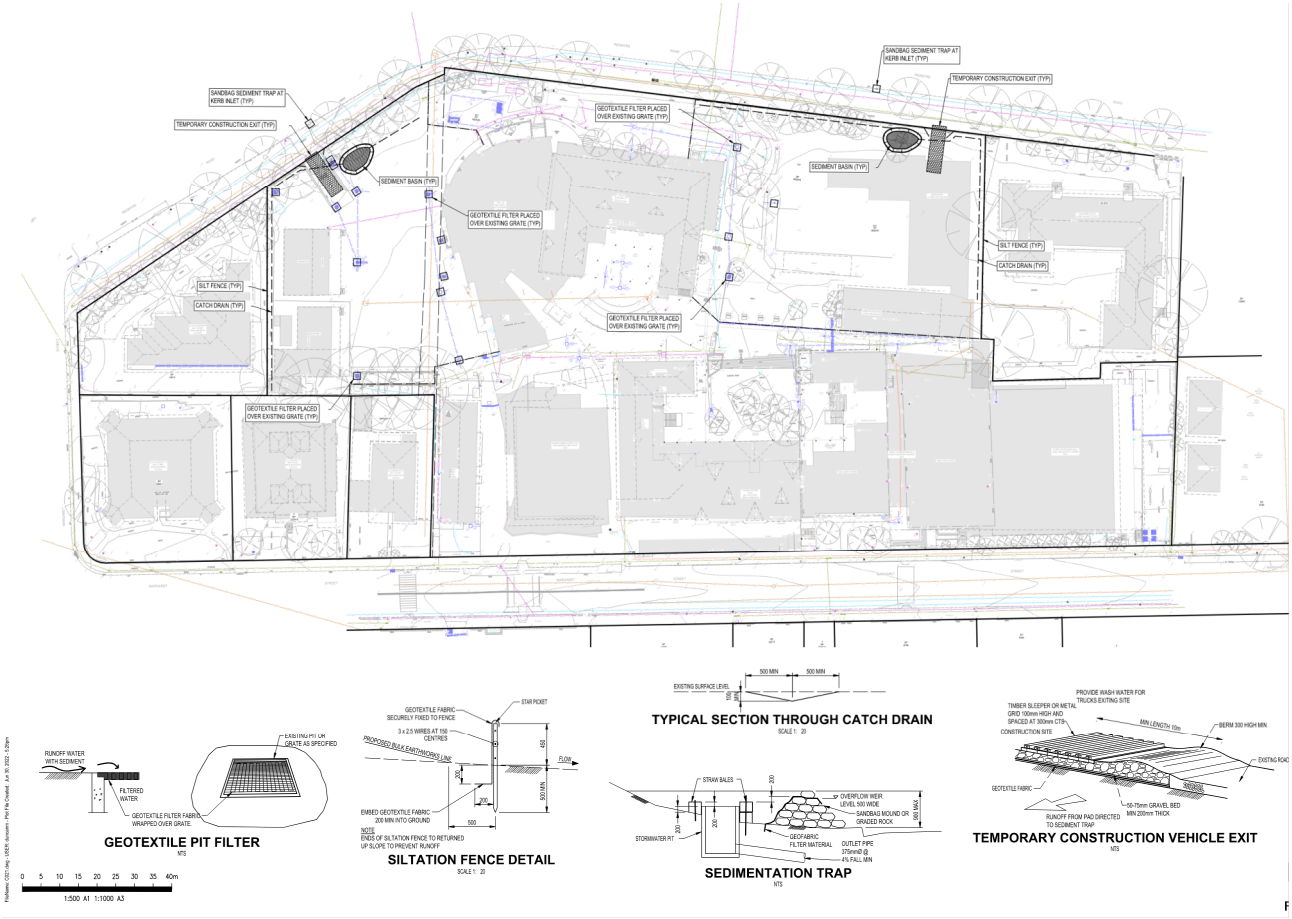
Construction Soil and Water Management Plan

A construction soil and water management plan has been developed by TTW Civil Engineers and is to be incorporated into this project, as per the below excerpt from TTW ‘’Erosion and Sediment Control Plan and Details’’ Drawing No. C021. All works will be carried out in accordance with local authority requirements, EPA Pollution Control Manual for Urban Stormwater and Landcom NSW – Managing Urban Stormwater: Soils and Construction.



