

Hydraulic Services Infrastructure Report

Proposed Stage 1 and Master Plan Work

at

St Ignatius College, Riverview

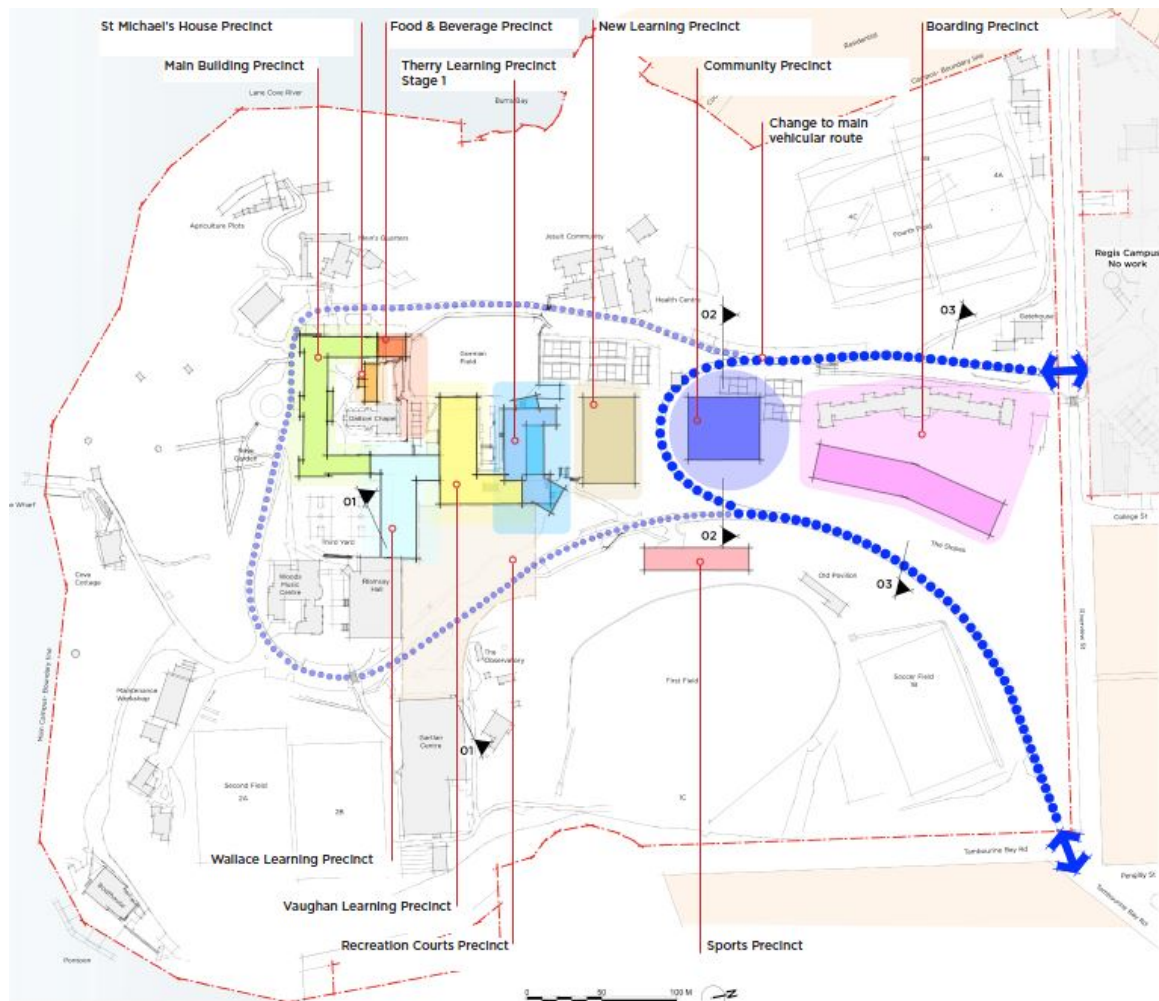


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1 GENERAL

St Ignatius College have commissioned Argent Consulting to carry out an investigation and provide an Infrastructure Management Plan for Sewer, Water and Natural Gas to support the SSD application associated with the proposed Site Master Plan as indicated in the image below.



