The existing service to building will be relocated and piped to the laboratory water supply storage tank and flush water storage tank direct from the existing Campus bore water main.

9__ Fire Hydrant Service and Fire Hose Reel Service

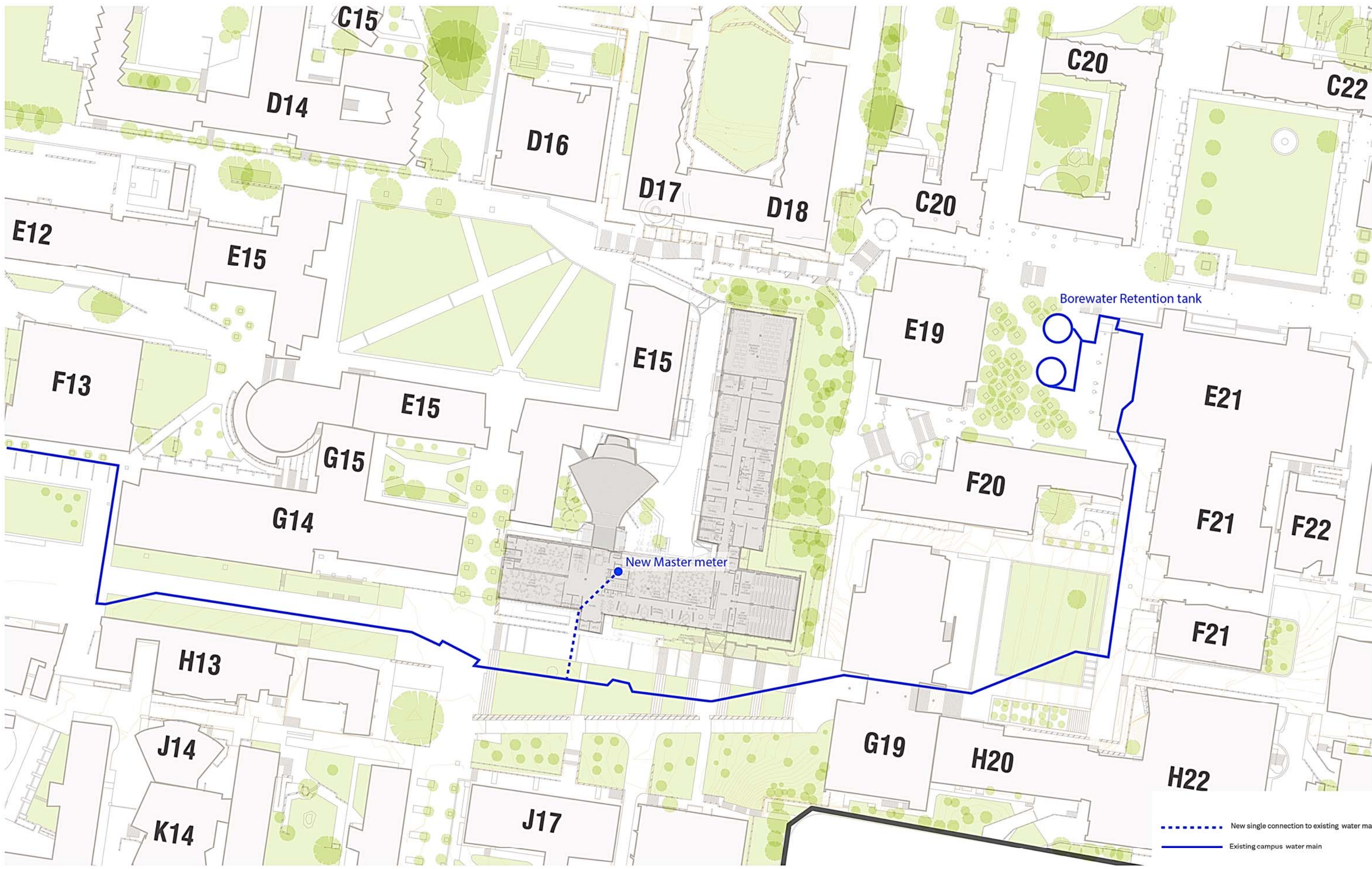
The water supply will be extended below ground from the existing booster valve assembly to the new fire pump room and diesel hydrant pump. The new pump room is in the same location as existing on the Lower Ground floor however the total area will increase in order to accommodate new equipment.

10__ Natural Gas Service

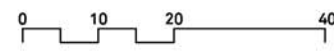
The gas service will have a single connection to the site's existing Campus gas main and provided with one master and regulator set.

11__ Fire Sprinkle Service

The upgrade water supply from booster valve assembly and cap off existing connection to the Campus main's supply.