The measures to be implemented include:

Entry and Exits

A purpose made construction exit similar to a ‘’cattle-grid’’ is to be provided. The cattle grid will ensure that the tyres of the vehicles existing the site are shaken to remove excess soils prior to driving on the public roadway.

- Exit Cattle Grid will be located in the 30-32 Redmyre site (Redmyre Rd driveway)
- Exit Cattle Grid will be located in the 30-32 Redmyre site (Margaret St driveway)

Silt Fencing

Silt fencing to the following zones will be installed to ensure all sediment from the construction works are contained within the site:

- Along the Redmyre Rd frontage of 28, 30 and 32 Redmyre Rd
- Along the Margaret St frontage of 30-32 Redmyre Rd

Haybale

Haybale will be installed at strategic locations around the site, to intercept all site waterflows and trap sediment. TTW have provided indicative locations for Haybale, however construction site waterflows will be observed when construction commenced, and Haybale will be laid accordingly.

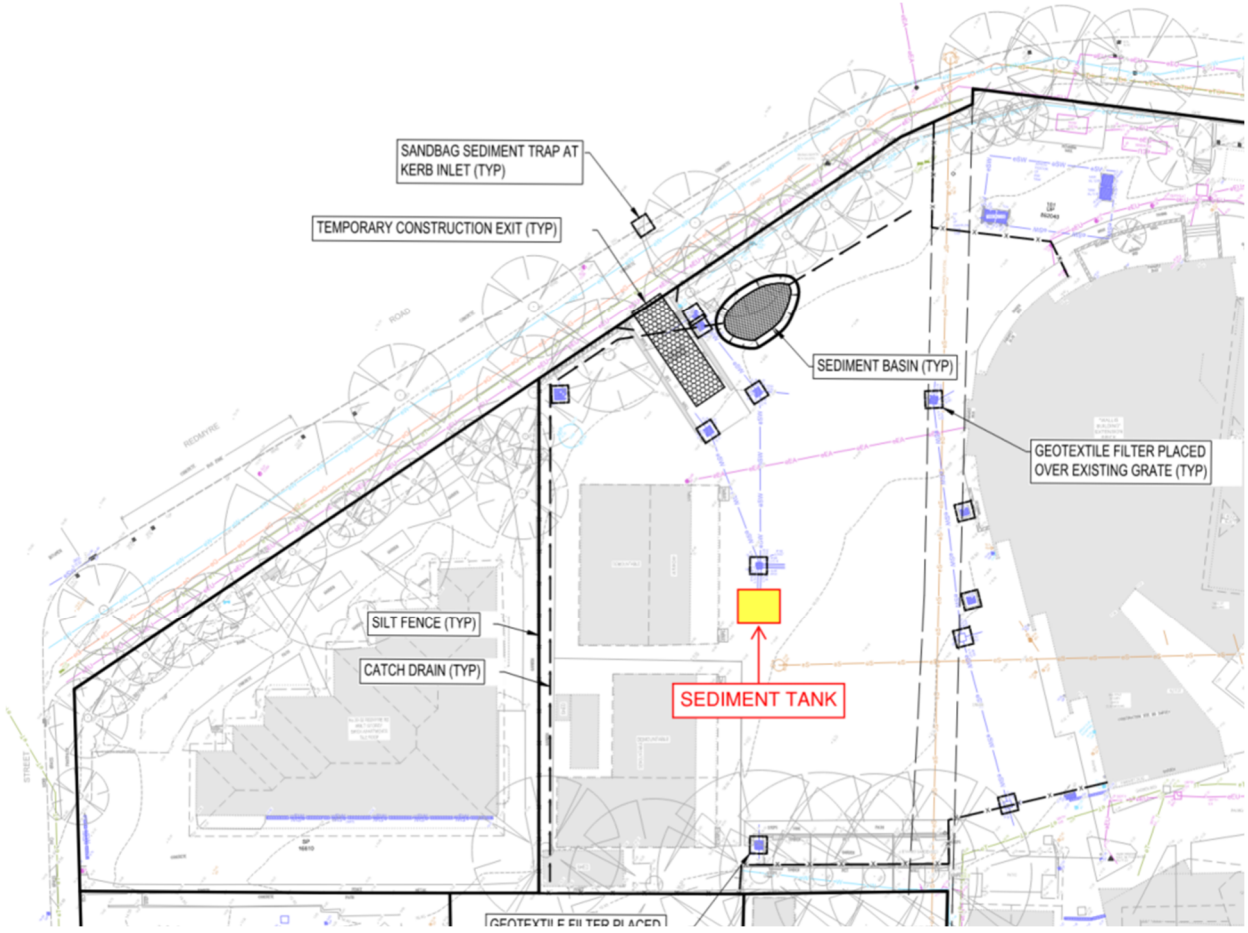
Geotextile Filters

All pits in and within the immediate vicinity of the construction site will be covered with Geotextile Fabric to ensure only clean water is charged into the stormwater system. Fabric will be maintained and replaced when rips or tears begin to occur.

Temporary Sediment Trap

A temporary sediment trap is to be construction in the north of the site (adjacent to the existing oval). The sediment trap will have a sediment storage volume of 6m3 and a total storage volume of 17m3. The sediment trap will be provided with a temporary 300mm dia. Connect to an existing pit. The sediment trap will also be routinely cleaned out for maximum efficiency.

