NORTH SYDNEY PUBLIC SCHOOL

State Significant Development Application (SSDA) – Stormwater Management Report

SINSW

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Contents

Appendices

Figures

Tables

1 INTRODUCTION

Aurecon have been commissioned to investigate and report on the civil engineering, servicing and stormwater requirements pertaining to the proposed alteration and additions to the existing North Sydney Public School. The proposed layout plan is shown on the Fulton Trotter's Architectural Plans in Appendix A.

The proposal entails:

- Demolition of the existing hall (building B), haven building (building C) and 6 temporary buildings;
- Construction of a three storey building comprising:
  - staff administration rooms;
  - 16 homebases
  - a new library;
  - hall;
  - out of school hours care facilities;
  - covered outdoor learning area;
  - bicycle parking and end of trip facilities for staff; and
  - services, amenities and access.
- New entry gate and forecourt from Bay Road;
- Internal refurbishment of building G ground floor from the existing library to 3 homebases;
- Capacity for an increase in student numbers from 869 to 1,012; and
- Associated tree removal, landscaping and excavation.

The proposal maintains:

- The gates and fence of former Crows Nest House including the entrance from Pacific Highway and Bay Road;
- Existing gate along McHatton Street;
- The outdoor play area to the east of Building A;
- Existing covered outdoor learning area adjacent to Building A;
- The basketball courts and staff carpark in the western portion of the site;
- The significant tree planting on all school boundaries;
- Buildings A, D and F noting minor internal refurbishments are being undertaken outside of the SSDA scope of work (exempt development) to improve student amenities and canteen; and
- Building G noting ground floor internal refurbishment is proposed in the SSDA.

The following document reports on the existing and proposed civil works and infrastructure required as part of the proposed development. This document also reports on the stormwater quantity and quality management investigation relating to the proposed development. The engineering requirements for this proposal shall be in accordance with the North Sydney Council Development Control Plan (2013), North Sydney Council Performance Guide, and North Sydney Council Infrastructure Specification Guide 2021.

This report outlines preliminary design methodology and calculations in support of a State Significant Development Application (SSDA) and should be read in conjunction with other documents issued by the consultant team.

The SSDA has been prepared to meet the Secretary's Environmental Assessment Requirements (SEARS) due to North Sydney Public School's delegation as a Critical State Significant Infrastructure (CSII) project.

Relevant SEARS Key issues:	Report Reference
15. Stormwater Drainage	4 STORMWATER MANAGEMENT PLAN
16. Flooding	2.3 TOPOGRAPHY AND SITE DRAINAGE
17. Soil and Water	3.3 EROSION AND SEDIMENT CONTROL PLAN (ESCP)

Table 1-1 SEARS

2 SITE CHARACTERISTICS

2.1 LOCATION

The development site is located in North Sydney and is bound by McHatton Street to the north, Pacific Hwy to the east, Bay Road to the south and residential properties to the west. Refer to Figure 1 below for locality details.

Street Address:	182 Pacific Highway, North Sydney
RP Description:	Lot 1 DP 183591, Lot 1 DP 184559

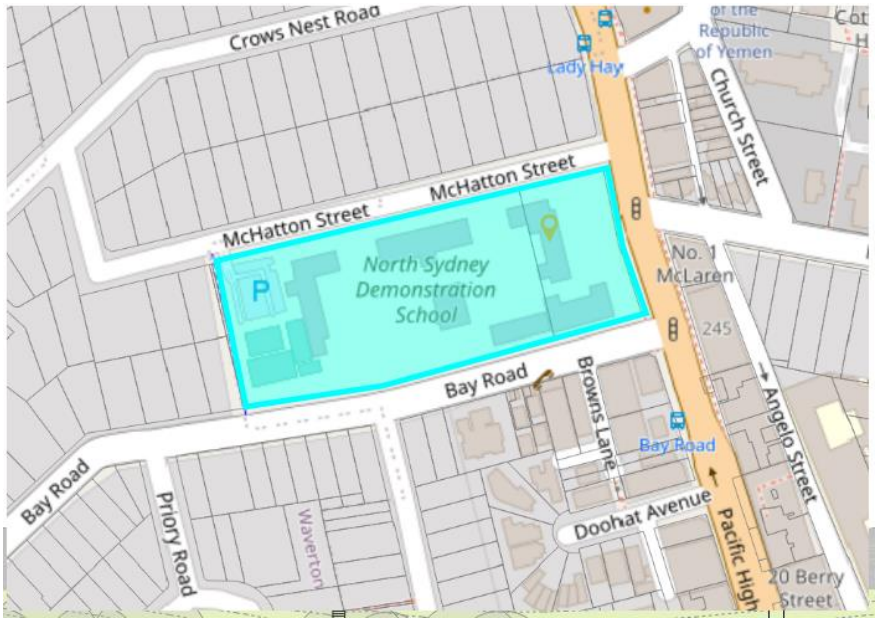

Figure 1 Locality Plan (Source: North Sydney Council)

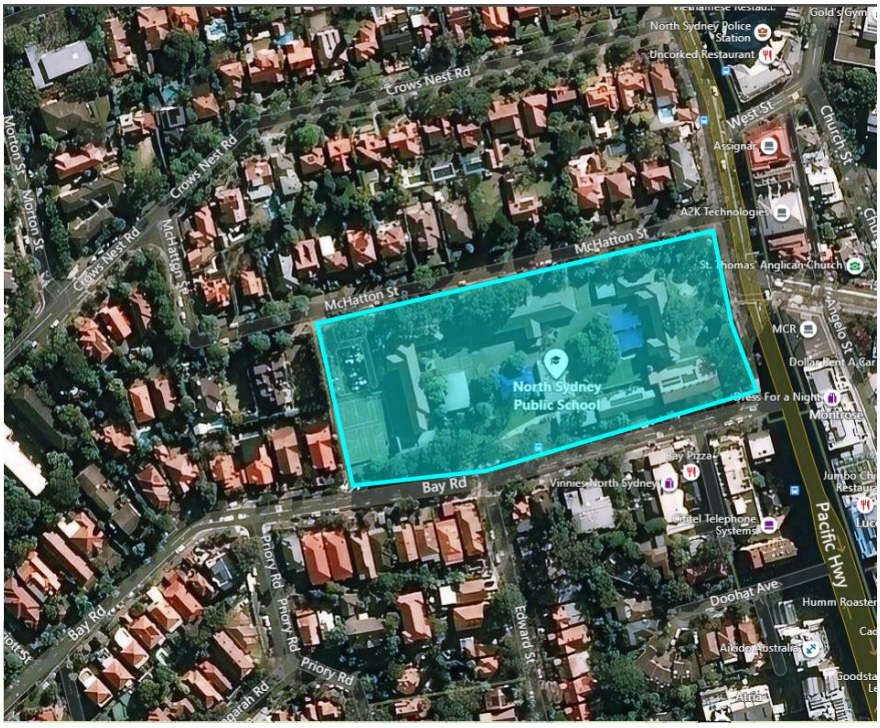

Figure 2 Satellite View (Source: Bing Maps)

2.2 PACSITE DESCRIPTION

The school site comprises of two lots with a total area of 1.94ha. The development site is a portion of the existing school, comprising of approximately 0.33ha. The development site currently hosts buildings, play areas, synthetic stepped areas and footpaths. The remainder of the site is covered with grasses, shrubs, and several trees. Refer to Appendix B for detailed survey.

2.3 TOPOGRAPHY AND SITE DRAINAGE

The property to be developed falls at an approximate, average grade of 7.8%. The high point in the northeast corner is at approximately RL 86.95 m grading down to the southwest to the existing heritage gates at approximately RL 80.43m. The majority of site runoff generated currently drains via the existing infrastructure through the site and discharges to the concrete channel located to the south of the site. Refer to the site survey information in Appendix B.

The external catchment draining through the site has been omitted from drainage design at this stage, as North Sydney Council (NSC) planning policy requires on-site detention tanks to be sized only for the development area. Existing upstream catchment areas are catered for through dedicated overland flows diverted around the proposed works to reduce the risk of inundation to the new buildings on the site.

Figure 3 Flood Awareness Map – Q_{100} (Source: WMA Water Flood Study)

A TUFLOW model was conducted by WMA Water on behalf of North Sydney Council in 2017 to provide a flood study report. The results from the flood study indicate that the site is not impacted by creek flooding. Refer to the Flood Awareness Map in Figure 3 . The modelling outputs were incorporated into the civil design, specifically the stormwater drainage, and earthworks requirements.

Although there is no creek flooding, North Sydney Public School has informed Aurecon that the heritage wall is subject to overtopping and discharging onto Bay Road. To counteract this issue, it was proposed that overland flow paths of the upstream catchments have been diverted around the development site via channel drains as shown on the civil plans in Appendix C.

3 EXISTING AND PROPOSED CIVIL WORKS AND INFRASTRUCTURE STORMWATER

3.1 STORMWATER

3.1.1 Existing Infrastructure

There are numerous stormwater pits that service the development site as detailed in Appendix B. However, the survey does not detail the stormwater pipes and their connection points. Site inspections conducted by Aurecon showed that there are low retaining walls running through the school to channel overland flow into the pits. Refer to Figure 4 for an image of the retaining walls.

Figure 4 Low retaining walls

There is existing North Sydney Council drainage infrastructure in the vicinity of the site. Refer to Figure 5 for details.

Figure 5 Existing Stormwater Infrastructure (Source: North Sydney Council)

3.1.2 Proposed Infrastructure

It is proposed that an internal stormwater pit and pipe drainage network be constructed to collect and capture all roof water and pavement runoff. The pipe network will convey runoff through the developed portion of the school grounds, then through the proposed detention basin and discharge into the existing pit on Bay Road, adjacent to the heritage gate entrance. Refer to Appendix C for the layout.

The proposed drainage network will also incorporate stormwater quality improvement devices to prevent pollutants from contaminating the downstream environment. This will include:

- Litter baskets in each pit to act as a gross pollutant trap (GPT), and
- Ocean Protect '690mm Stormfilter' (or similar) to act as a tertiary treatment system.

Refer to the Stormwater Management Plan in Section 4 of the report for further information on the drainage conditions pre and post development.

3.2 EARTHWORKS

The existing site levels range from 86.95m AHD in the northeast down to 80.43m AHD in the southwest near the heritage gate. Earthworks will be required to construct level building pads, minor retaining walls and to create appropriate courtyard and road grades.

Fill is required to provide equitable access to the level 2 courtyard and COLA. It will be constructed on a building pad with a finished floor level of RL 86.40m. This will be balanced by the cut required on the street level to achieve an average floor level of RL 82.80m.

There are minor retaining walls that will being used as part of the landscape and play areas to allow for the changes in level. Refer to Fulton Trotter's Architectural Plans in Appendix A. A preliminary bulk earthworks plan has been developed to outline the extents of cut and fill and confirm the likely volumes of earth movement. Refer to Appendix C for bulk earthworks plans.

A detailed earthworks plan will be prepared as a part of the detailed design operational works lodgement. All earthworks will be undertaken in accordance with North Sydney Council Erosion and Sediment: Control for Urban Development Guidelines and NSC DCP Section 17: Erosion and Sediment Control.

3.3 EROSION AND SEDIMENT CONTROL PLAN (ESCP)

A comprehensive Erosion and Sediment Control Plan (ESCP), including a construction process will be developed in further detail post SSDA prior to the commence of works. The ESCP designs will be in accordance with the International Erosion Control Association (IECA) and Section 17 of the North Sydney Council Development Control Plan (2013).

A preliminary ESCP has been prepared and documents inlet pit protections, sediment fencing, and a stabilised site entry. Refer to Appendix C for the preliminary ESCP.

The final ESCP will demonstrate that stormwater leaving the site is of a compliant standard for the appropriate design storm, minimised when that design storm is exceeded, and meets NSC DCP (2013) requirements.

4 STORMWATER MANAGEMENT PLAN

4.1 STORMWATER OBJECTIVES

Under the NSC Development Control Plan 2013, several design elements were identified in relation to stormwater management issues. North Sydney Council must be satisfied that:

- The proposed development can be drained;
- The stormwater management system can follow the features and functions of the natural drainage system;
- Stormwater discharge is reduced;
- The stormwater drainage disposal has no adverse effect on any surrounding properties or receiving waters; and
- Stormwater quality is improved using water sensitive urban design (WSUD) measures.

All stormwater discharges will comply with North Sydney Council's Performance Guide and Infrastructure Specification Manual.

4.2 STORMWATER QUANTITY

4.2.1 Lawful Point of Discharge

Under existing conditions, stormwater runoff within the development site drains through the existing infrastructure to the concrete channel to the south of the site. The proposed lawful point of discharge will be the existing pit on Bay Road, adjacent to the heritage gate. Refer to Appendix C for locality.

4.2.2 Stormwater Drainage Methodology

Modelling of stormwater runoff quantity from the development site (North Sydney Public School) has been setup to compare the existing case and proposed development case scenarios. Modelling of the stormwater and drainage characteristics for each scenario has adopted industry standard techniques as specified in the Australian Rainfall and Runoff 2019 (ARR), NSC DCP (2013) and the Queensland Urban Drainage Manual (QUDM). The drainage modelling software package DRAINS has been used in this assessment to give a simple representation of stormwater flows both within the drainage infrastructure and in overland flow paths.

The modelling included an analysis of the peak discharges from the development to assess the potential for the proposed development to adversely impact Bay Road and the surrounding downstream properties.

The assessment has been completed by isolating the development area and estimating a likely increase in peak discharge using a preliminary calculation method rational method. The rational method was chosen to be a simplified method for preliminary calculations. These parameters were then modelled in DRAINS using an ILSAX hydrological model.

4.2.3 Preliminary Peak Flow Calculations

The Rational Method, as outlined in the Queensland Urban Drainage Manual (QUDM), is an industry standard technique, and was used to determine the preliminary peak flow rates corresponding to the minor and major storm events for the development site and the surrounding local catchment. The following design storm events for this development included:

Minor	- 20% AEP	(1 in 5-year ARI)
Major (overland flow)	- 1% AEP	(1 in 100-year ARI)

The internal pit and pipe networks will be designed to accommodate the minor and major storm events. The preliminary calculations to assess the efficiency of the drainage network is detailed below.

Fulton Trotter's Architectural plans were used to determine the fraction impervious for the development site. The existing case condition was estimated to be 73% impervious and was increased to 93% for the developed case.

The fraction impervious values were then converted to C_{10} values using Table 4.05.3(a) in QUDM.

Table 4-1 Existing Case vs Development Case Peak Flow Calculations

	Parameter	Existing Catchment	Developed Catchment	Difference
Catchment Details	Area (Ha)	0.33	0.33	0.000
	Fraction Impervious (fi)	73%	93%	+20%
	Coefficient of Runoff (C10)	0.85	0.89	+ 0.04
	Time of Concentration (min)	5.0	5.0	-
	10% AEP Rainfall Intensity (mm/hr)	148	148	0.00
Peak Flow	39% AEP Discharge (m^3/s)	0.068	0.071	0.003
	10% AEP Discharge (m^3/s)	0.117	0.122	0.05
	5% AEP Discharge (m^3/s)	0.143	0.149	0.06
	2% AEP Discharge (m^3/s)	0.186	0.191	0.05
	1% AEP Discharge (m^3/s)	0.215	0.215	0.00

4.2.4 Preliminary Analysis of Potential for Adverse Impacts

As indicated within Table 1 above, the estimated peak discharges for the developed case are similar to the values of the existing case. This is because the existing site is 73% impervious and there is only a small increase in fraction imperviousness of the developed scenario.