The proposed Stage 1 Development Application and future Master Plan redevelopment. These consist of the following:

1.1 DA Approval for Stage 1 works to include:

Terry Precinct - Stage 1 - Expansion and refurbishment of the existing Terry and O'Neil buildings to improve and increase opportunities for learning, accommodate the House group in home bases, create more generous areas for staff and improve connection and circulation within and through the levels. Works are summarised as follows.

- Expansion of the existing Terry building footprint to the north to provide collaborative, connected, contemporary learning spaces.

- Expansion of the existing Therry building footprint to the west and O'Neil building footprint to the north east to create nodes that connect the three levels and provide opportunities for locating and celebrating the House and Staff Faculty areas.
- Refurbishment of the existing Therry and O'Neil Wings to provide collaborative, connected, contemporary learning spaces.
- Upgrade of the existing courtyard between Therry and Vaughan to better integrate with the learning and create a sense of place.
- Upgrade of the existing courtyard to the north of Therry as an extension of the learning at ground level.
- Upgrade of the landscape at the NE corner of the Therry courtyard to create a better transition over the significant level change, further opportunities for outdoor learning and an improved sense of arrival to Stage 1.
 - o Additional GFA = 1,850 m²
 - o Number of Levels = As existing
 - o Revised Building height = RL 49.50

1.2 Concept Master Plan Approval across the College includes:

Wallace Precinct - Demolish the existing Wallace and Administration buildings and replace with new facility of greater footprint in a similar location. Height of new building at 5 levels will be 1 level higher than the existing facility which will equate to the existing top floor level of the existing Doyle and Vaughan Buildings. The new building will provide improved learning opportunities for Science, Technology, Engineering and Mathematics as a STEM facility.

Food & Beverage Precinct - Provide a new and expanded Food and Beverage offer as a two storey building, north of the existing refectory building and west of St Michael's House, to replace the existing canteen that, from a service perspective, is poorly located centrally within the campus.

Main Building Precinct - Consolidate administration and staff into the existing Main Building and reinstate a sense of 'Front' door with new reception at ground floor. Locate staff on top two levels and connect these to ground level with new enclosed stair attached to northern facade as a light framed glass element.

St Michael's House Precinct - Develop St Michael's House as Heritage Centre providing forum for display and celebration of College's provenance, currently stored in archives at basement of Main Building. Remove most recent northern additions to building to reinstate to original form. Landscape northern area to provide generous areas for School community to gather and eat.

Vaughan Precinct - Refurbish lower 2 levels of Vaughan Building to create improved contemporary learning environments, House bases, staff areas and better connection between levels. Refurbish the existing library to better locate administration facilities to the west end and open up the learning areas to connect with lower levels of Vaughan and the new Wallace building.

Boarding Precinct - Consolidate boarding into a defined 'home' precinct with a new building accommodating existing boarders from St John and Fraser Boarding houses, both of which will be demolished.

Community Precinct - Develop central communal hub with catering, function, maintenance and sports facilities over a series of levels in a building wholly accommodated into the existing sloping site.

As part of this stage the main vehicular loop road will be reduced to northern end of campus to create shorter thoroughfare for buses, service vehicles and student pick up/drop off. The southern end of loop road will be transformed into a pedestrian zone enabling vehicular access as required.

Sports Precinct - Consolidate main playing fields and support facilities, which will include the replacement of the Father Mac Grandstand.

Recreation Courts Precinct - Create quality recreation space for the learning precinct as a level podium spanning the existing road and connecting to the sports and recreation precincts to accommodate new basketball courts. Development will result in loss of existing outdoor permanent parking spaces which will be reinstated under podium.

New Learning Precinct - Create additional learning facilities to cater for the specialised and flexible needs of contemporary learning and the College's diverse co-curriculum opportunities.

2 NATURAL GAS

2.1 Existing Services

The school is currently provided with a Natural Gas services reticulating through the campus to primarily supplying gas for Water Heating, minor space heating and teaching laboratories.