As part of the proposed development, a permanent OSD and Rainwater Tank is to be installed in the location of the temporary sediment trap. At the time of construction, the permanent OSD and Rainwater Tank, an alternate sediment tank with flocking facilities shall be temporarily installed on site should it be necessary to control sediment and water-run off.



Management of Construction in Wet-Weather Events

As this project includes the excavation for a 2-storey basement, a sediment tank will be installed and located within the site to hold any rainwater or the like from wet-weather events. To prevent sediments from entering the public stormwater system when pumping out the collected water, coagulants are added to the water in

the sediment tank to create a floc with the unsettled particles. This process will prevent the contamination of the stormwater system.

Off-Site Flows from Site

Off-site flows from site include the pump out of water collected in the sediment tank into the public stormwater system. As there may be sediments in the water collected on site, coagulants are added to water in the sediment tank to create floc which prevents potential contamination of the stormwater system. Any solids in the water will be collected and disposed of in a bin which will be emptied at a licensed waste facility.

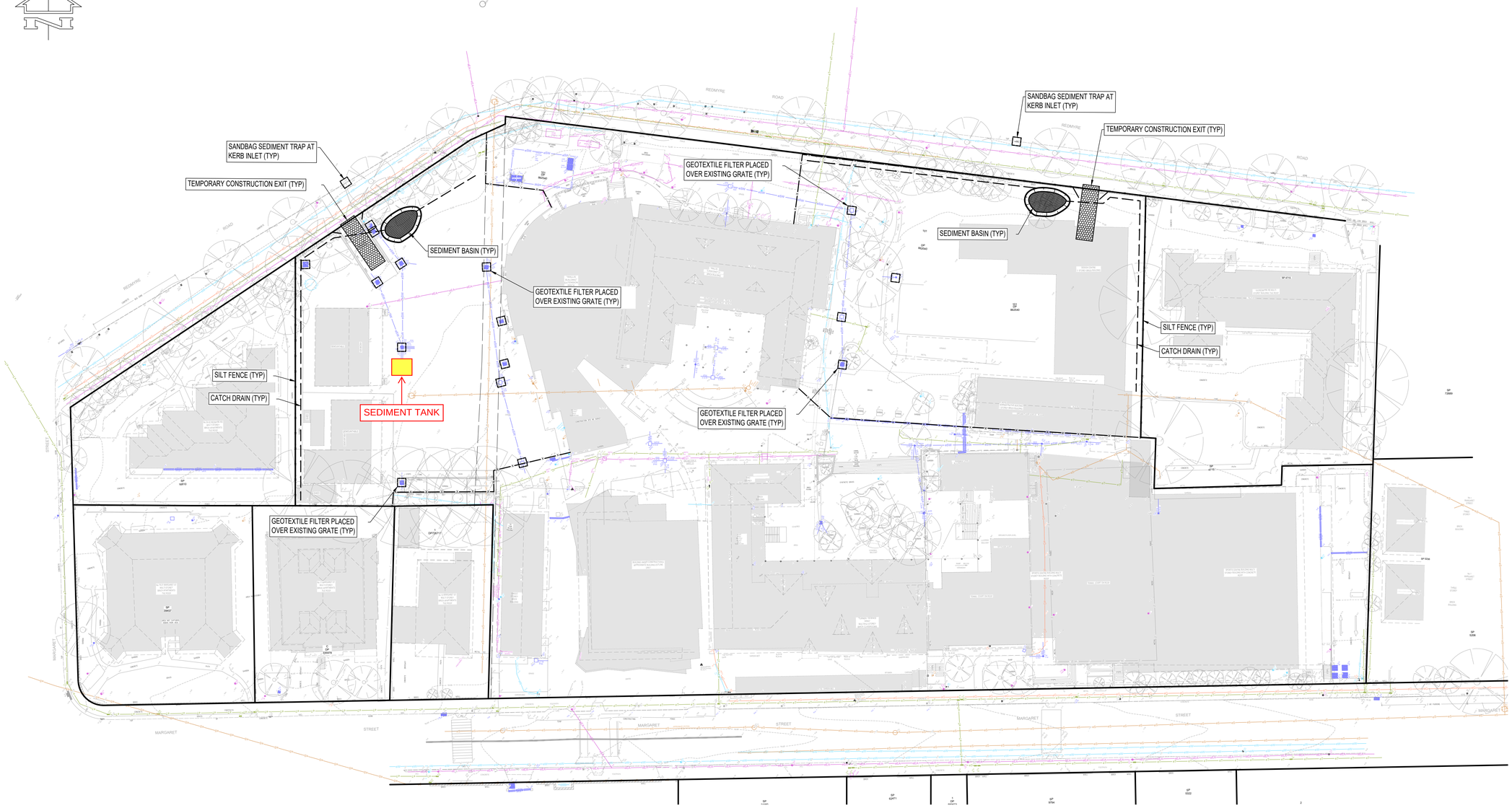
A vehicle wash down area will be located at the two exit driveways to remove any soil or debris from vehicles before exiting site. This will prevent tracking on the road networks. Cattle grids installed on top of DGB will be located at the exits and water will drain into through the DGB into the ground.