To assess the impact of the relevant drainage infrastructure, with consideration to local surrounding contributing catchments, a DRAINS stormwater model was developed. Refer to the following section for details.

4.3 DRAINS Modelling

To gain a more comprehensive insight into the increased downstream flow conditions, a DRAINS model has been developed for two case scenarios:

- Existing case (representing North Sydney Public School in its current state without changes)
- Developed case (representing the proposed development of North Sydney Public School)

The existing case and developed cases have been setup to isolate and compare the influence of the development of North Sydney Public School, and the potential for impacts on the receiving pit on Bay Road.

4.3.1 Model Setup – Existing Case

The model adopted estimated parameters to reflect contributing sub catchments drainage features based available digital information including, survey, reports, drawings and a site visit. An ILSAX hydrological model is built into the 2019 version of the software for processing design rainfall information and generating flows. Design rainfall information for the Waverton area was downloaded from the Bureau of Meteorology (BOM) data hub, and rainfall intensities, depths and temporal patterns were put into the model.

The detailed survey provided has insufficient information, therefore, it is difficult to accurately model the existing infrastructure and their peak discharges. Instead, the peak discharge for the existing scenario assumed that the existing site was one large catchment.

The model input parameters adopted for catchments and a detailed schematic of model setup is given in sections 4.3.2. Refer to Figure 6 for existing case model layout.

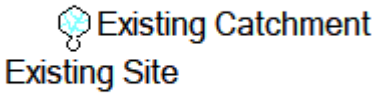

Figure 6 DRAINS model layout used for existing scenario analysis

4.3.2 Model Input Parameters – Existing Case

Using survey data and civil drawings of the site, catchment areas were determined. Site catchment area and its fraction impervious have been pre-determined as discussed above in section 4.2.3. External catchments have been omitted from this analysis due to insufficient site survey information and it is not in the current scope of works. See Table 4-2 for catchment details contributing to the relevant infrastructure and flow paths

Table 4-2 Drains Catchment area summary

Properties	Existing Catchment
Catchment Area (ha)	0.33
Fraction Impervious (f_i) (Existing) %	73
Time of Concentration – Impervious (t_c) (mins)	5

Time of concentration for each catchment area was determined using the rational method and QUDM, Table 4.06.1 *Recommended standard inlet times*. Once these were set, fraction impervious was determined for each catchment area in both pre and post development stages.

4.3.3 Model Setup – Developed Case

The model adopted for the developed case estimated parameters based off preliminary design to reflect contributing sub catchments and drainage features based available digital information including, detailed survey, reports, drawings and a site visit. The same ILSAX hydrological model is used for this case for processing design rainfall information and generating flows.

The developed model was structured to be able to estimate peak discharges at key locations including:

- From each of the sub-catchment areas that contribute flow (Refer to Figure 7)
- At the OSD outlet pipe.

Refer to Figure 7 for the developed case DRAINS model layout.

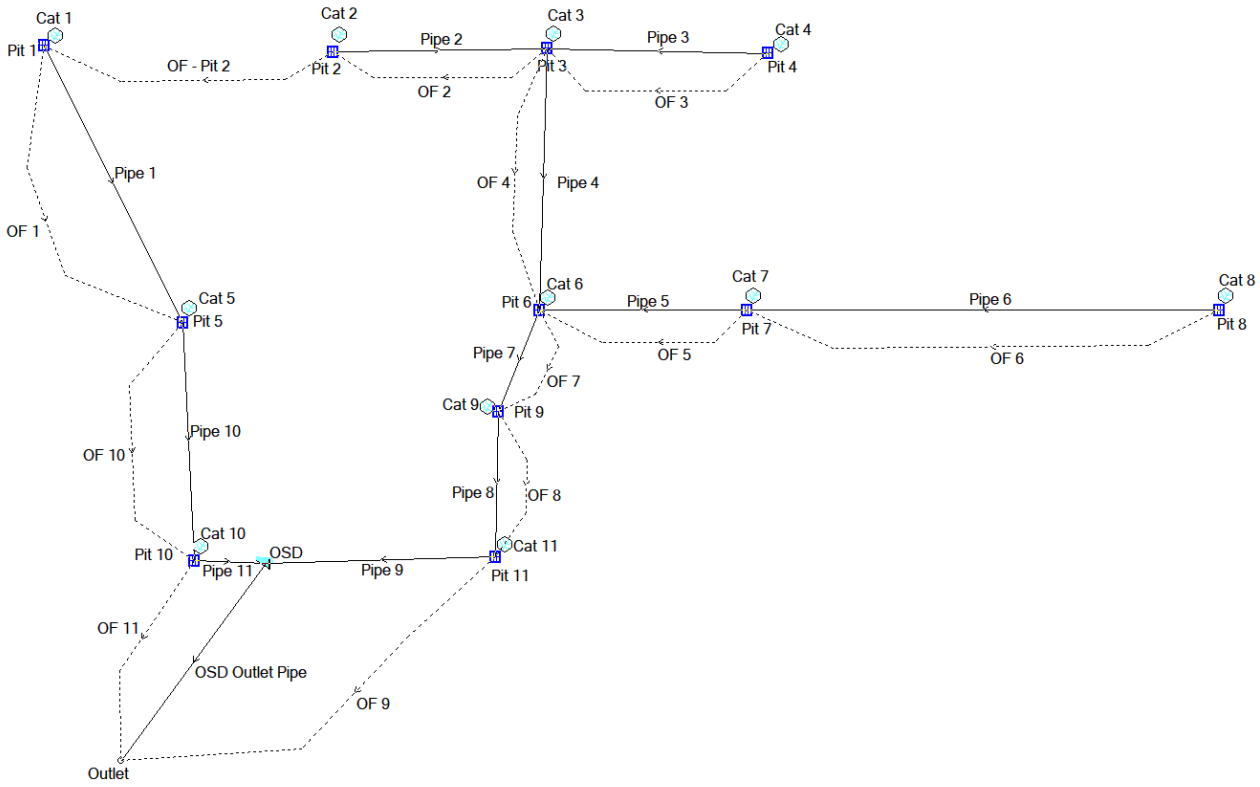

Figure 7 Proposed Stormwater Drainage Layout (Developed Case)

Table 4-3 shows the breakdown of catchment areas (relating to Figure 7) for the developed scenario.

Table 4-3 Catchment Area Summary

Catchment	Catchment Area (ha)
1	0.05
2	0.322
3	0.0266
4	0.0147
5	0.0221
6	0.0359
7	0.0393
8	0.0545
9	0.0274
10	0.0171
11	0.0142
Total	0.33

4.3.4 Modelled Peak Discharges

There were two case models established for analysis, an existing case, and a developed case to evaluate the effect on the peak discharge in the outlet pipe. The primary differences in model inputs were the

breakdown of sub-catchments in the developed scenario and the fraction imperviousness for the developed site catchment areas. Comparison of results from these scenario models were analysed for major and minor storm events. Peak discharges are shown for all pipes in Figure 9.

North Sydney Council has informed Aurecon that maximum discharge from an on-site detention (OSD) tank must not exceed the peak discharge that occurs during a 1 in 5-year storm event under existing conditions. The OSD must also retain stormwater runoff for all storm events up to a 1 in 100-year storm and facilitate the slow release into the external drainage network.

4.3.5 On-site Stormwater Detention (OSD)

The OSD was proposed to retain stormwater runoff during major storm events and control the outlet flow rate into the external drainage network.

Detention Outlet Arrangement

The proposed OSD is a concrete tank with a volume of 99m^3. It was sized using general best practice principles as North Sydney Council does not have specific design guidelines for OSD sizing. The storage capacity is modelled as follows:

Table 4-4 Detention Stage Storage

Depth (m)	RL Depth (m)	Surface Area (m^2)
0	80.5	55.125
1.8	82.3	55.125

Detention Outlet Arrangement

The outlet arrangement modelled included an orifice plate in order to control the outlet flowrate during minor and major storm events. The outlet arrangement was a 190mm diameter orifice plate in a 225mm diameter pipe from the detention basin at invert level of 80.5m. The efficiency of the system is discussed in Section 4.3.6.

4.3.6 Existing Case vs Developed Case Modelling Results

The following figures indicate the peak catchment discharges and water levels of the two scenarios.

Figure 8 Existing case peak discharges

Figure 8 shows the peak discharge that occurs during a 1 in 5-year storm event for the existing case. This value indicates that the outlet discharge rate for the developed scenario must not exceed 104L/s to be compliant with council standards.

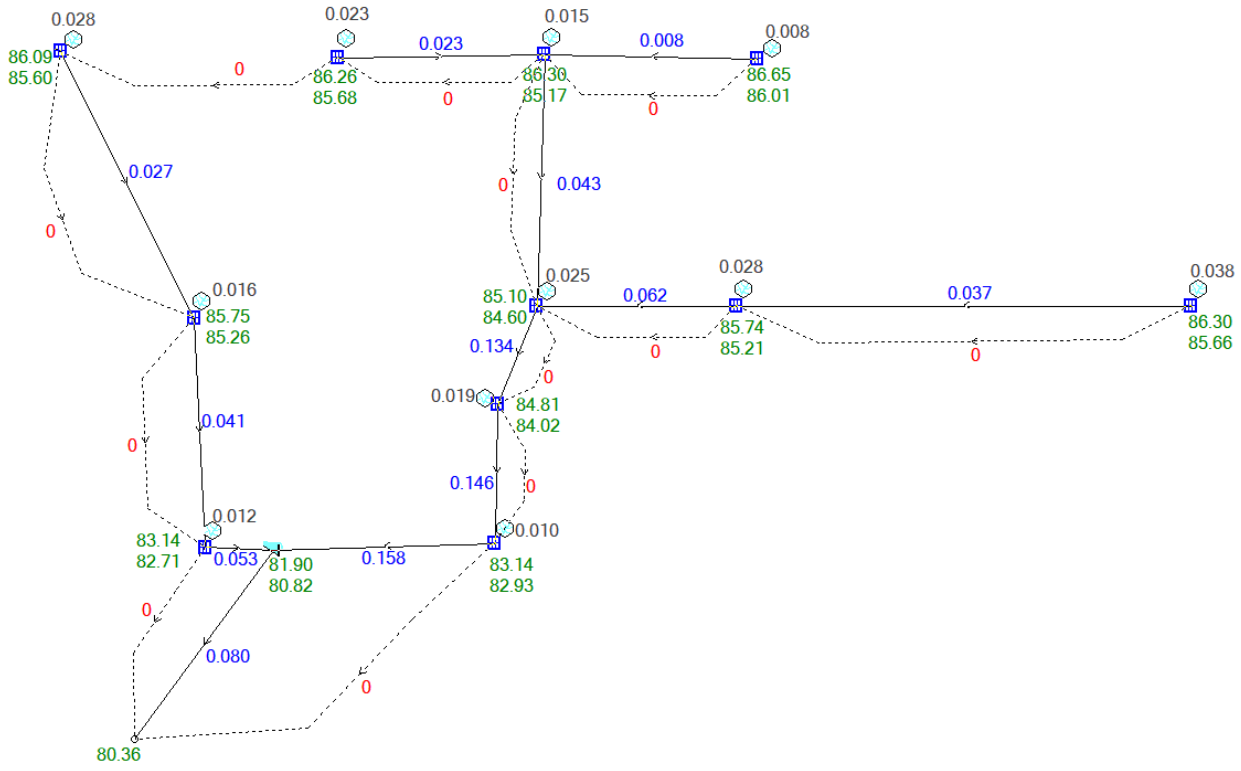

Figure 9 Simplified Developed Case maximum water levels & peak discharges

Notes: The green values are the peak water levels at each node, blue represents the peak flow rates in each conduit and the red values represent overflows exceeding the capacity of the primary conduit (i.e. overland flow)

Figure 9 depicts the peak discharge rates for the developed case during a 1 in 100-year storm event. The discharge rate of interest is the OSD Outlet Pipe (Refer to Figure 7). This model shows that the outlet discharge rate is 80L/s. The DRAINS model indicates that this OSD is sufficient for the proposed development as the outlet flow rate is less than the maximum 104L/s which occurs during the existing scenario. This is compliant with NSC standards.

Peak Flow Mitigation

The resulting discharge flow rates from the system downstream for the assessed storm events are as follows:

Table 4-5 Peak Discharge Summary

Case	Discharge (L/s)
Existing Case (20% AEP)	104
Developed Case (1% AEP)	80
Difference	24

As shown in Table 4-5, the addition of the detention system into the development proposal effectively mitigates the peak discharges for all storm events as required. With a 1% AEP storm, the detention system effectively mitigates excess stormwater from flowing onto Bay Road. This adheres to North Sydney Council DCP (2013), as there are adequate detention measures proposed to prevent an increase in downstream flooding and discharges. It must be noted that this detention is not designed to accommodate any future developments.

4.4 STORMWATER QUALITY

All references to water quality designs and requirements have been made to North Sydney Council Development Control Plan (2013), and the North Sydney Council Erosion and Sediment – Control for Urban Development.

4.4.1 Development Control Plan – Water Quality

The DCP guidelines with respect to water quality for assessment of the SSDA has been addressed. These guidelines will assist in assessing the water quality requirements for the site. The assessment benchmarks for Water Quality outlined in Section 2: Commercial and Mixed Use Development of the NSC DCP 2013 describes when the policy is applicable;

"*All developments with a gross floor area greater than 2000m^2 are to undertake a stormwater quality assessment to demonstrate that the development will achieve the post-development pollutant standards indicated"*

The proposed development is greater than 2000m^2 and will require stormwater treatment measures to comply with Section 2 of the NSC Development Control Plan.

All references to water quality designs and requirements have been made to North Sydney Council Development Control Plan 2013, North Sydney Council Ecologically Sustainable Development Best Practice Project, and the reference material – Water by Design: MUSIC Modelling Guidelines.

4.4.2 Pre-Construction

Prior to the commencement of any construction activities, the following measures need to be implemented to ensure minimal disturbance and adverse water quality impacts. These measures may be adopted in a staged approach.

- Provision of sediment fences to the perimeter of the construction area as required.
- Nominate specific areas for plant and construction material storage.
- Diversion of upstream stormwater runoff around disturbed areas of the development as required.
- Immediate stabilisation of disturbed areas as required.
- Designation and marking of transport routes across the site to minimise dust disturbance.
- Provision of rock pad or shaker grid on the site's construction exit.
- Provision of stormwater inlet protection devices to existing stormwater inlet structures within the site, and within the roadways immediate downstream of the site.
- Education of site personnel to the sediment and erosion control measures implemented on site.

4.4.3 Construction Phase

The siteworks will be contained within the property limits. Sediment generated during the construction phase shall be dealt with in accordance with an Erosion and Sediment Control Plan to be maintained and kept on site during the construction phase.