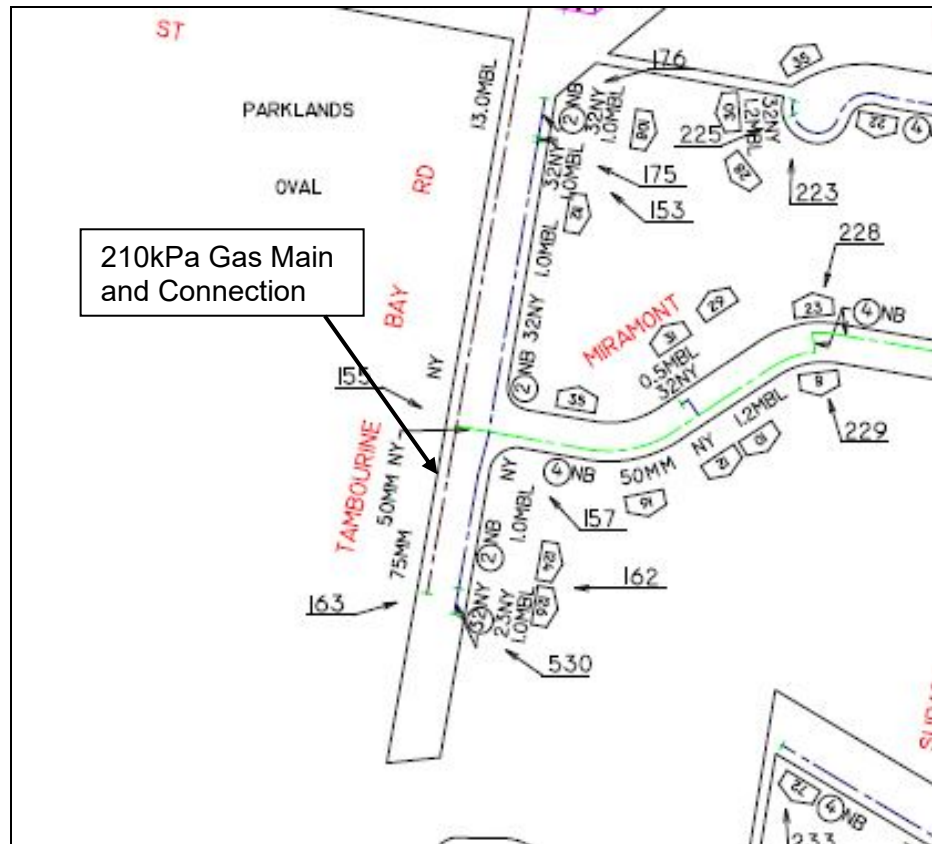
Stage 1: - These works build on and extend the existing Therry building with no or little impact of the existing gas infrastructure.

Master Plan:- In most cases these works also build on or replace existing facilities. At this stage details on these are limited and it is difficult to estimate the extent of any additional demand they may place on the existing infrastructure. Assessment will need to be undertaken once final details are available.

2.2 Jemena Infrastructure in the Vicinity of the Site

Response from Jemena shows there is a 75mm, 210KPA gas main 1.3 off the Tambourne Bay Road boundary.

Figure 1 – Jemena Natural Gas Infrastructure



3 MAINS WATER

3.1 Existing Services

The school is currently provided with a Potable water services reticulating through the campus to primarily supplying potable hot and cold water fixtures.

Stage 1: - These works build on and extend the existing Therry building with no or little impact of the existing water infrastructure.

Mater Plan:- In most cases these works also build on or replace existing facilities. At this stage details on these are limited and it is difficult to estimate the extend of any additional demand they may place on the existing infrastructure. Assessment will need to be undertake once final details are available.

3.2 Mains Water Infrastructure in the Vicinity of the Site

Sydney Water is the responsible authority for the provision of potable water to the site.