Measures to Manage Stormwater and Flood Flows

The following measures will be implemented to manage stormwater and flood flows for small and large sized events:

- Controlling erosion and managing stormwater during construction works is achieved by/ carried out in accordance with:
- Assessing all drains, gutters and areas upon which water may collect and implementing control measures using a Sediment Control Plan.
- Identifying where the natural falls of the site are and ensuring that sediment filters such as straw bales filters, gravel surface barriers, sandbags, pit baskets or geo-textile mesh screens are installed at runoff points, remain effective and are maintained during construction (to Council requirements).
- Sediment controls and practices are maintained during the project. Sediment controls are adhered to as per council and water catchment requirements.
- Cleaning rumble grids as required. Filtering water run-off from cleaning the grid must be filtered before exiting the site.
- Retaining natural vegetation to absorb water flows and to minimise dust. Ensure that revegetation occurs as soon as possible after the completion of works.
- Ensuring that waste materials such as paint, concrete slurries and chemicals are not discharged into a stormwater drain. Facilities are provided to enable paint brushes, rollers and spray equipment are cleaned without discharge of by-product into the stormwater system.
- Wastewater is collected and treated from concrete or tile cutting, by connecting to a wash-down system.

THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C01



EROSION AND SEDIMENT CONTROL NOTES

1. All work shall be generally carried out in accordance with
   (A) Local authority requirements,
   (B) EPA - Pollution control manual for urban stormwater,
   (C) LANDCOM NSW - Managing Urban Stormwater: Soils and Construction ("Blue Book").
2. Erosion and sediment control drawings and notes are provided for the whole of the works. Should the Contractor stage these works then the design may be required to be modified. Variation to these details may require approval by the relevant authorities.
   The erosion and sediment control plan shall be implemented and adapted to meet the varying situations as work on site progresses.
3. Maintain all erosion and sediment control devices to the satisfaction of the superintendent and the local authority.
4. When stormwater pits are constructed prevent site runoff entering the pits unless silt fences are erected around pits.
5. Minimise the area of site being disturbed at any one time.
6. Protect all stockpiles of materials from scour and erosion. Do not stockpile loose material in roadways, near drainage pits or in watercourses.
7. All soil and water control measures are to be put back in place at the end of each working day, and modified to best suit site conditions.
8. Control water from upstream of the site such that it does not enter the disturbed site.
9. All construction vehicles shall enter and exit the site via the temporary construction entry/exit.
10. All vehicles leaving the site shall be cleaned and inspected before leaving.
11. Maintain all stormwater pipes and pits clear of debris and sediment. Inspect stormwater system and clean out after each storm event.
12. Clean out all erosion and sediment control devices after each storm event.