The following erosion and sediment control measures are proposed to mitigate water quality impacts during construction:

- Prior to the release of any stormwater from the site, water quality samples are to be taken and analysed.
- Monitoring of stormwater quality discharging from the development and the implementation of additional measures / modification of existing measures if the quality of stormwater discharging from the site will have a negative impact. The quality of any stormwater released from the site is to meet the NSC's stormwater quality standards.
- Construction activities are to be limited to the designated construction area(s).

- Regular inspection and maintenance of the erosion control measures. Following rainfall events greater than 20 mm, inspection of erosion control measures and removal of collected material shall be undertaken. Replacement of any damaged equipment shall be performed immediately.
- Monitoring of water quality impacts from construction activities as appropriate. Any erosion and sediment control devices that are not performing adequately to meet NSC standards are to be replaced or supplemented with additional measures.

Erosion and sediment control drawings will be provided during detailed design phase.

4.4.4 Post-Construction Phase

Pollutants of concern

The minimum Water Quality Objectives (WQO's) are specified in NSC DCP - Section 2. The key pollutants to be targeted and the minimum pollutant concentration removal objectives described are summarised in the table below:

Table 4-6 North Sydney Council's Water Quality Objectives

Pollutants	WQO's
Total Suspended Solids	85%
Total Phosphorus	65%
Total Nitrogen	45%
Gross Pollutants	90%

Modelling Assessment Approach

A quantitative assessment of stormwater runoff quality has been undertaken for the operational phase of the development. The predicted future (operational phase) load reductions of key pollutants has been conducted using the "Model for Urban Stormwater Improvement Conceptualisation" (MUSIC). MUSIC is a stormwater quality modelling program that provides estimates of stormwater pollution generation and the performance of stormwater management measures used in series or parallel to form a 'treatment train'.

Input parameters and required Water Quality Objectives (WQOs) specific to the North Sydney region were adopted in accordance with the Water by Design MUSIC Modelling Guidelines and the NSC Infrastructure Specification Guide.

Meteorological Data

The first step in creating the MUSIC model was to select the appropriate meteorological data set (period and time step) to be used as the basis for the runoff algorithms. The built in MUSIC Link data was used to specify the rainfall data into the model.

Source Nodes

The second step taken in creating the MUSIC model was to define 'Source Nodes' or Sub-Catchments. Source nodes for modelling the catchments were defined as per the Water by Design MUSIC Modelling Guidelines.

The subject development has been identified as a commercial site and has been modelled as such. The model consisted of two types of Commercial source nodes:

- Source nodes representing roof areas
- Source nodes representing pavement and landscaping

Treatment Nodes

The following treatments are to be implemented as part of the internal drainage network to provide stormwater quality treatment for the proposed development. Details of the Stormwater Quality Best Management Practices (SQBMP) adopted for the development are outlined in Table 4-7.

Table 4-7 SQBMP Selection Matrix

SQBMP Description	Discussion
Secondary Treatment: - OceanGuard (GPT)	A gross pollutant trap (GPT) is a treatment device designed to capture coarse sediment, trash and vegetation matter in stormwater runoff. This will be implemented as OceanGuard pit inserts.
Tertiary Treatment: - Ocean Protect - 690mm Phosphosorb Stormfilter	The PSorb stormfilter tertiary treatment system is implemented inside the concrete detention tank. It removes nutrients and sediments amongst other pollutants from stormwater runoff prior to discharge.

The removal rates and overall effectiveness of the proprietary devices have been tested extensively by the manufacturer and the treatment effectiveness have been accepted in other surrounding development applications. The PSorb Stormfilter system effectiveness is determined by the MUSIC model based on inputs which were developed specifically for this project, in line with the recommendations provided by Ocean Protect.

Proposed Treatment Train

The stormwater quality improvement devices (SQUIDs) were selected to target each of the pollutants of concern and was subsequently incorporated into the development site layout. This treatment train is illustrated in Figure 10. The treatment train was then modelled in MUSIC to determine its efficacy.

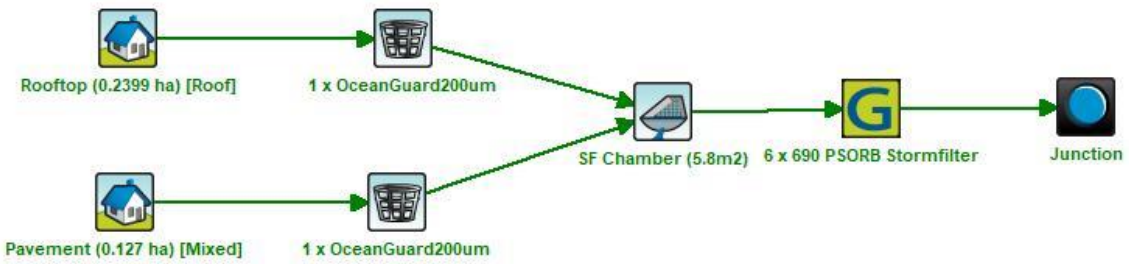

Figure 10 Proposed Treatment Train

Results

The pollutant export removal rates for the developed phase obtained from the MUSIC model and analysis are tabulated below.

Table 4-8 Pollutant Removal Rates Discharge

Pollutant	TSS (%)	TP (%)	TN (%)	GP (%)
Treatment Train Effectiveness	90.6	69.8	50.6	100
NSC WQOs	85.0	65.0	45.0	90.0

Indicated in Table 4-8 Pollutant Removal Rates Discharge, the removal rates for the target pollutants; total suspended solids (TSS), total phosphorus (TP), total nitrogen (TN) and gross pollutants (GP), are all above the water quality objectives stipulated in the North Sydney Council Development Control Plan (2013).

On this basis, the treatment train proposed for the development will yield satisfactory pollutant removal to satisfy the requirements of the NSC DCP (2013).

5 PLANNING CODES

5.1 NORTH SYDNEY COUNCIL DEVELOPMENT CONTROL PLAN (2013)

The relevant North Sydney Council Policies with respect to engineering aspects for assessment of the SSDA have been addressed. They will assist in assessing operational works requirements. The codes addressed in this report are:

- North Sydney Council Development Control Plan
  - Section 2: Commercial and Mixed-Use Development
  - Section 17: Erosion and Sediment Control
  - Section 18: Stormwater Management
- North Sydney Council Infrastructure Specification Guide
- North Sydney Council Performance Guide
- North Sydney Council – Erosion and Sediment: Control for Urban Development

This report has addressed and met the requirements of the above policies and guidelines.

6 CONCLUSIONS

From the investigations conducted, it has been shown that the proposed development of North Sydney Public School, North Sydney can be developed in accordance with North Sydney Council Development Control Plan (2013). The following points summarise the findings and recommendations:

- Significant earthworks and some retaining structures are required for the construction of each level building pad.
- An internal drainage system will be provided which will capture and convey all stormwater drainage to an internal detention system. The detention system will comprise of 99 m^3. The detention system arrangement and size has been designed to ensure no increase in peak discharge from the development site from the existing to developed scenarios in accordance with NSC DCP Section 18: Stormwater Management.
- Stormwater quality treatment will be provided in the way of gross pollutant trap(s) and an Ocean Protect Phosphosorb Stormfilter (or similar).

7 ASSUMPTIONS AND LIMITATIONS

- This assessment represents an approximation of risk relating to the potential for adverse impacts associated with development creating additional stormwater runoff. Modelling of drainage paths and infrastructure is approximate in nature and does not represent a detailed analysis of the hydraulic characteristics.
- All presented results are subject to the assumptions and limitations of the software used, which can be subject to change over time as modelling software is updated and best practice methods change.
- The representation of overland flow paths, particularly the catchments beyond the development site, is subject to further investigation. No detailed ground survey was taken for the existing site.
- The catchment imperviousness and flow path routing through the school site are based on current conceptual architectural arrangements and must be updated once final layouts and drainage design has been completed to ensure the stormwater quality and quantity systems perform as intended.

Appendix A Fulton Trotter's Architectural Plans

NORTH SYDNEY PUBLIC SCHOOL

FOR NSW DEPARTMENT OF EDUCATION / SCHOOL INFRASTRUCTURE NSW

7068WA01

SD0000	TITLE PAGE	A
SD-1001	EXISTING & DEMOLITION SITE PLAN	E
SD-1002	PROPOSED SITE PLAN	E
SD-1003	SITE ANALYSIS PLAN	A
SD-1101	TREE RETENTION PLAN	A
SD-1102	CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN	A
SD-1103	STREETSCAPE ELEVATIONS & SCHOOL SIGNAGE	A
SD-1104	SITE SECTIONS 01	C
SD-1105	SITE SECTIONS 02	C
SD-1106	EXTERNAL MATERIALS & FINISHES	A
SD-1107	PERSPECTIVES	A
SD-1108	SHADOW DIAGRAMS	A
SD-1301	STAGING PLANS	A
SD-2001	BUILDING J - LEVEL 1 FLOOR PLAN	F
SD-2002	BUILDING I - LEVEL 1 FLOOR PLAN	F
SD-2003	BUILDING J - LEVEL 2 FLOOR PLAN	F
SD-2004	BUILDING I - LEVEL 2 FLOOR PLAN	F
SD-2005	BUILDING I - LEVEL 3 FLOOR PLAN	F
SD-2006	BUILDING J - ROOF PLAN	F
SD-2007	BUILDING I - ROOF PLAN	F
SD-2012	BUILDING G - LEVEL 1 FLOOR PLAN	D
SD-3001	BUILDING I & J - ELEVATION 01	F
SD-3002	BUILDING I & J - ELEVATION 02	F
SD-3003	BUILDING J - ELEVATION 03	F
SD-3004	BUILDING I - ELEVATION 04	F
SD-3101	BUILDING I & J - SECTION 01	A
SD-3102	BUILDING I & J - SECTION 02	A
SD-3103	BUILDING J - SECTION 03	A
SD-3104	BUILDING I - SECTION 04	A

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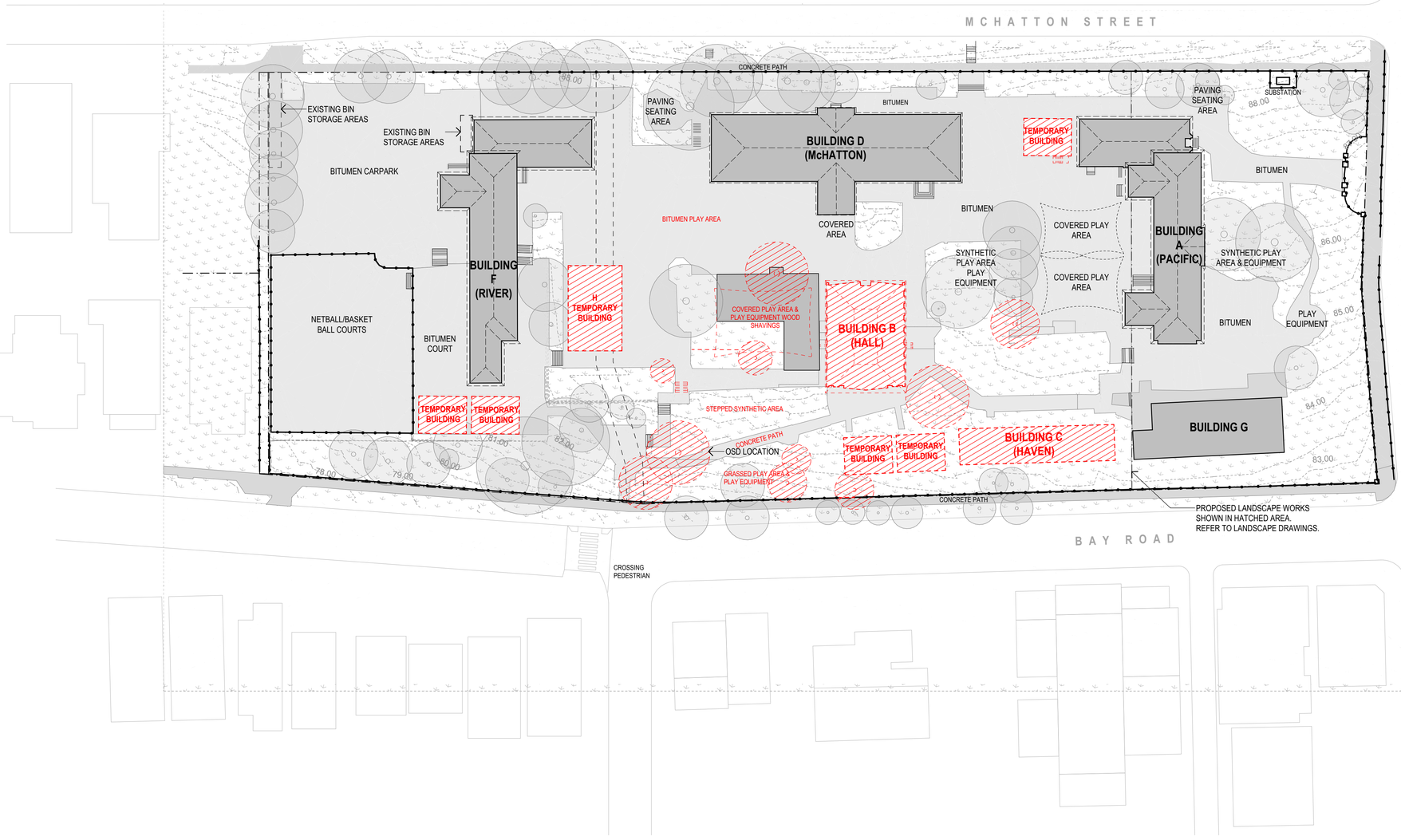
plot date: Monday, 16 August 2021, 10:04 AM

file location: BIMcloud: SYDBIM23 - BIMcloud Basic for ARCHICAD 23/7068WA01 - North Sydney Public School Upgrade

EXISTING SITE PLAN LEGEND

- EXISTING BUILDINGS
- EXISTING PAVING
- ROOF LINE (ABOVE)
- EXISTING LANDSCAPING
- ELEMENTS TO BE DEMOLISHED
- EXISTING FENCING
- EXISTING TREES
- TREES TO BE REMOVED
- EXISTING SITE CONTOURS (500MM)



1 PLAN
DEMOLITION SITE PLAN
SCALE: 1:500

50 100 150mm @ A1

REV.	DESCRIPTION	DATE	INIT.
A	CONSULTANT COORDINATION ISSUE	02/08/2021	BN
B	REVISED FACADE ISSUE	06/08/2021	BN
C	CONSULTANT COORDINATION ISSUE	09/08/2021	JH
D	CONSULTANT COORDINATION ISSUE	11/08/2021	JH
E	Draft SSDA Issue	13/08/2021	BN

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Paul Sekava raia NSW 7180 QLD 3108
Paul Trotter fraia NSW 7177 QLD 2646
Ryan Loveday raia QLD 4500

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PHASE: **SCHEMATIC DESIGN**

CLIENT: NSW DEPT OF EDUCATION (SCHOOLS INFRASTRUCTURE)

