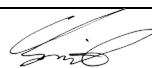




531 – Bankstown North Public School – Main Works

CONSTRUCTION SOIL & WATER MANAGEMENT SUB-PLAN

Client:	SINSW
Project Address:	322 Hume Highway, Bankstown, NSW 2200
Developed By:	Chris Sposito – HSEQ Manager 
Revision & Date:	1 – 11/05/2021

CONSTRUCTION SOIL & WATER MANAGEMENT SUB-PLAN

CONTENTS

- 1 Introduction**
- 2 Stormwater Management & Discharge**
- 3 Controlling Sediment Leaving Site**
- 4 Erosion & Sediment Control Plans**
- 5 Management of Site During Wet-Weather Events**
- 6 Compliance**

1	INTRODUCTION
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This Construction Soil & Water Management Sub-Plan defines the Patterson Building Group (PBG) system & processes for the management of potential soil & water issues for the Bankstown North Public School project and outlines how the requirements of the specification have been addressed.

In accordance with the SSDA Approval Conditions for SSD-10290 - Redevelopment of Bankstown North Public School, Patterson Building Group hereby confirms that this Construction Soil & Water Management Sub-Plan has been developed to assist pattern fully satisfy condition B14 section G & condition B14 (expanded upon in section 6).

2	STORMWATER MANAGEMENT & DISCHARGE
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Upon site establishment PBG will monitor all drainage entry and discharge points. All drains are to be immediately controlled with fabric and/or silt fences to filter water entering and exiting the site.

During construction works PBG will create 2 catchment areas for heavy inclement weather, one being on the lower side of site and the holding/ treatment area and the other at the water tank location.

These measures will be continually reviewed via weekly environmental inspections in accordance with PBG's environmental management plan.

3	CONTROLLING SEDIMENT LEAVING SITE
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PBG site staff will heavily monitor the subcontractor's plant and machinery entering and leaving the construction site. When plant and machinery are leaving site with effected tyres, tracks and/or bodywork the following methods will be implemented;

- Cattle Grids and/or ballast installed to site exits
- Water / hose available to thoroughly clean
- Street sweeper/ cleaner available to clean any sediment taken onto the roadways

Furthermore, PBG will continually monitor the adequacy of installed silt controls such as silt fences, geofabric and eco logs etc.