Sequence Of Works

1. Prior to commencement of excavation the following soil management devices must be installed.
1.1. Construct silt fences below the site and across all potential runoff sites.
1.2. Construct temporary construction entry/exit and divert runoff to suitable control systems.
1.3. Construct measures to divert upstream flows into existing stormwater system.
1.4. Construct sedimentation traps/basin including outlet control and overflow.
1.5. Construct turf lined swales.
1.6. Provide sandbag sediment traps upstream of existing pits.
2. Construct geotextile filter pit surround around all proposed pits as they are constructed.
3. On completion of pavement provide sand bag kerb inlet sediment traps around pits.
4. Provide and maintain a strip of turf on both sides of all roads after the construction of kerbs.

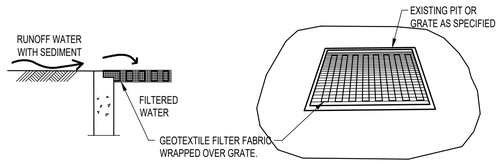
WATER QUALITY TESTING REQUIREMENTS

Prior to discharge of site stormwater, groundwater and seepage water into council's stormwater system, contractors must undertake water quality tests in conjunction with a suitably qualified environment consultant outlining the following:

- Compliance with the criteria of the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000)
- If required subject to the environmental consultants advice, provide remedial measures to improve the quality of water that is to be discharged into Councils storm water drainage system.This should include comments from a suitably qualified environmental consultant confirming the suitability of these remedial measures to manage the water discharged from the site into Councils storm water drainage system. Outlining the proposed, ongoing monitoring, contingency plans and validation program that will be in place to continually monitor the quality of water discharged from this site. This should outline the frequency of water quality testing that will be undertaken by a suitably qualified environmental consultant.

EROSION AND SEDIMENT CONTROL LEGEND

- Batter
- Siltation fence
- Stormwater pit with Geotextile filter surround
- Hay bale barriers
- Sandbag sediment trap
- Catch drain
- Overland flow path
- Extent of disturbed area



GEOTEXTILE PIT FILTER
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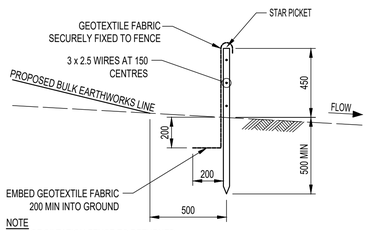
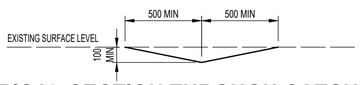
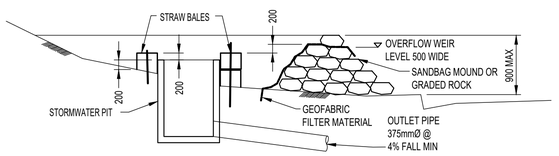


SILTATION FENCE DETAIL
SCALE 1: 20



TYPICAL SECTION THROUGH CATCH DRAIN
SCALE 1: 20



SEDIMENTATION TRAP
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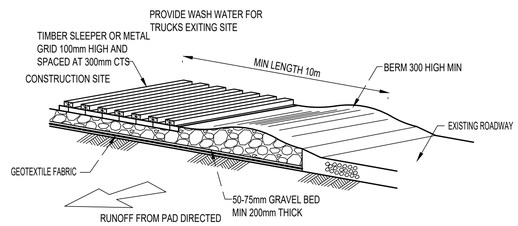

TEMPORARY CONSTRUCTION VEHICLE EXIT
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0 5 10 15 20 25 30 35 40m

1:500 A1 1:1000 A3

THIS DRAWING HAS BEEN PREPARED USING COLOUR

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

FileName: C021.dwg - USER: dcnairn - Plot File Created: Jun 30, 2022 - 5:26pm

Rev	Description	Eng	Draft	Date
P1	FOR REVIEW	DM	SH	27.06.22

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Sheet Subject
SEDIMENT AND EROSION CONTROL PLAN

Scale : A1 AS SHOWN | Drawn | Authorised

Job No 221208 | Drawing No C021 | Revision

Plot File Created: Jun 30, 2022 - 5:26pm