PROJECT: NORTH SYDNEY PUBLIC SCHOOL

ADDRESS: BAY ROAD
WAVERTON, NSW

DRAWING: **EXISTING & DEMOLITION SITE PLAN**

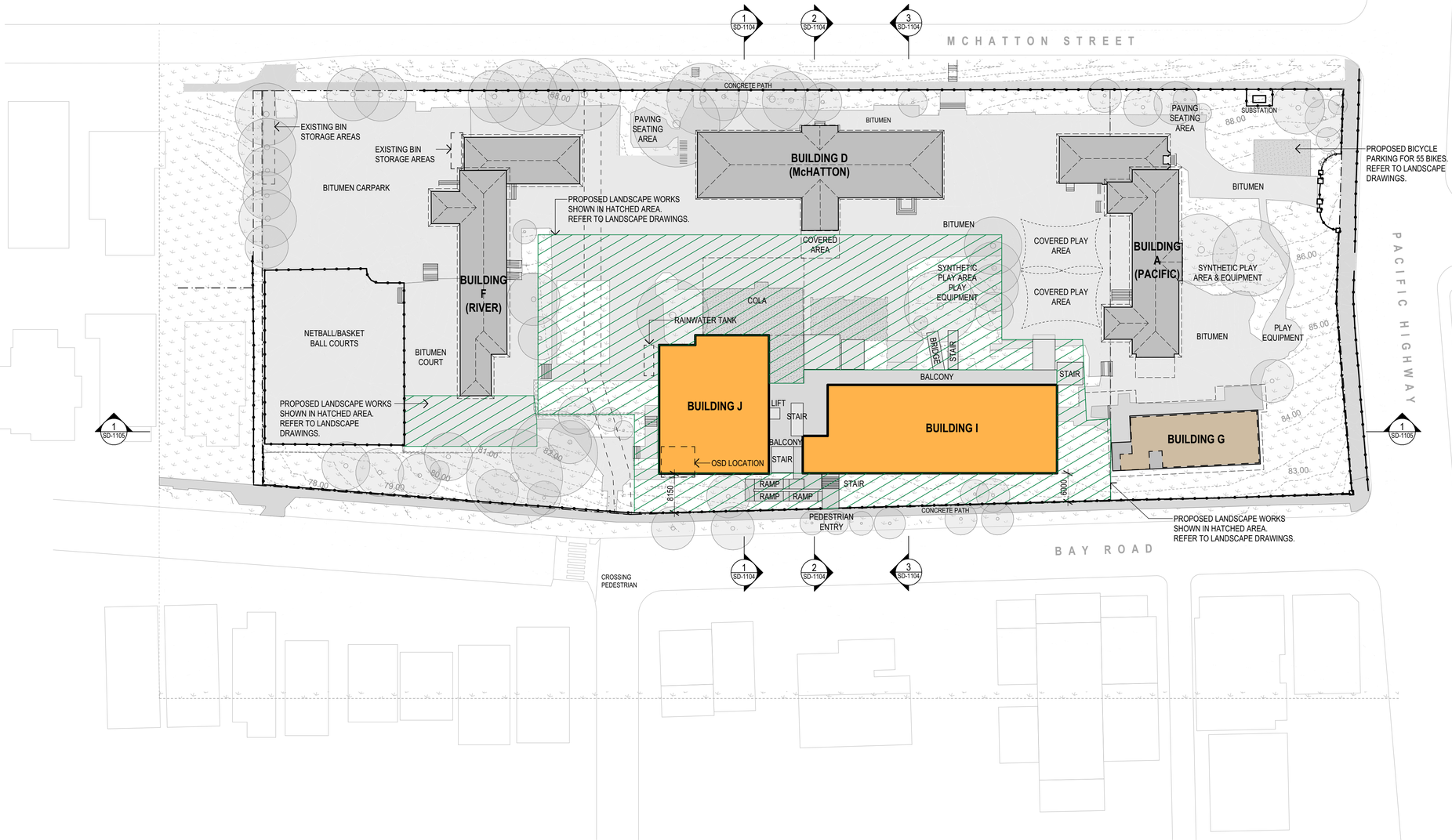
Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

DRAWING NUMBER	REVISION
SD-1001	E

PROPOSED SITE PLAN LEGEND

- EXISTING BUILDINGS
- PROPOSED BUILDINGS (SSDA)
- ROOF LINE (ABOVE)
- WORKS UNDER OTHER APPROVALS (CDC / EXEMPT DEVELOPMENT)
- EXISTING PAVING
- PROPOSED PAVING
- EXISTING LANDSCAPING
- PROPOSED LANDSCAPING
- EXISTING FENCING
- PROPOSED FENCING
- EXISTING TREES
- PROPOSED TREES
- 0.000 EXISTING SPOT LEVEL
- 0.000 PROPOSED SPOT LEVEL



1 PLAN
PROPOSED SITE PLAN
SCALE: 1:500

150mm @ A1 | 100 | 50

REV.	DESCRIPTION	DATE	INIT.
A	CONSULTANT COORDINATION ISSUE	02/08/2021	BN
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Paul Trotter fraia		NSW 7177	QLD 2646
Ryan Loveday raia			QLD 4500

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CLIENT: NSW DEPT OF EDUCATION (SCHOOLS INFRASTRUCTURE)

PROJECT: NORTH SYDNEY PUBLIC SCHOOL

ADDRESS: BAY ROAD
WAVERTON, NSW

DRAWING: PROPOSED SITE PLAN

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7068WA01	JW	

DRAWING NUMBER: SD-1002

REVISION: E

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SITE ANALYSIS LEGEND

- VEHICLE ACCESS
- PEDESTRIAN ACCESS
- SUN
- BREEZE
- HEAT
- VIEW
- PLAY SPACE
- HERITAGE FENCE
- HERITAGE GATE
- BUILDING CONDITION
  - GOOD
  - FAIR
  - POOR
  - DEMOUNTABLE

SUMMER
WINTER
JUN 21 > 3PM
JUN 21 > 9AM
DEC 21 > 3PM
DEC 21 > 9AM
HOT WESTERLY SUMMER HEAT
COLD WINTER WINDS
COOL SUMMER BREEZES
TRAFFIC NOISE
PACIFIC HIGHWAY
MCHATTON STREET
BAY ROAD
MAIN PEDESTRIAN ENTRY
PEDESTRIAN ENTRY
HERITAGE GATE
CONCRETE PATH
EXISTING BIN STORAGE AREAS
BITUMEN CARPARK
PAVING SEATING AREA
BITUMEN
BUILDING D (McHATTON) HERITAGE BUILDING
TEMPORARY BUILDING
BUILDING A (PACIFIC) HERITAGE BUILDING
BUILDING F (RIVER) HERITAGE BUILDING
H TEMPORARY BUILDING
EASEMENT
BITUMEN PLAY AREA
TOTAL EXISTING PLAY SPACE APPROX 9750m²
COVERED AREA
COVERED PLAY AREA
SYNTHETIC PLAY AREA PLAY EQUIPMENT
SYNTHETIC PLAY AREA & EQUIPMENT
COVERED PLAY AREA & PLAY EQUIPMENT WOOD SHAVINGS
BUILDING B (HALL)
BUILDING G
BUILDING C (HAVEN)
NETBALL/BASKET BALL COURTS
BITUMEN COURT
PLAY EQUIPMENT
STEPPED SYNTHETIC AREA
OSD LOCATION
GRASSED PLAY AREA & PLAY EQUIPMENT
HERITAGE FENCE
PROPOSED LANDSCAPE WORKS SHOWN IN HATCHED AREA. REFER TO LANDSCAPE DRAWINGS.
ELEVATED VIEWS TO ANZAC BRIDGE & PARRAMATTA RIVER
ELEVATED VIEWS TO CITY
PEDESTRIAN CROSSING
PEDESTRIAN
COOL SUMMER BREEZES

1 PLAN
EXISTING SITE PLAN
SCALE: 1:500

150mm @ A1 | 100 | 50

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CLIENT: NSW DEPT OF EDUCATION (SCHOOLS INFRASTRUCTURE)

PROJECT: NORTH SYDNEY PUBLIC SCHOOL

ADDRESS: BAY ROAD
WAVERTON, NSW

DRAWING: **SITE ANALYSIS PLAN**

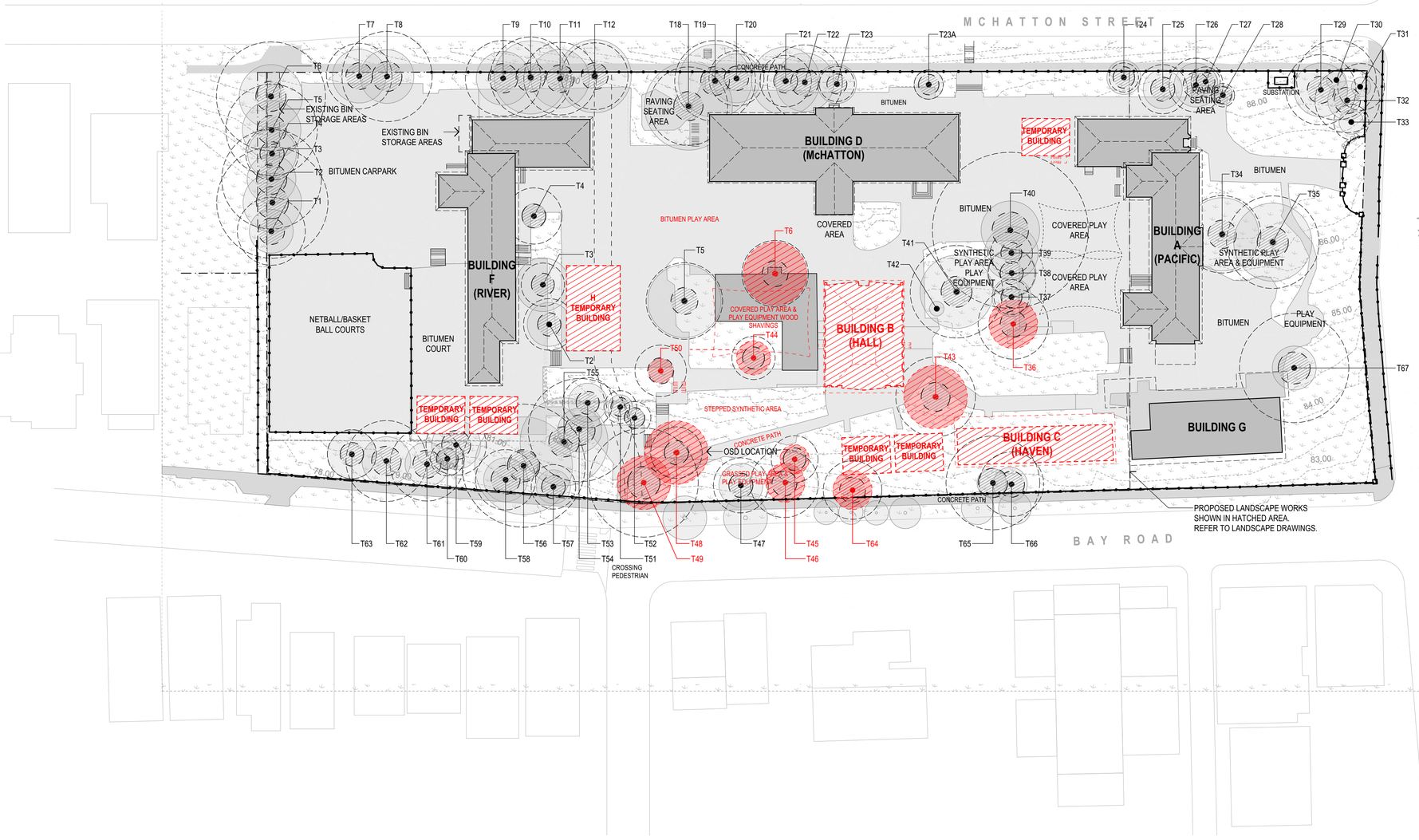
Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

DRAWING NUMBER	REVISION
SD-1003	A

TREE RETENTION PLAN LEGEND

- EXISTING TREES
- TREES TO BE REMOVED DUE TO PROPOSED BUILDING WORKS
- TREES TO BE REMOVED DUE TO CONDITION
- SRZ - STRUCTURAL ROOT ZONE
- TPZ - TREE PROTECTION ZONE



1 **PLAN**
TREE RETENTION PLAN
SCALE: 1:500

150mm @ A1 | 100 | 50

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PROJECT NORTH SYDNEY PUBLIC SCHOOL

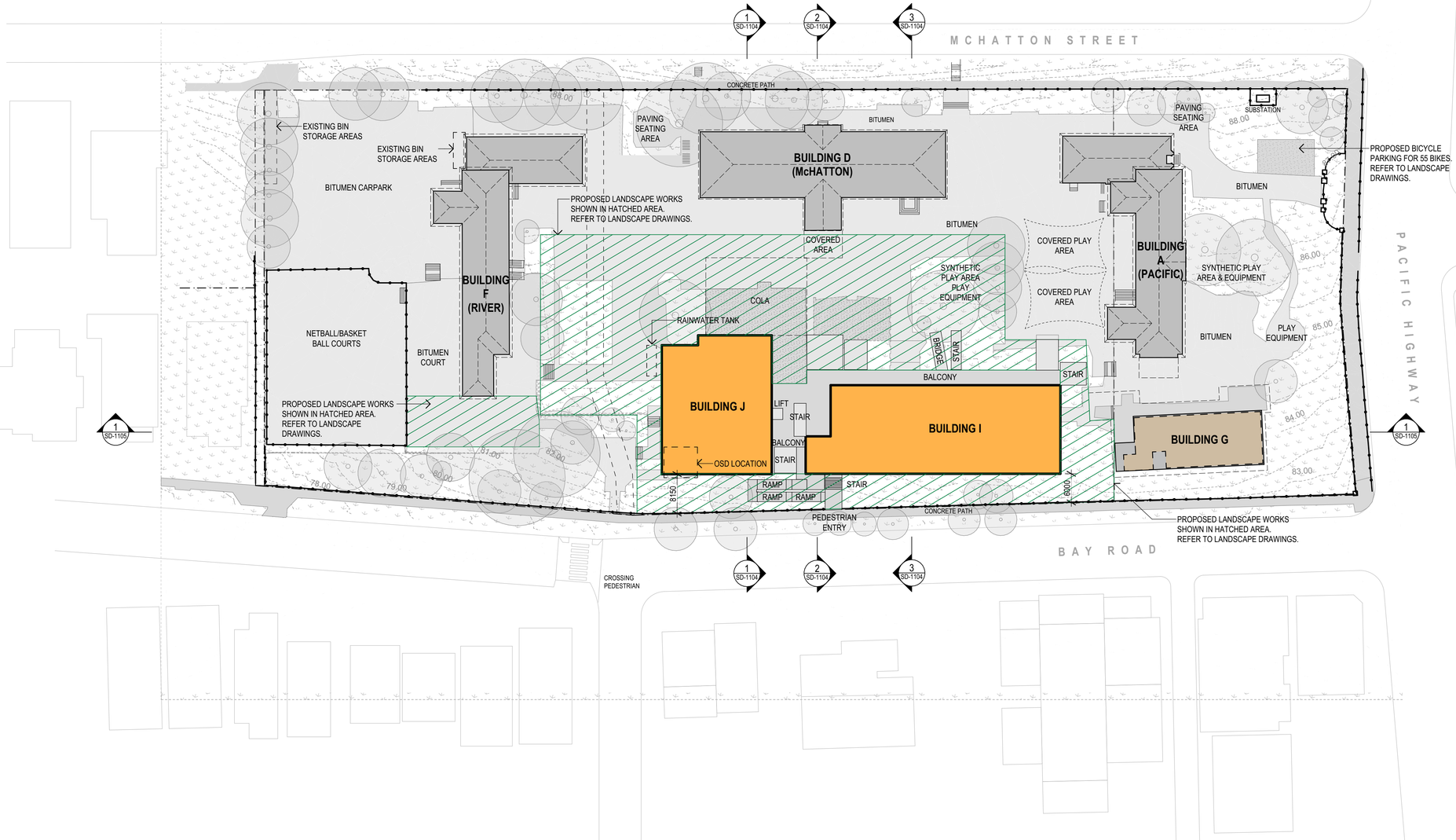
ADDRESS BAY ROAD
WAVERTON, NSW

DRAWING **TREE RETENTION PLAN**

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

DRAWING NUMBER	REVISION
SD-1101	A



CONSTR. MANAGEMENT LEGEND

- EXISTING BUILDINGS
- PROPOSED BUILDINGS (SSDA)
- WORKS UNDER OTHER APPROVALS (CDC / EXEMPT DEVELOPMENT)
- CONSTRUCTION ZONE *LAYOUT OF AREA TO BE DETERMINED BY BUILDER (INDICATIVE AREA SHOWN)*
- BUILDERS COMPOUND
- EXISTING TREES
- TREES TO BE REMOVED DUE TO PROPOSED BUILDING WORKS
- PROPOSED TREES
- SRZ - STRUCTURAL ROOT ZONE
- TPZ - TREE PROTECTION ZONE

NOTE: ALL EXISTING TREES THAT ARE TO BE RETAINED WITHIN THE STAGE 1 WORKS ZONE TO HAVE TRUNK/BRANCH WRAPPING AND SOIL PROTECTION TO ARBORIST SPECIFICATION.