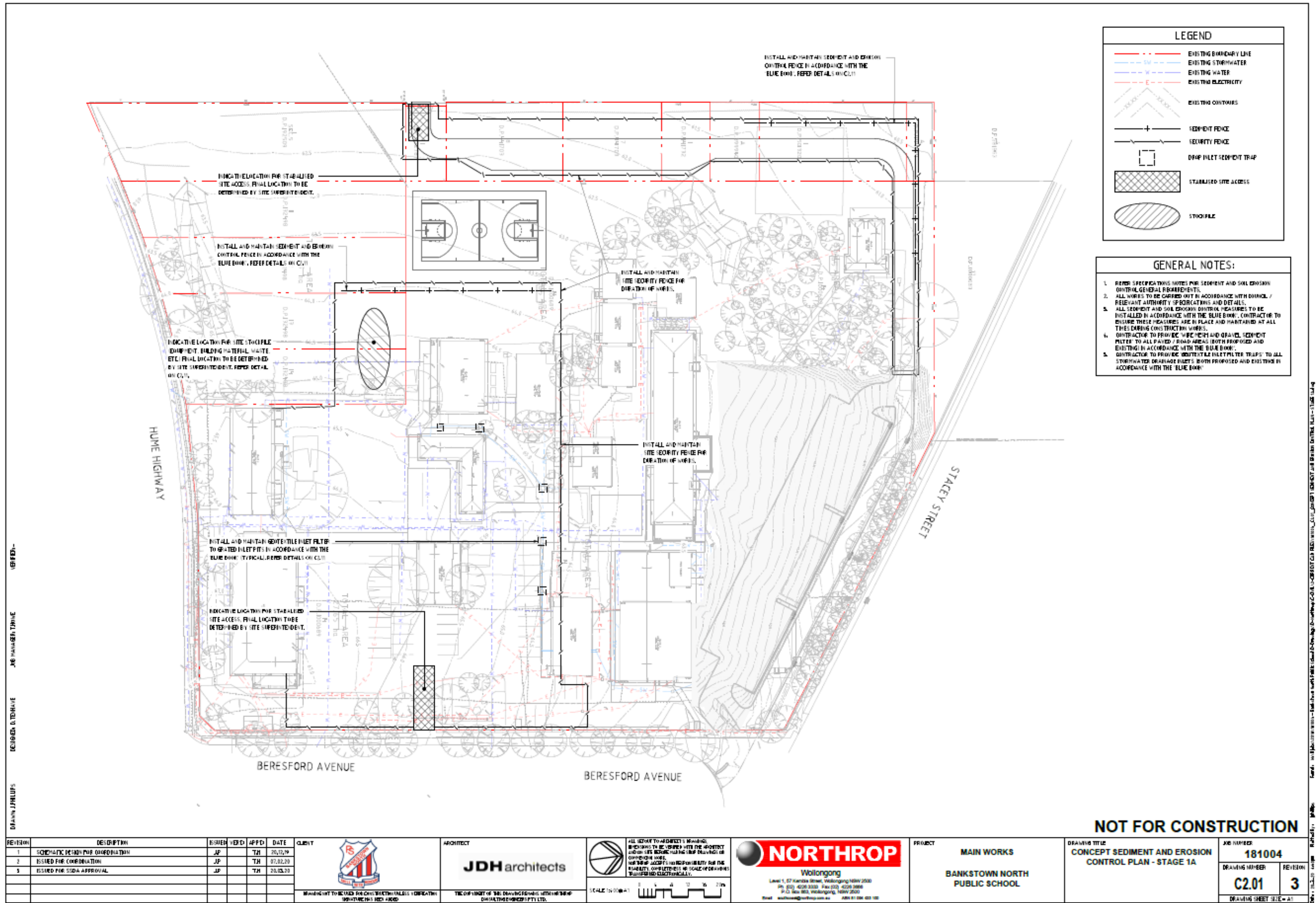
4	EROSION & SEDIMENT CONTROL PLANS
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PBG will comply with the Section 120 of the Protection of the Environment Operations Act 1997 during the construction works of this project. All no stage will water or construction waste be discharged into the stormwater system, with control measures to be implemented in accordance with in accordance with the 'Blue Book' - Managing Urban Stormwater: Soils & Construction (4th edition, Landcom 2004) .

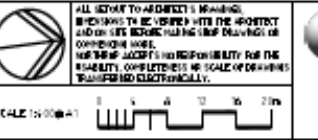
The existing stormwater drainage system will be protected prior to construction works commencing and will be monitored and maintained during the construction programme. Site inspections are conducted on a weekly basis at minimum, or daily if changes, or new works occur onsite. Inspections are also undertaken before rain events to ensure ERSED controls are in place, and after rain events to undertake maintenance if required.

The ground levels to this project are very flat so there is low risk of erosion and sedimentation and downstream impacts, given the relatively flat ground erosion and sedimentation controls to be installed around the works poses a low risk for sedimentation pollution.