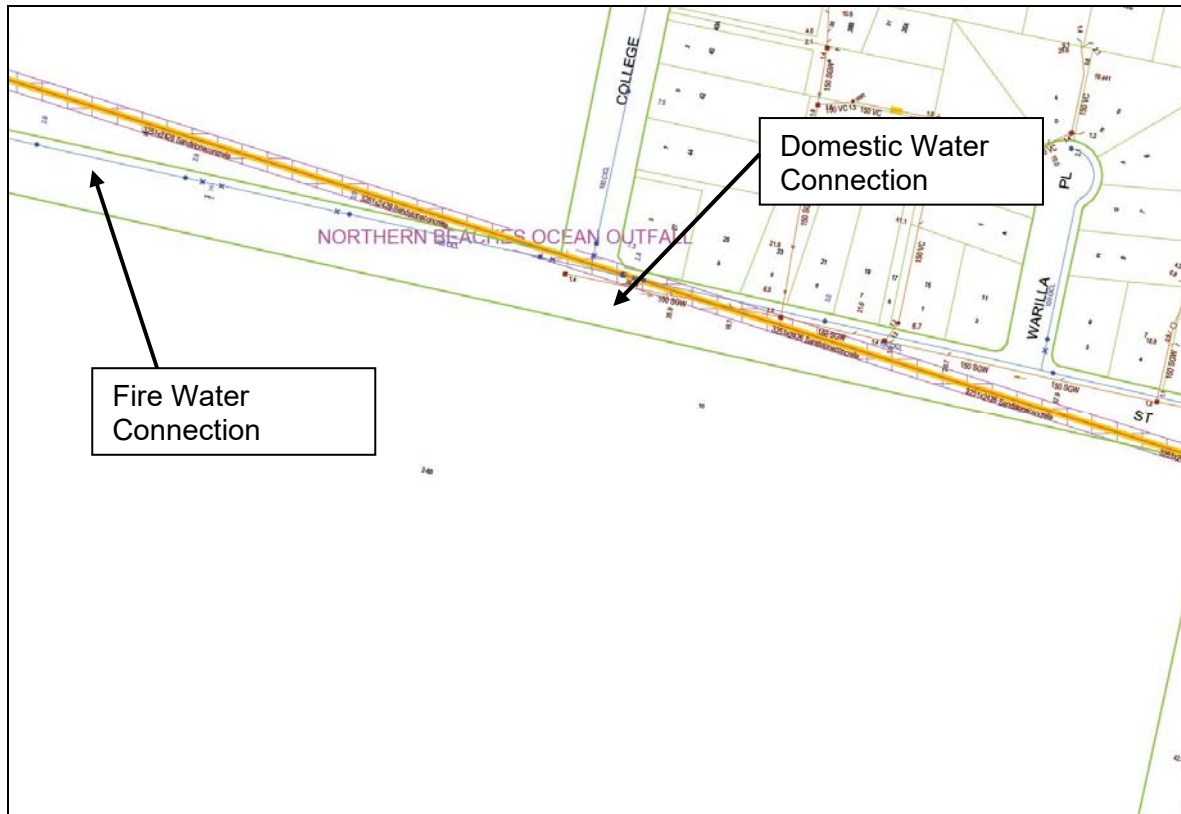
There is a 100mm diameter water main adjacent the site boundary along Riverview Road and a 100mm main on the opposite side of Tambourne Bay Road.

The site currently draws Fire and Domestic Water from the 100mm main within Riverview Road.

Fire water is supplemented by the provision of below ground Fire Water tanks adjacent the Riverview Road entry.

The ability of these services to supply the proposed work will be confirmed with Sydney Water as part of the Section 73 process post DA approval.

Figure 2 – Sydney Water, Water Diagram



4 SEWER

4.1 Existing Services

The college is currently provided with a sewer services reticulating through the campus to primarily supplying collect discharge from domestic fixtures and minor trade waste pre-treatment plant.

Stage 1: - These work build on and extend the existing Therry building with no or little impact of the existing sewer infrastructure.

Master Plan:- In most cases these works also build on or replace existing facilities. At this stage details on these are limited and it is difficult to estimate the extent of any additional demand they may place on the existing infrastructure. Assessment will need to be undertaken once final details are available.

4.2 Sewer Infrastructure in the Vicinity of the Site

Sydney Water is the responsible authority for the provision of sewer services to the site.

Information provided by Sydney Water shows 150mm gravity sewer services entering the site along the Tambourine Bay Road boundary.

The ability of these services to supply the proposed work will be confirmed with Sydney Water as part of the Section 73 process post DA approval.

Figure 3 – Sydney Water, Sewer Diagram