- GEOTEXTILE INLET FILTER
- SEDIMENT CONTROL FENCING
- STORMWATER DRAINAGE
- MESH & GRAVEL INLET FILTER

1 PLAN
PROPOSED SITE PLAN
SCALE: 1:500

50 100 150mm @ A1

plot date: Monday, 16 August 2021, 10:04 AM

file location: BIMcloud: SYDBIM23 - BIMcloud Basic for ARCHICAD 23/7068WA01 - North Sydney Public School Upgrade

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CLIENT: NSW DEPT OF EDUCATION (SCHOOLS INFRASTRUCTURE)

PROJECT: NORTH SYDNEY PUBLIC SCHOOL

ADDRESS: BAY ROAD WAVERTON, NSW

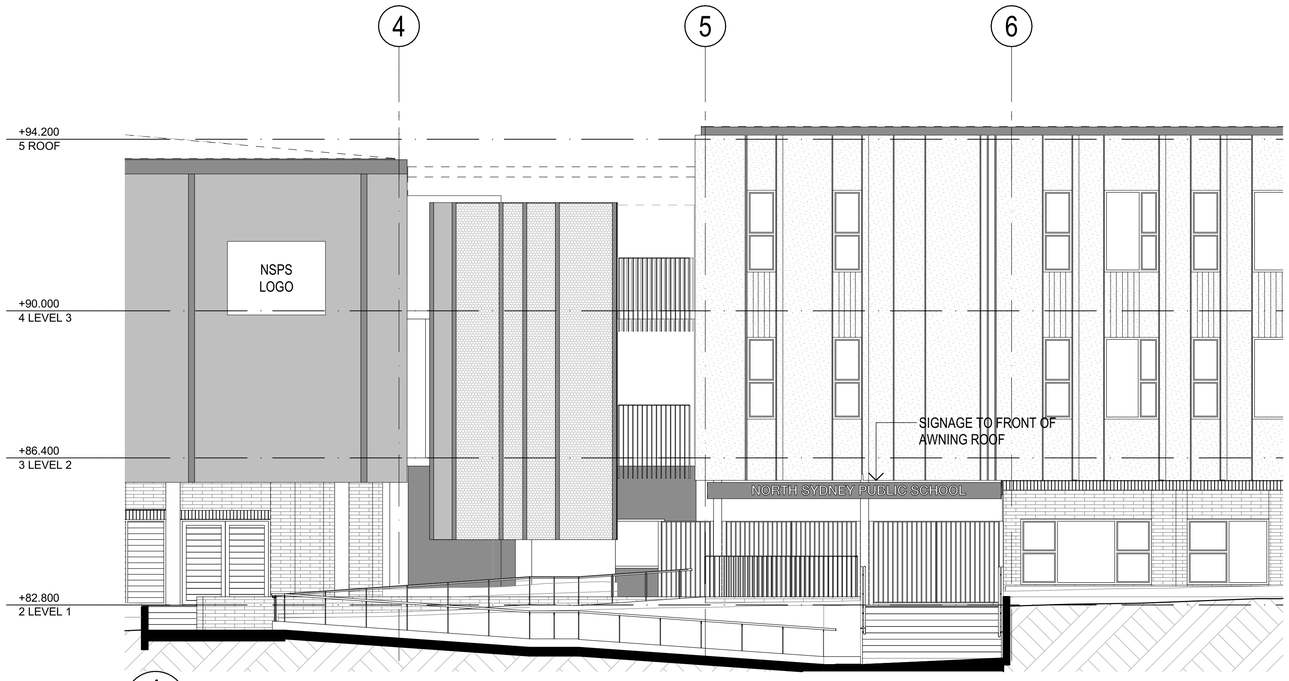
DRAWING: **CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN**

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

DRAWING NUMBER: **SD-1102**

REVISION: **A**



1 ELEVATION
ENTRY SIGNAGE
SCALE: 1:75

STREETSCAPE
NOT TO SCALE

REV.	DESCRIPTION	DATE	INIT.
A	Draft SSDA Issue	13/08/2021	BN

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CLIENT
NSW DEPT OF EDUCATION
(SCHOOLS INFRASTRUCTURE)

PROJECT
NORTH SYDNEY PUBLIC
SCHOOL

ADDRESS
BAY ROAD
WAVERTON, NSW

DRAWING
STREETSCAPE ELEVATIONS &
SCHOOL SIGNAGE

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

DRAWING NUMBER
SD-1103

REVISION
A

50 100 150mm @ A1

plot date: Monday, 16 August 2021, 10:04 AM
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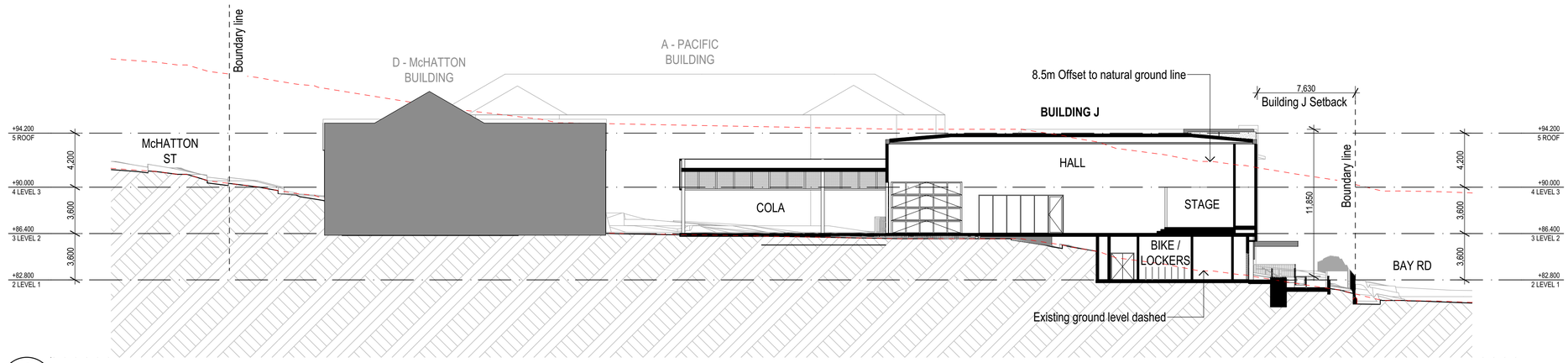
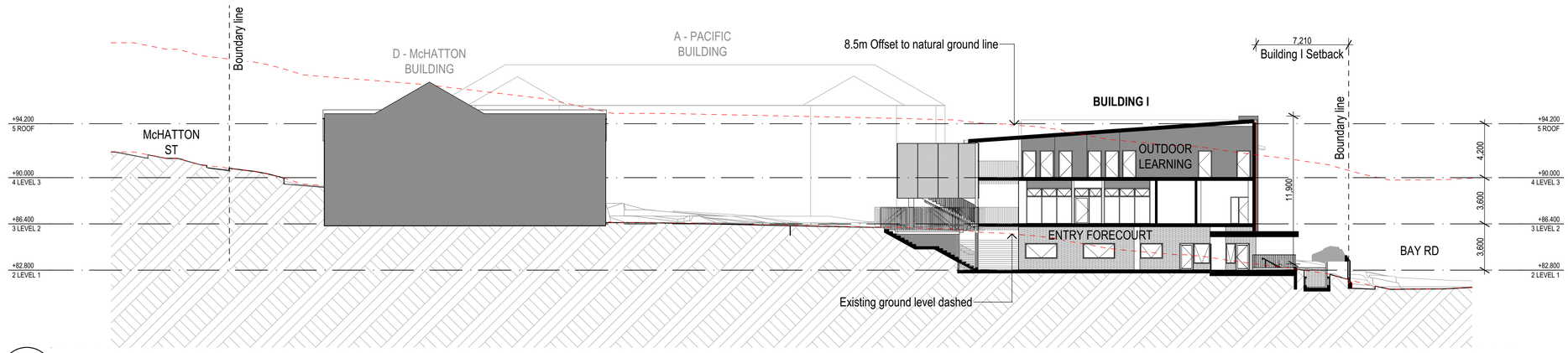
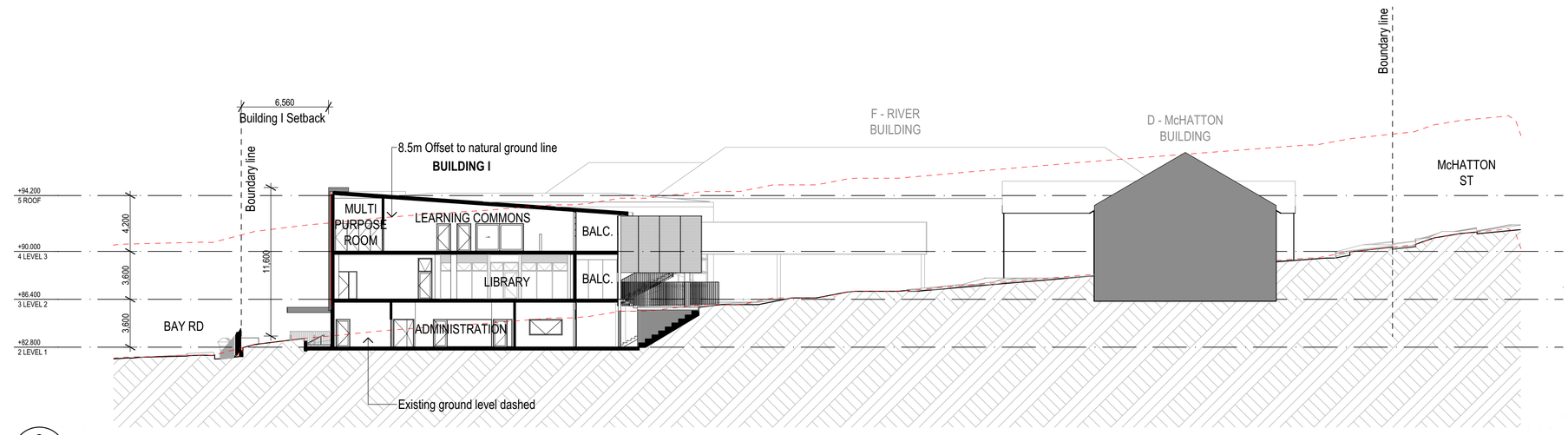


1 SECTION
SITE SECTION 01
SCALE: 1:200



2 SECTION
SITE SECTION 02
SCALE: 1:200



3 SECTION
SITE SECTION 03
SCALE: 1:200

REV.	DESCRIPTION	DATE	INIT.
A	REVISED FACADE ISSUE	06/08/2021	BN
B	CONSULTANT COORDINATION ISSUE	09/08/2021	JH
C	Draft SSDA Issue	13/08/2021	BN

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PHASE: **SCHEMATIC DESIGN**

CLIENT: NSW DEPT OF EDUCATION (SCHOOLS INFRASTRUCTURE)

PROJECT: NORTH SYDNEY PUBLIC SCHOOL

ADDRESS: BAY ROAD WAVERTON, NSW

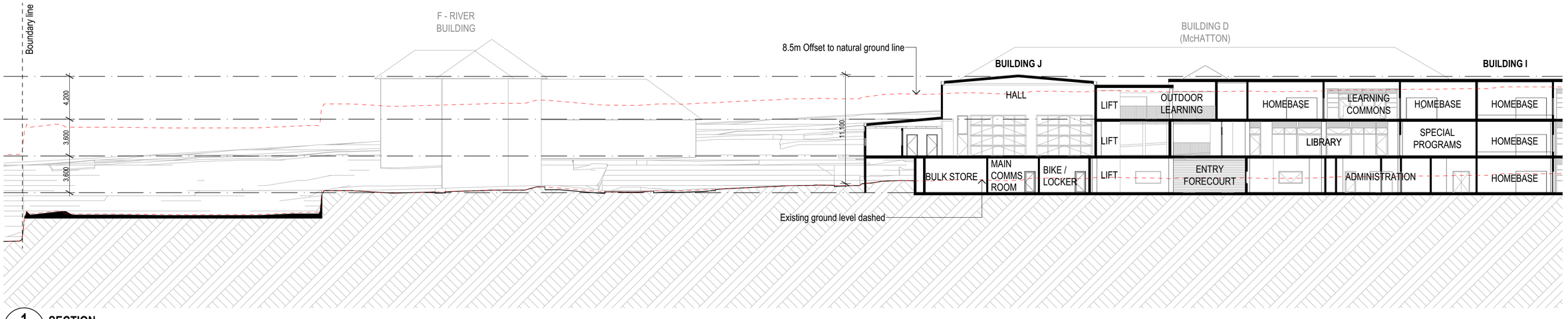
DRAWING: **SITE SECTIONS 01**

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

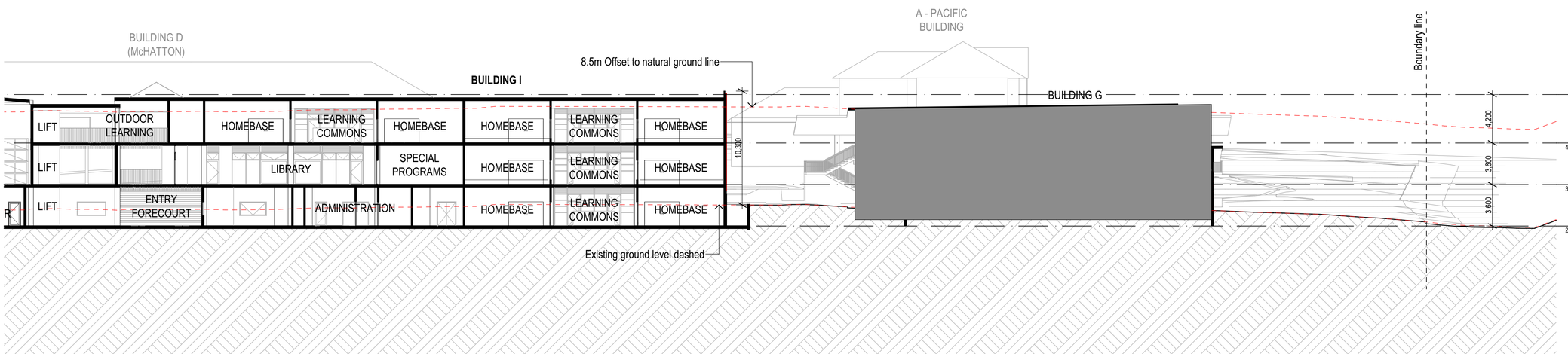
PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