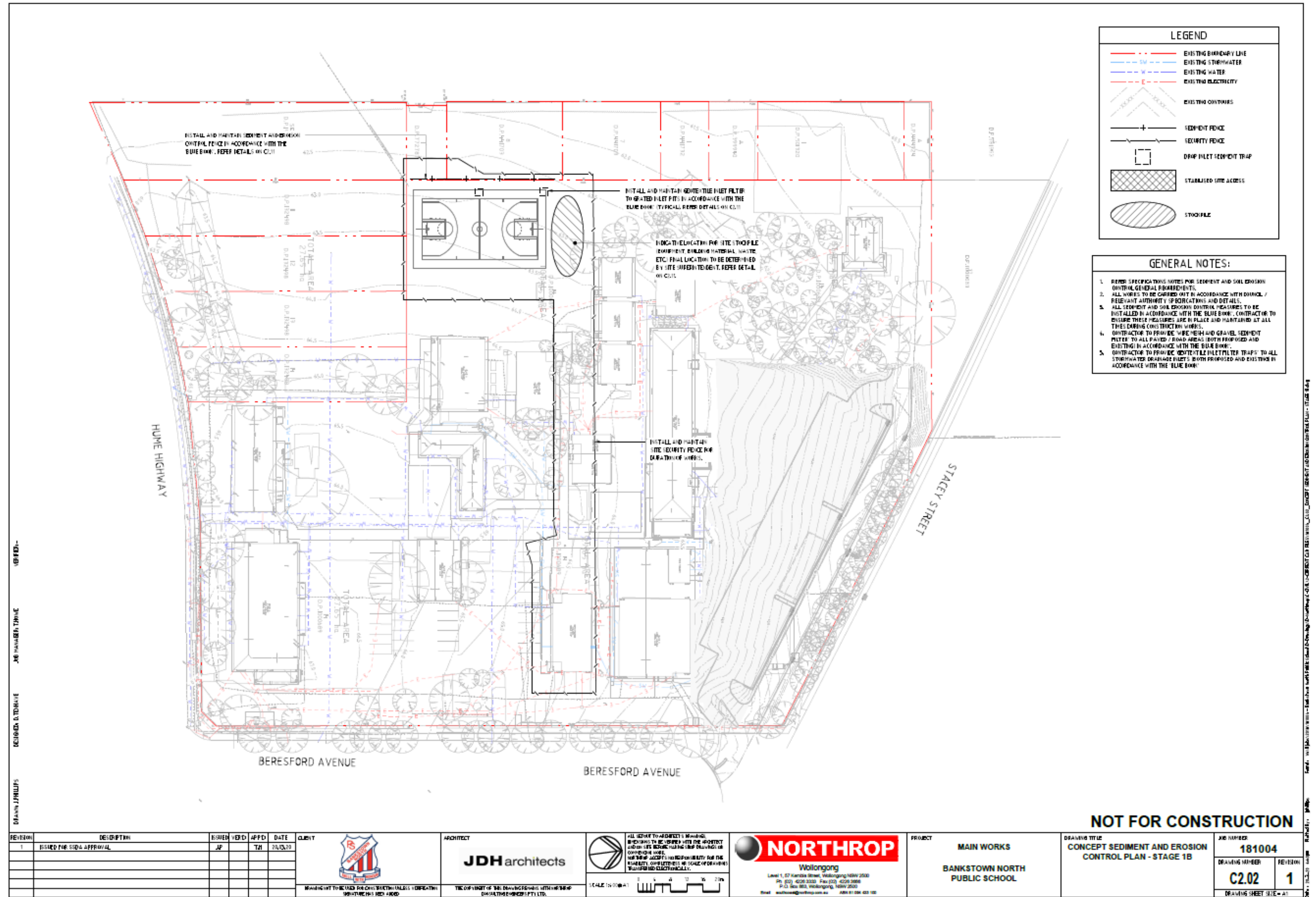
Please refer to the following pages for detailed ERSED plans & details prepared by Northrop Civil.



REVISION	DESCRIPTION	ISSUED	VERIFIED	APPROVED	DATE
1	SCHEMATIC DESIGN FOR COORDINATION	JP	TJH		20/12/19
2	ISSUED FOR COORDINATION	JP	TJH		07/02/20
3	ISSUED FOR SDA APPROVAL	JP	TJH		23/03/20



DRAWING TITLE	JOB NUMBER
CONCEPT SEDIMENT AND EROSION CONTROL PLAN - STAGE 1A	181004
DRAWING NUMBER	REVISION
C2.01	3
DRAWING SHEET SIZE = A1	



STOCKPILES (SD 4-1)

CONSTRUCTION NOTES

1. CONSTRUCT SEDIMENT FENCING AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE. FIT WITH SHARP SECTIONS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A SHARP DEEP TRENCH ALONG THE UP-SLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE US METRE LONG STAR PICKETS INTO GROUND AT 0.5 METRE INTERVALS (MAX) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FOR SELF-SUPPORTING GEOTEXTILE TO THE UP-SLOPE, THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH FOR THE GEOTEXTILE WITHIN THEM OR AS REQUIRED BY THE MANUFACTURER, ONLY USE SELF-SUPPORTINGLY PROMOTED FOR SEDIMENT FENCING. THE USE OF SHADE CLATHRUM, THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A SHARP OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