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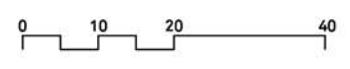
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UNSW Australia

Project Name
Electrical Engineering Building
Capital Renewal and Modernisation
Project (EEB_CRM)

Drawing
Water Proposed Utility Connection



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Electricity Proposed Utility Connection

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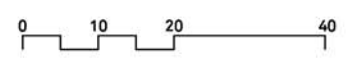
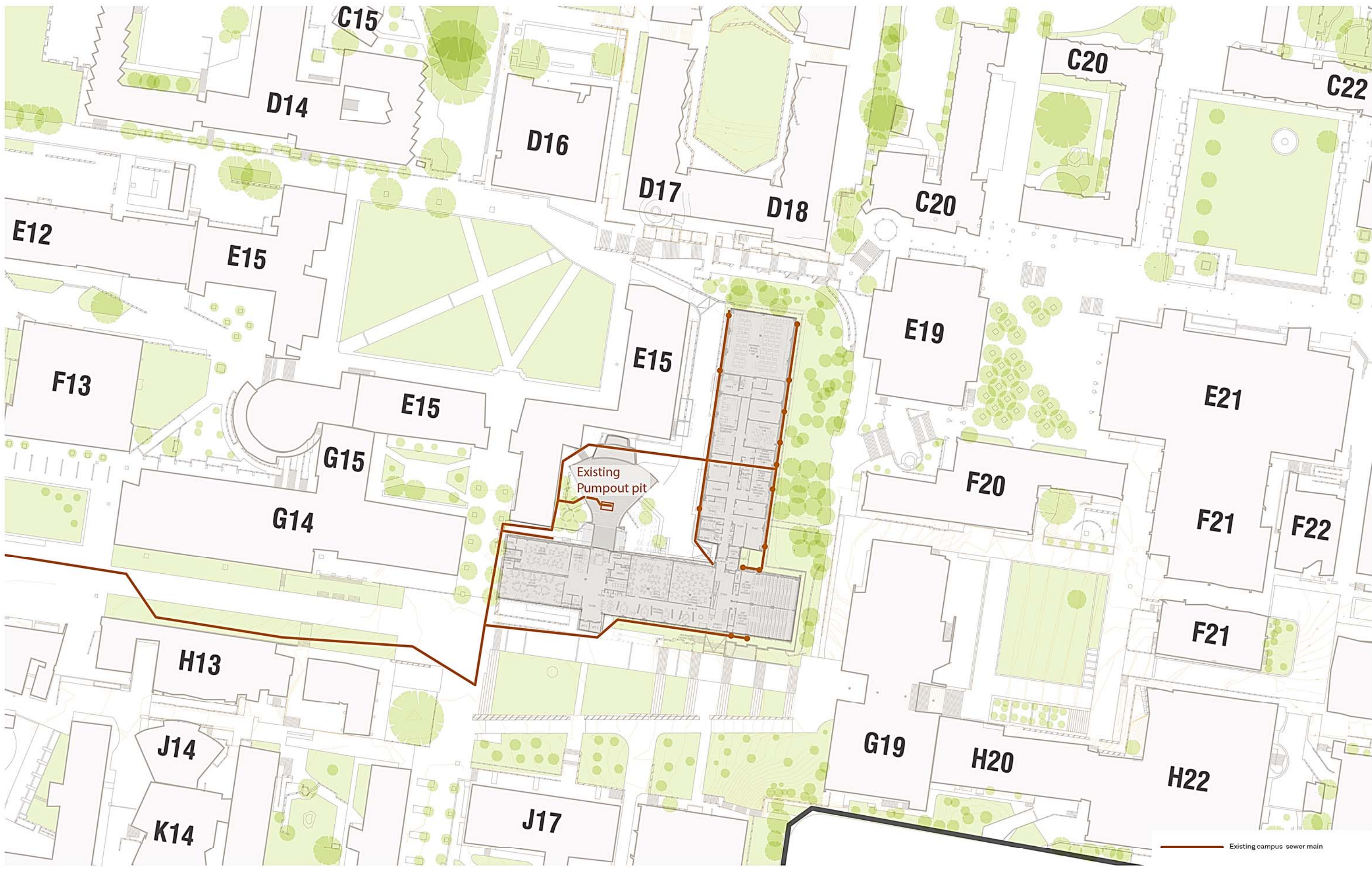
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Project Name
Electrical Engineering Building
Capital Renewal and Modernisation
Project (EEB_CRM)

Drawing
Natural Gas Proposed Utility Connection



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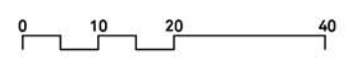
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Electrical Engineering Building
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Project (EEB_CRM)

Drawing
Sewer Proposed Utility Connection

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Telecomms Proposed Utility Connection

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