DRAWING NUMBER: **SD-1104**

REVISION: **C**



1 **SECTION**
SITE SECTION 04
SCALE: 1:200



2 **SECTION**
SITE SECTION 04
SCALE: 1:200

REV.	DESCRIPTION	DATE	INIT.
A	REVISED FACADE ISSUE	06/08/2021	BN
B	CONSULTANT COORDINATION ISSUE	09/08/2021	JH
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PHASE **SCHEMATIC DESIGN**

CLIENT NSW DEPT OF EDUCATION (SCHOOLS INFRASTRUCTURE)

PROJECT NORTH SYDNEY PUBLIC SCHOOL

ADDRESS BAY ROAD
WAVERTON, NSW

DRAWING **SITE SECTIONS 02**

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

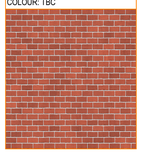
PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

DRAWING NUMBER	REVISION
SD-1105	C

150mm @ A1 | 100 | 50

PREFINISHED CFC CLADDING
CERAMAPANEL

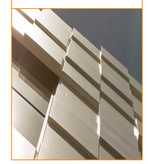
BRICKWORK
MANUFACTURER: TBC
SIZE: 230MM X 110MM X 76MM
COLOUR: TBC



SOUTH ELEVATION
NOT TO SCALE

PREFINISHED CFC CLADDING
CERAMAPANEL

PRECAST GRC PANELS
COLOUR: SANDSTONE



CUSTOM FASCIA GUTTER
COLOUR: COLORBOND, WALLABY

WEST ELEVATION
NOT TO SCALE

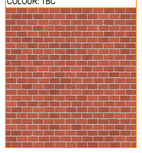
EAST ELEVATION
NOT TO SCALE

METAL SCREENING
TYPE: LOCKER GROUP METEX - EXPANDED MESH 38 PROFILE
COLOUR: BLACK

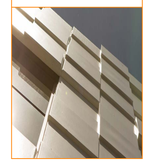
METAL SCREENING
TYPE: LOCKER GROUP METEX - EXPANDED MESH 38 PROFILE
COLOUR: BLACK

BALUSTRADE
MATERIAL: GALVANISED STEEL

BRICKWORK
MANUFACTURER: TBC
SIZE: 230MM X 110MM X 76MM
COLOUR: TBC



PRECAST GRC PANELS
COLOUR: SANDSTONE



NORTH ELEVATION
NOT TO SCALE

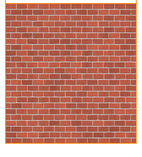
PREFINISHED CFC CLADDING
CERAMAPANEL
COLOUR: TBC

METAL ROOF SHEETING
PROFILE: TRIMDECK
COLOUR: SHALE GREY

METAL SCREENING
TYPE: LOCKER GROUP METEX - EXPANDED MESH 38 PROFILE
COLOUR: BLACK

METAL SCREENING
TYPE: LOCKER GROUP METEX - EXPANDED MESH 38 PROFILE
COLOUR: BLACK

BRICKWORK
MANUFACTURER: TBC
SIZE: 230MM X 110MM X 76MM
COLOUR: TBC



EAST- HALL ELEVATION
NOT TO SCALE

COUNTERWEIGHT DOOR

REV.	DESCRIPTION	DATE	INIT.
A	Draft SSDA Issue	13/08/2021	BN

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Paul Trotter fraia		NSW 7177	QLD 2646
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PHASE **SCHEMATIC DESIGN**

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ADDRESS BAY ROAD
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DRAWING **EXTERNAL MATERIALS & FINISHES**

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

DRAWING NUMBER **SD-1106**

REVISION **A**

150mm @ A1
100
50

OVERVIEW

END OF EDWARD STREET

BAY ROAD

PACIFIC HIGHWAY

REV.	DESCRIPTION	DATE	INIT.
A	Draft SSDA Issue	13/08/2021	BN

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SCHEMATIC DESIGN

CLIENT
NSW DEPT OF EDUCATION (SCHOOLS INFRASTRUCTURE)

PROJECT
NORTH SYDNEY PUBLIC SCHOOL

ADDRESS
BAY ROAD
WAVERTON, NSW

DRAWING
PERSPECTIVES

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

DRAWING NUMBER: **SD-1107**

REVISION: **A**

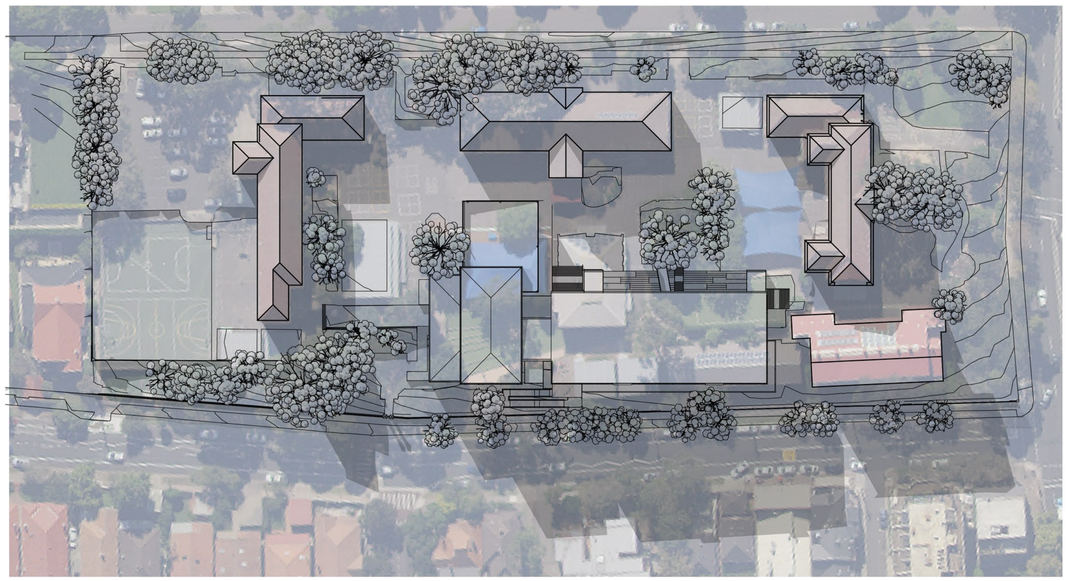
150mm @ A1
100
50

50 100 150mm @ A1

plot date: Monday, 16 August 2021, 10:14 AM
file location: BIMcloud: SYDBIM23 - BIMcloud Basic for ARCHICAD 23/7068WA01 - North Sydney Public School Upgrade

1 PLAN
21st June 9am

2 PLAN
21st June 12pm



3 PLAN
21st June 3pm

REV.	DESCRIPTION	DATE	INIT.
A	Draft SSDA Issue	13/08/2021	BN

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Paul Trotter fraia		NSW 7177	QLD 2646
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SCHEMATIC DESIGN

CLIENT
NSW DEPT OF EDUCATION
(SCHOOLS INFRASTRUCTURE)

PROJECT
NORTH SYDNEY PUBLIC
SCHOOL

ADDRESS
BAY ROAD
WAVERTON, NSW

DRAWING
SHADOW DIAGRAMS

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

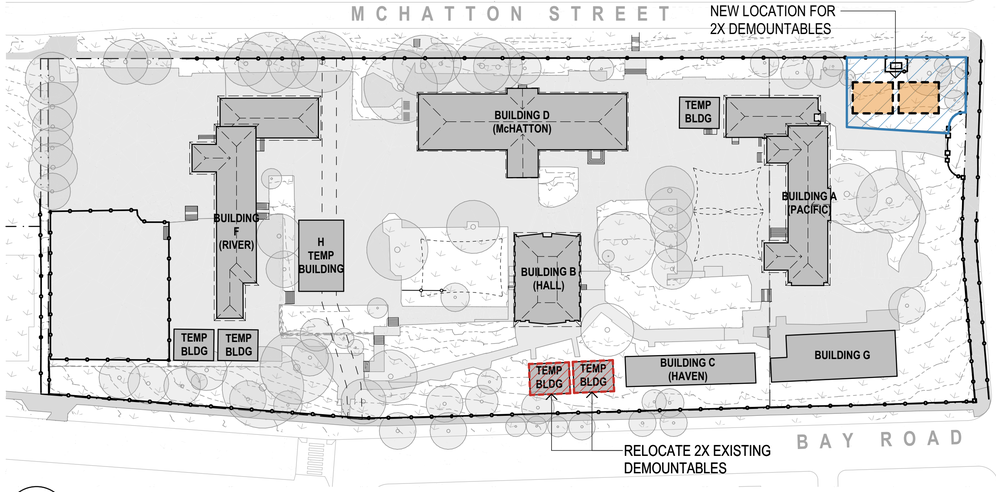
DRAWING NUMBER
SD-1108

REVISION
A

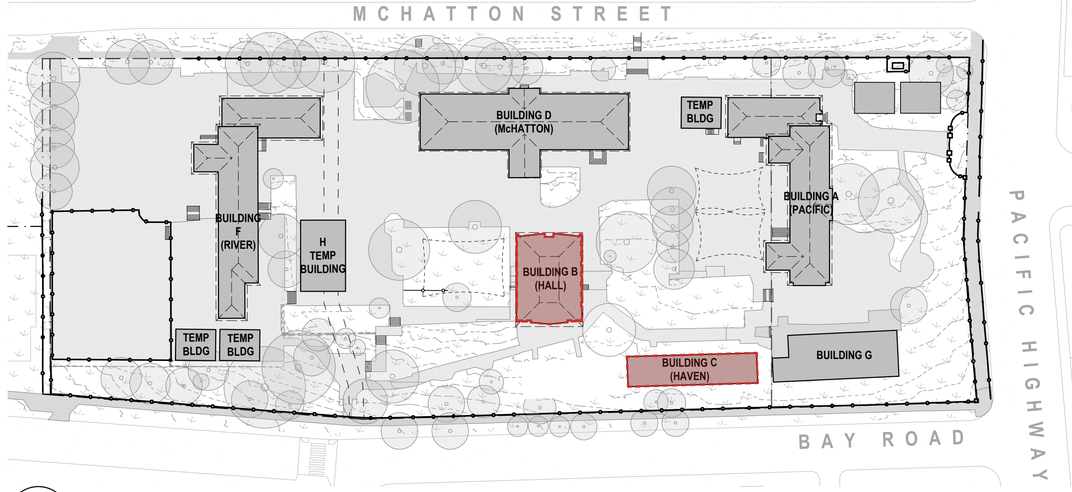
150mm @ A1
100
50

50 100 150mm @ A1

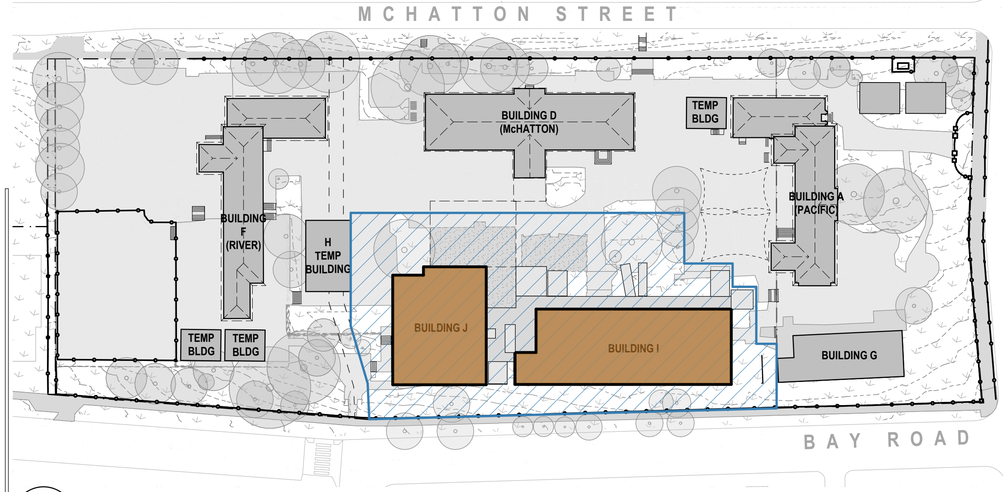
plot date: Monday, 16 August 2021, 9:50 AM
file location: BIMcloud: SYDBIM23 - BIMcloud Basic for ARCHICAD 23/7068WA01 - North Sydney Public School Upgrade