CONSTRUCTION NOTES

1. PAVE WITH A SEEDMENT BARRIER MADE FROM GEOTEXTILE OR STRAW BALES.
2. FOLLOW STANDARD DRAWING 6-1 AND STANDARD DRAWING 6-2 FOR INSTALLATION PROCEDURES FOR THE STRAW BALE OR GEOTEXTILE. REPAIR THE RIVET SPACING TO 1 FEET CENTER.
3. IN HIGHWAYS, ARTIFICIAL SAND POINTS CAN BE CREATED WITH SANDBARS OR EARTH BANKS AS SHOWN IN THE DRAWING.
4. DO NOT COVER THE INLET WITH GEOTEXTILE UNLESS THE DESIGN IS ADEQUATE TO ALLOW FOR ALL WATERS TO BYPASS IT.

[illegible]

Diagram illustrating a geotextile filter fabric wrapped filter grate. The diagram shows runoff water with sediment entering a vertical filter assembly. The water passes through a geotextile filter fabric wrapped around a filter grate, resulting in filtered water. A detailed view of the filter grate is shown, labeled as "EXISTING PROPOSED FILTER GRATE AS SPECIFIED".

REVISIONS	CONSTRUCTION NOTES:
	1. STRIP THE TOPSOIL, LEVEL THE SITE AND COMPACT THE SUBGRADE. 2. COVER THE AREA WITH HDPE-LINED GEOTEXTILE. 3. CONSTRUCT A 300mm THICK PAD OVER THE GEOTEXTILE USING ROAD BASE OR 30mm AGGREGATE. 4. ENSURE THE STRUCTURE IS AT LEAST 5 METRES LONG OR TO BUILDING ALIGNMENT AND AT LEAST 3 METRES WIDE. 5. WHERE A SEDIMENT FEED JOINS INTO THE STABILISED ACCESS, CONSTRUCT A HUMP IN THE STABILISED ACCESS TO DIVERT WATER TO THE SEDIMENT FEED.

REVISION	DESCRIPTION	ISSUED BY	APP'D	DATE
1	SCHEMATIC DESIGN FOR CONSTRUCTION	JP	TJH	20.12.19
2	ISSUED FOR CONSTRUCTION	JP	TJH	07.02.20
3	ISSUED FOR SDA APPROVAL	JP	TJH	20.03.20



WARNING: NOT TO BE USED FOR CONSTRUCTION UNLESS A DEEPER
SIGNATURE HAS BEEN ADDED

JDH architects

THE COPYRIGHT OF THIS DRAWING REMAINS WITH MR B
CONSULTING ENGINEERS PTY LTD.

ALL RETURN TO ARCHITECT'S HANDLING.
MEMORANDUM TO BE VIEWED WITH THE ARCHITECT
AND THE SITE BEFORE MAKING ANY CHANGES OR
COMMENCING WORK.
NOTHING ACCEPTS NO RESPONSIBILITY FOR THE
VIABILITY, COMPLETION OR SCALE OF DESIGN
TRANSFERRED ELECTRONICALLY.

NOT TO SCALE



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PROJECT	MAIN WORKS
	BANKSTOWN NORTH PUBLIC SCHOOL

DRAWING TITLE SEDIMENT AND EROSION CONTROL DETAILS

JOB NUMBER	181004	
DRAWING NUMBER	C2.11	REV
DRAWING SHEET COUNT	1 OF 1	

NOT FOR CONSTRUCTION

5	MANAGEMENT OF SITE DURING WET-WEATHER EVENTS
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To mitigate approaching storms and the like, PBG will implement swale runs and water catchment areas to hold large portions of water and seal stockpiles utilising geofabric covering. The swale cuts will reduce the speed of the water and guide the water to the holding areas, eliminating the chances of travelling off site uncontrolled.

All drains and controls to be inspected before (if possible) and after rainfall to ensure controls are adequate Controls such as: hay bales, eco logs, silt socks to all water egress paths. In the instance that water does travel off site uncontrolled, PBG will have all drains covered with geofabric and silt socks placed in all active gutters to drop sediment out of the water.