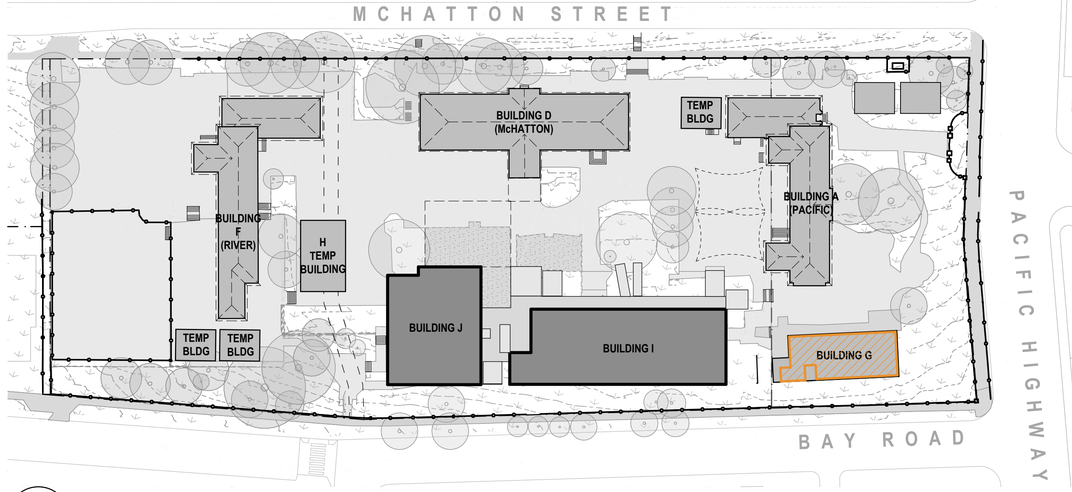
1 **PLAN**
STAGE 1 CONSTRUCTION



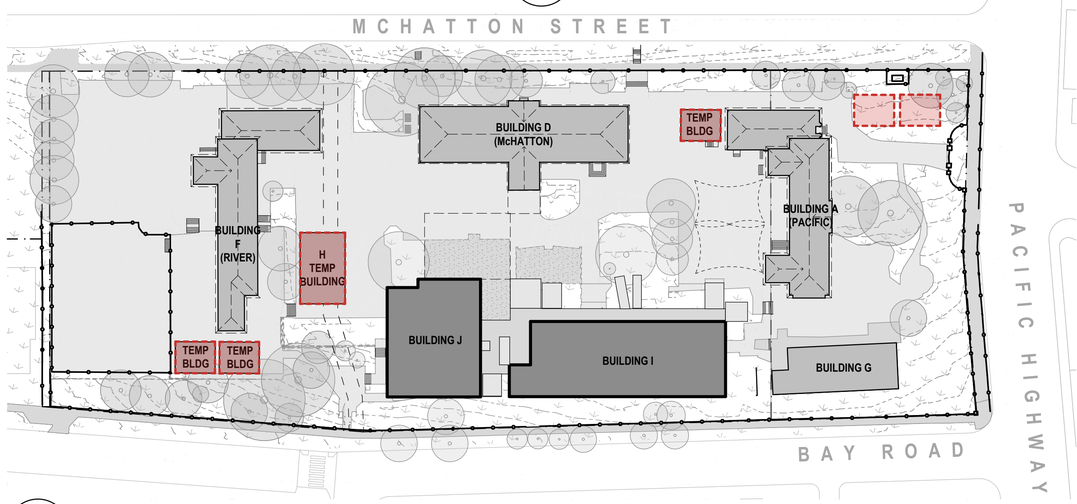
2 **PLAN**
STAGE 2 CONSTRUCTION



3 **PLAN**
STAGE 3 CONSTRUCTION



4 **PLAN**
STAGE 4 CONSTRUCTION



5 **PLAN**
STAGE 5 CONSTRUCTION

STAGING PLAN LEGEND

- CONSTRUCTION ZONE
- DEMOLISH EXISTING BUILDING / DEMOUNTABLE
- RELOCATE EXISTING DEMOUNTABLE
- NEW BUILDING
- RELOCATED DEMOUNTABLE
- REFURBISH EXISTING BUILDING

REV.	DESCRIPTION	DATE	INIT.
A	Draft SSDA Issue	13/08/2021	BN

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Paul Trotter fraia		NSW 7177	QLD 2646
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PHASE **SCHEMATIC DESIGN**

CLIENT NSW DEPT OF EDUCATION (SCHOOLS INFRASTRUCTURE)

PROJECT NORTH SYDNEY PUBLIC SCHOOL

ADDRESS BAY ROAD
WAVERTON, NSW

DRAWING **STAGING PLANS**

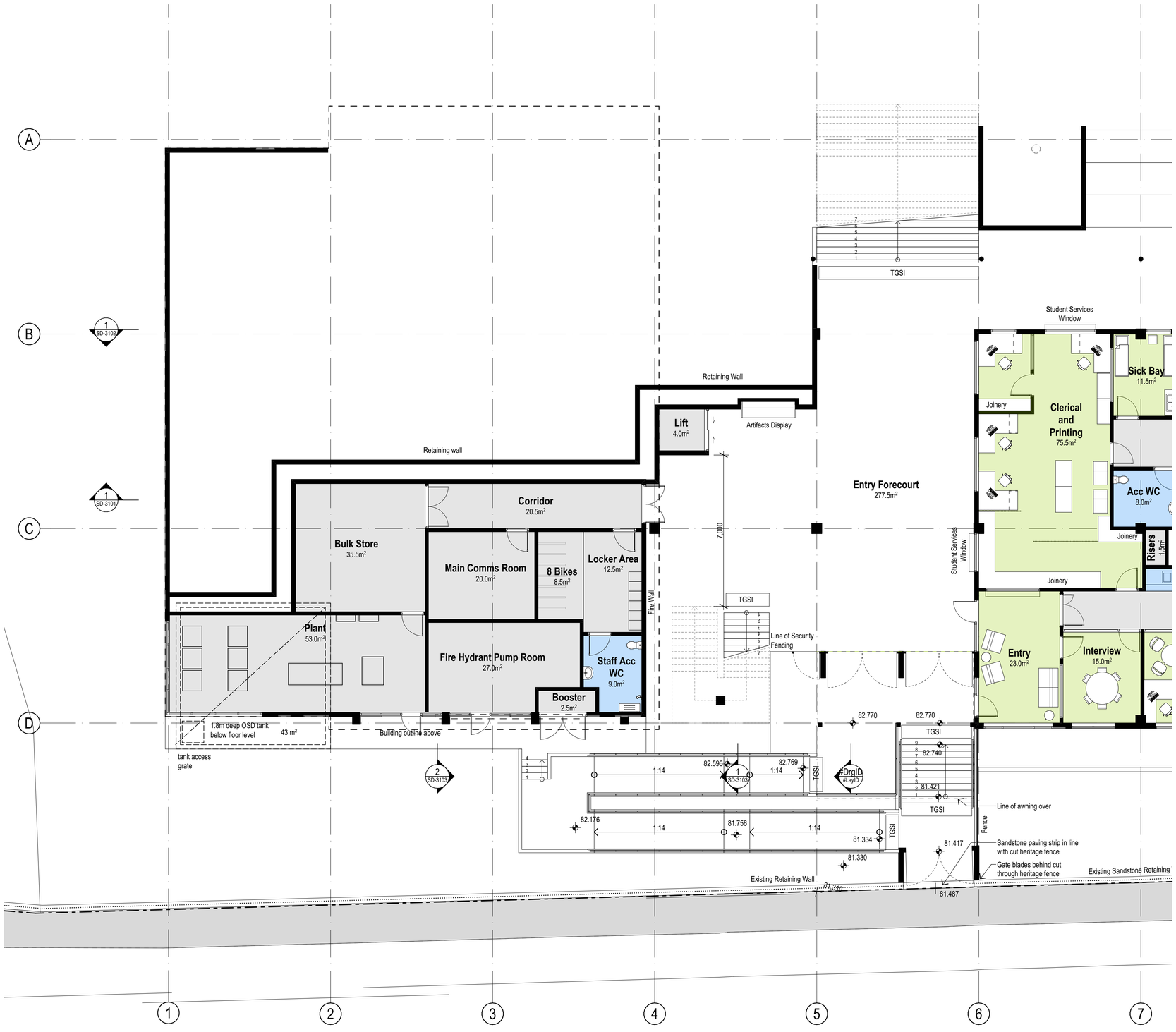
Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

DRAWING NUMBER	REVISION
SD-1301	A

150mm @ A1
100
50
50 100 150mm @ A1

plot date: Monday, 16 August 2021, 10:04 AM
file location: BIMcloud: SYDBIM23 - BIMcloud Basic for ARCHICAD 23/7068WA01 - North Sydney Public School Upgrade



1 PLAN
BUILDING J - LEVEL 1 FLOOR PLAN
SCALE: 1:100

150mm @ A1
100
50

REV.	DESCRIPTION	DATE	INIT.
A	CONSULTANT COORDINATION ISSUE	02/08/2021	BN
B	CONSULTANT COORDINATION ISSUE	05/08/2021	BN
C	REVISED FACADE ISSUE	06/08/2021	BN
D	CONSULTANT COORDINATION ISSUE	09/08/2021	JH
E	CONSULTANT COORDINATION ISSUE	11/08/2021	JH
F	Draft SSDA Issue	13/08/2021	BN

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Paul Trotter fraia		NSW 7177	QLD 2646
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PROJECT NORTH SYDNEY PUBLIC SCHOOL

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DRAWING **BUILDING J - LEVEL 1 FLOOR PLAN**

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

DRAWING NUMBER **SD-2001**

REVISION **F**

1 PLAN
BUILDING I - LEVEL 1 FLOOR PLAN
SCALE: 1:100

REV.	DESCRIPTION	DATE	INIT.
A	CONSULTANT COORDINATION ISSUE	02/08/2021	BN
B	CONSULTANT COORDINATION ISSUE	05/08/2021	BN
C	REVISED FACADE ISSUE	06/08/2021	BN
D	CONSULTANT COORDINATION ISSUE	09/08/2021	JH
E	CONSULTANT COORDINATION ISSUE	11/08/2021	JH
F	Draft SSDA Issue	13/08/2021	BN

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Paul Trotter fraia		NSW 7177	QLD 2646
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CLIENT: NSW DEPT OF EDUCATION (SCHOOLS INFRASTRUCTURE)

PROJECT: NORTH SYDNEY PUBLIC SCHOOL

ADDRESS: BAY ROAD
WAVERTON, NSW

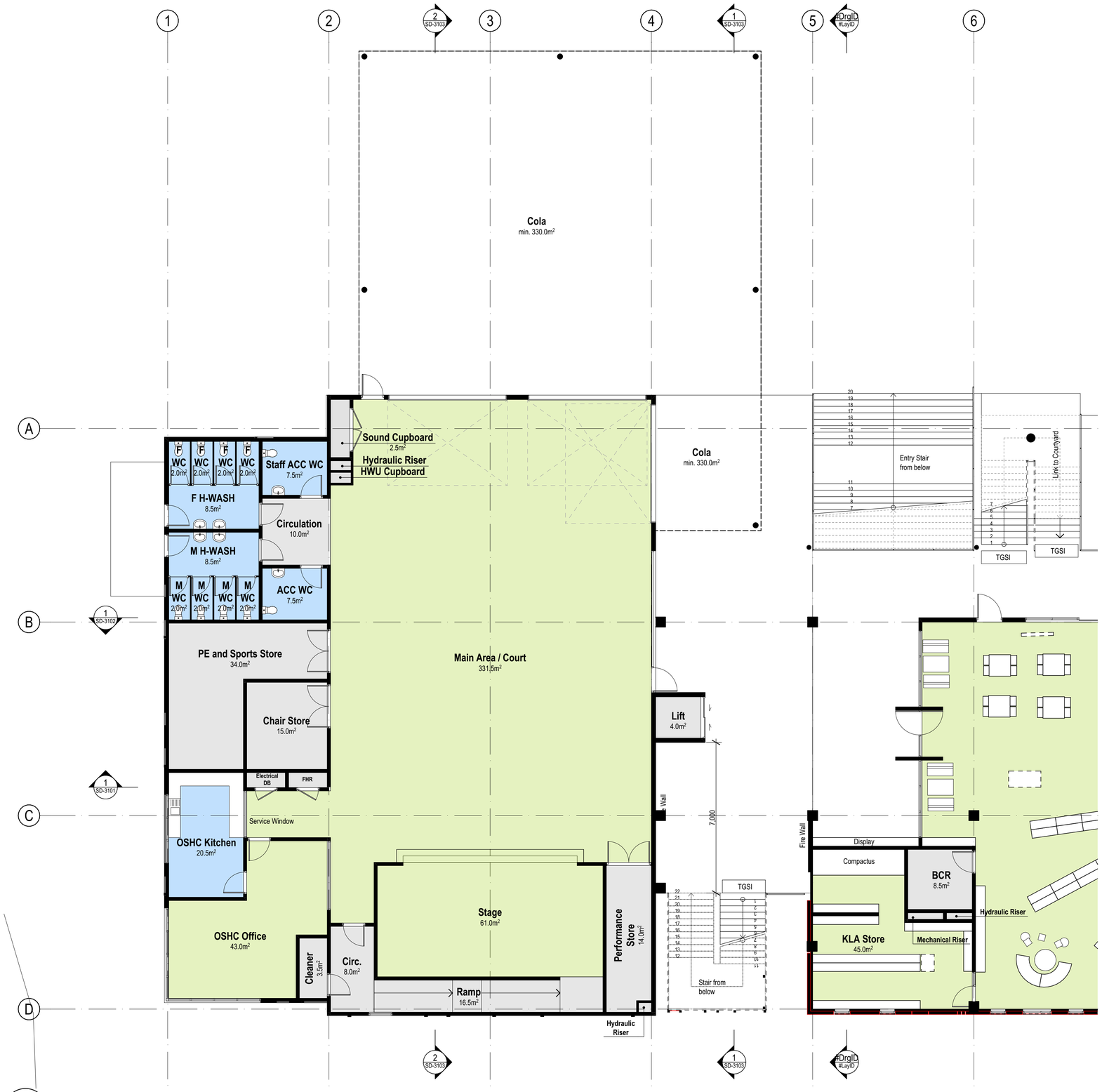
DRAWING: **BUILDING I - LEVEL 1 FLOOR PLAN**

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

DRAWING NUMBER: **SD-2002**

REVISION: **F**



1 **PLAN**
BUILDING I - LEVEL 2 FLOOR PLAN
SCALE: 1:100

REV.	DESCRIPTION	DATE	INIT.
A	CONSULTANT COORDINATION ISSUE	02/08/2021	BN
B	CONSULTANT COORDINATION ISSUE	05/08/2021	BN
C	REVISED FACADE ISSUE	06/08/2021	BN
D	CONSULTANT COORDINATION ISSUE	09/08/2021	JH
E	CONSULTANT COORDINATION ISSUE	11/08/2021	JH
F	Draft SSDA Issue	13/08/2021	BN

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Paul Trotter fraia		NSW 7177	QLD 2646
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PROJECT NORTH SYDNEY PUBLIC SCHOOL

ADDRESS BAY ROAD
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DRAWING **BUILDING J - LEVEL 2 FLOOR PLAN**

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

DRAWING NUMBER **SD-2003**

REVISION **F**

150mm @ A1
100
50

1 PLAN
BUILDING J - LEVEL 1 FLOOR PLAN
SCALE: 1:100

REV.	DESCRIPTION	DATE	INIT.
A	CONSULTANT COORDINATION ISSUE	02/08/2021	BN
B	CONSULTANT COORDINATION ISSUE	05/08/2021	BN
C	REVISED FACADE ISSUE	06/08/2021	BN
D	CONSULTANT COORDINATION ISSUE	09/08/2021	JH
E	CONSULTANT COORDINATION ISSUE	11/08/2021	JH
F	Draft SSDA Issue	13/08/2021	BN

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DRAWING **BUILDING I - LEVEL 2 FLOOR PLAN**

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

DRAWING NUMBER **SD-2004**

REVISION **F**

150mm @ A1
100
50

1 **PLAN**
BUILDING I - LEVEL 3 FLOOR PLAN
SCALE: 1:100

150mm @ A1
100
50

plot date: Monday, 16 August 2021, 10:05 AM
file location: BIMcloud: SYDBIM23 - BIMcloud Basic for ARCHICAD 23/7068WA01 - North Sydney Public School Upgrade

REV.	DESCRIPTION	DATE	INIT.
A	CONSULTANT COORDINATION ISSUE	02/08/2021	BN
B	CONSULTANT COORDINATION ISSUE	05/08/2021	BN
C	REVISED FACADE ISSUE	06/08/2021	BN
D	CONSULTANT COORDINATION ISSUE	09/08/2021	JH
E	CONSULTANT COORDINATION ISSUE	11/08/2021	JH
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PROJECT NORTH SYDNEY PUBLIC SCHOOL