All materials and equipment will be placed in appropriate locations such as hard stands and/or bitumen for stability purposes. Pending the amount of rainfall and impact to grounds, a Geotech may be required for inspection, the site manager will determine if this inspection is required.

Furthermore, from review of Canterbury-Bankstown Council's Flood Risk Management Plan, it can be concluded that the site is of a low risk to flooding (including potential to be affected by a 1 in 5-year Average Rainfall flood event) therefore the standard control measures defined within this plan are deemed sufficient.

Refer to the civil erosion and sediment control plans in section 4 for further information

6	COMPLIANCE
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SSDA Approval Compliance (SSD-10290):

B18. The Applicant must prepare a Construction Soil and Water Management Sub-Plan (CSWMSP) and the plan must address, but not be limited to the following:

- ≡ be prepared by a suitably qualified expert, in consultation with Council; - **HSEQ Manager – Chris Sposito**
- ≡ measures to ensure that sediment and other materials are not tracked onto the roadway by vehicles leaving the site; - **Section 3**
- ≡ describe all erosion and sediment controls to be implemented during construction, including as a minimum, measures in accordance with the publication Managing Urban Stormwater: Soils & Construction (4th edition, Landcom 2004) commonly referred to as the 'Blue Book'; - **Section 4**
- ≡ provide a plan of how all construction works will be managed in a wet-weather events (i.e. storage of equipment, stabilisation of the Site); - **Section 5**
- ≡ detail all off-Site flows from the site; and – **Section 2**
- ≡ describe the measures that must be implemented to manage stormwater and flood flows for small and large sized events, including, but not limited to 1 in 5-year ARI.- **Section 5**

Statutory Requirements:

Describe all erosion and sediment controls, describe how construction works will be managed within wet weather events, detail off site flows from site, describe measures that are to be implemented to manage large rainfall occurrences.

Limits & Performance Measures:

All erosion and sediment controls are to be visually managed daily and inspected within the monthly environmental inspection. All employees made aware of soil and water management requirements

Specific Performance Indicators:

The following to be managed for duration of construction works;

- ≡ On site visual inspections of erosion & sediment controls

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- ≡ Maintain physical swales and catchment areas
 - ≡ Maintain water catchment areas
 - ≡ Available storage areas during wet weather

Measures Used to Comply with Statutory Requirements:

- ≡ Complete frequent environmental inspections
- ≡ Maintain sediment controls and environmental housekeeping Maintain records for any impacts encountered

Monitoring & Reporting:

- ≡ Daily visual monitoring and monthly environmental inspections will be implemented to monitor environmental impacts. Maintained within site diary.
- ≡ Inspections conducted before and after rain downfall
- ≡ Management of effectiveness will be captured under the monthly environmental inspections and current site sediment controls. If impacts continue, PBG to conduct internal audit on methods to improve soil water management and implement all selected corrective measures

Managing & Reporting Incidents & Complaints:

- ≡ All incidents and/or non-compliances that may arise will be documented and the client will be notified immediately on the same business day. This will be documented within the site diary or under the environmental checklist.
- ≡ Complaints can be received on a site level from surrounding occupants If the issue is not of serious nature the construction team will close out this complaint appropriately If the complaint is of serious nature this will be elevated to the client immediately. This would be documented/responded to in fortnightly client meetings and/or monthly PCG reports.
- ≡ Failure to comply with statutory requirements would result in an immediate NCR and review possibility of terminating contract.

Periodic Review:

The Soil Water Management Sub-Plan will be reviewed on a 6 monthly basis to find any ways to improve the current performance This review will be documented within the site diary & PMP Review & Amendments section.

Areas to be reviewed include;

- ≡ Weekly & Monthly environmental inspections and audits,
- ≡ Site functioning and cleanliness,
- ≡ Prior impacts
- ≡ Prior incidents

Furthermore. PBG will review performance of soil and water management thus far via gathering and analysing:

- ≡ Environmental inspections, environmental checklists and audits,
- ≡ Performance during inclement weather patterns.
- ≡ Affects post inclement weather patterns,
- ≡ Impacts to surrounding stakeholders and community.