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DRAWING **BUILDING I - LEVEL 3 FLOOR PLAN**

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

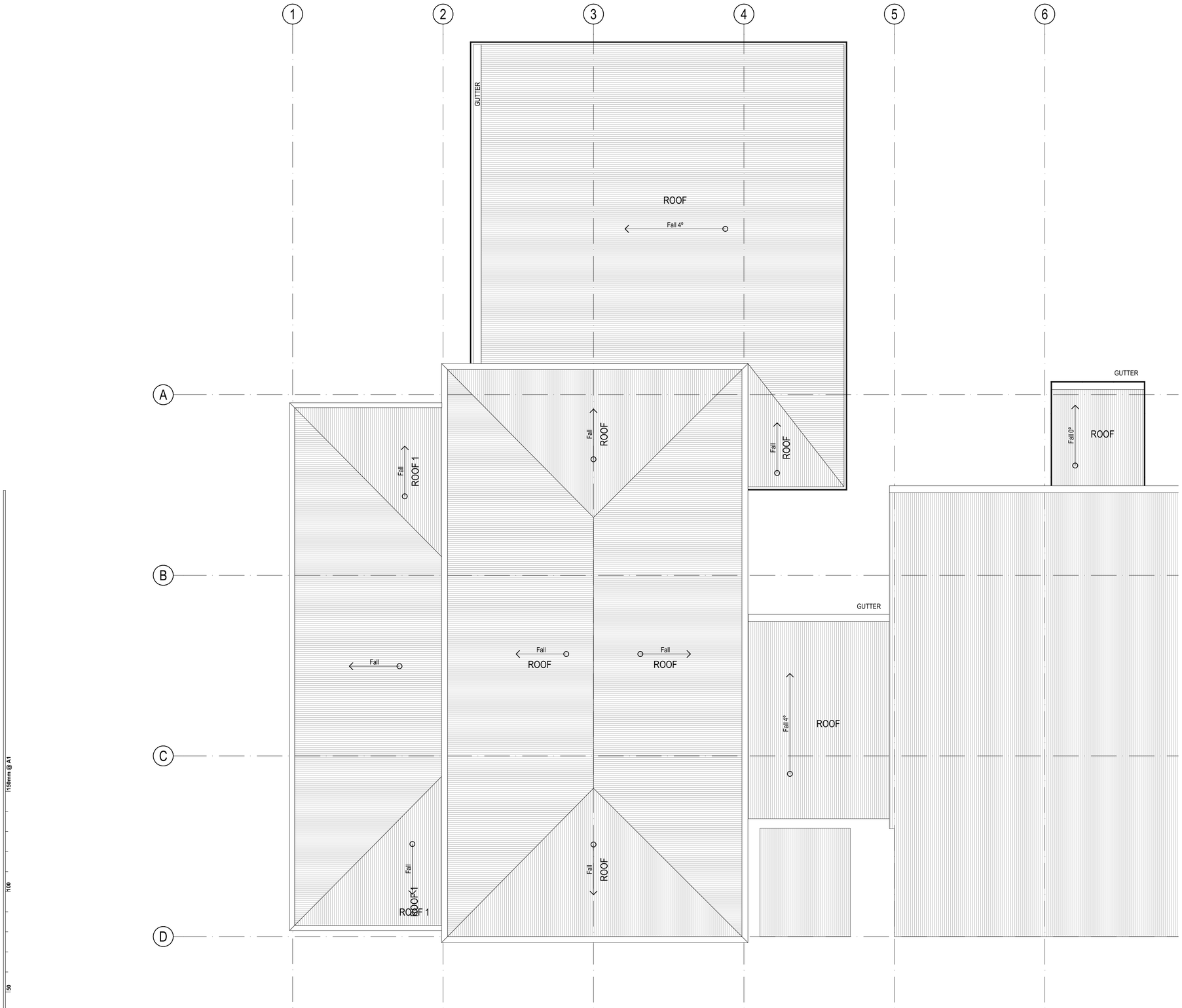
DRAWING NUMBER **SD-2005**

REVISION **F**

ROOF PLAN LEGEND

ROOF LABEL

ROOF 1 ← ROOF NUMBER
XX00 : XX00 ← FINISH CODE (REFER TO FINISHES LEGEND)
MATERIAL CODE (REFER TO MATERIAL LEGEND)
FALL 5°
FALL IN ROOF



1 **PLAN**
BUILDING I - ROOF PLAN
SCALE: 1:100

REV.	DESCRIPTION	DATE	INIT.
A	CONSULTANT COORDINATION ISSUE	02/08/2021	BN
B	CONSULTANT COORDINATION ISSUE	05/08/2021	BN
C	REVISED FACADE ISSUE	06/08/2021	BN
D	CONSULTANT COORDINATION ISSUE	09/08/2021	JH
E	CONSULTANT COORDINATION ISSUE	11/08/2021	JH
F	Draft SSDA Issue	13/08/2021	BN

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ADDRESS BAY ROAD
WAVERTON, NSW

DRAWING **BUILDING J - ROOF PLAN**

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

DRAWING NUMBER **SD-2006**

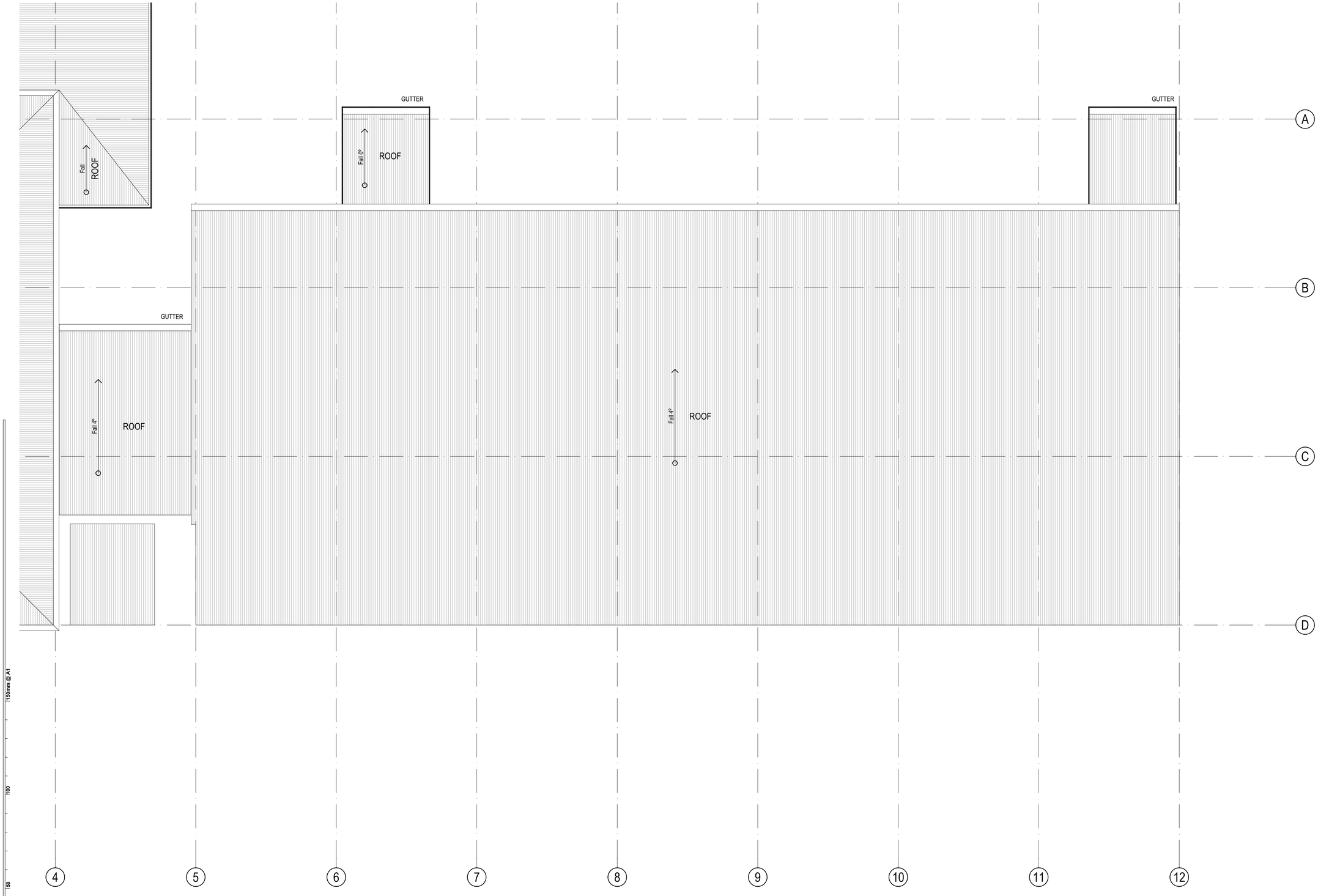
REVISION **F**

150mm @ A1 | 100 | 50

ROOF PLAN LEGEND

ROOF LABEL

ROOF 1 ← ROOF NUMBER
XX00 : XX00 ← FINISH CODE (REFER TO FINISHES LEGEND)
MATERIAL CODE (REFER TO MATERIAL LEGEND)
FALL 5° ← FALL IN ROOF



1 **PLAN**
BUILDING J - ROOF PLAN
SCALE: 1:100

REV.	DESCRIPTION	DATE	INIT.
A	CONSULTANT COORDINATION ISSUE	02/08/2021	BN
B	CONSULTANT COORDINATION ISSUE	05/08/2021	BN
C	REVISED FACADE ISSUE	06/08/2021	BN
D	CONSULTANT COORDINATION ISSUE	09/08/2021	JH
E	CONSULTANT COORDINATION ISSUE	11/08/2021	JH
F	Draft SSDA Issue	13/08/2021	BN

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PHASE **SCHEMATIC DESIGN**

CLIENT NSW DEPT OF EDUCATION (SCHOOLS INFRASTRUCTURE)

PROJECT NORTH SYDNEY PUBLIC SCHOOL

ADDRESS BAY ROAD
WAVERTON, NSW

DRAWING **BUILDING I - ROOF PLAN**

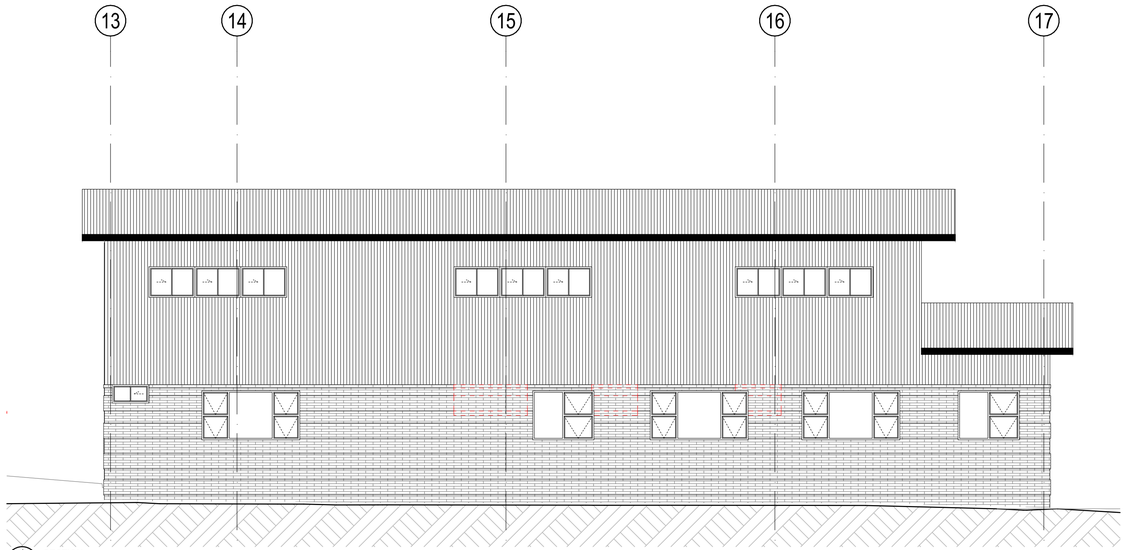
Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

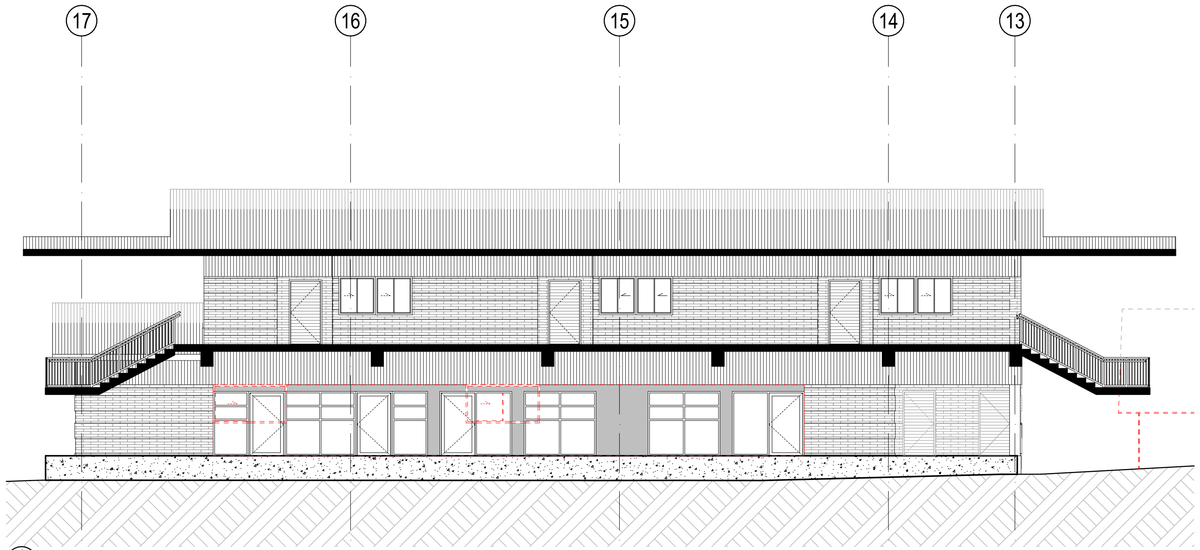
DRAWING NUMBER **SD-2007**

REVISION **F**

1 SECTION
BUILDING G / COURTYARD LEVEL (1)
SCALE: 1:100



1 SECTION
SOUTH ELEVATION
SCALE: 1:100



1 SECTION
NORTH ELEVATION
SCALE: 1:100

REV.	DESCRIPTION	DATE	INIT.
A	CONSULTANT COORDINATION ISSUE	02/08/2021	BN
B	CONSULTANT COORDINATION ISSUE	05/08/2021	BN
C	REVISED FACADE ISSUE	06/08/2021	BN
D	Draft SSDA Issue	13/08/2021	BN

150mm @ A1 | 100 | 50

plot date: Monday, 16 August 2021 file location: BIMcloud: SYDBIM23 - BIMcloud Basic for ARCHICAD 23/7068WA01 - North Sydney Public School Upgrade

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Paul Trotter fraia NSW 7177 QLD 2646
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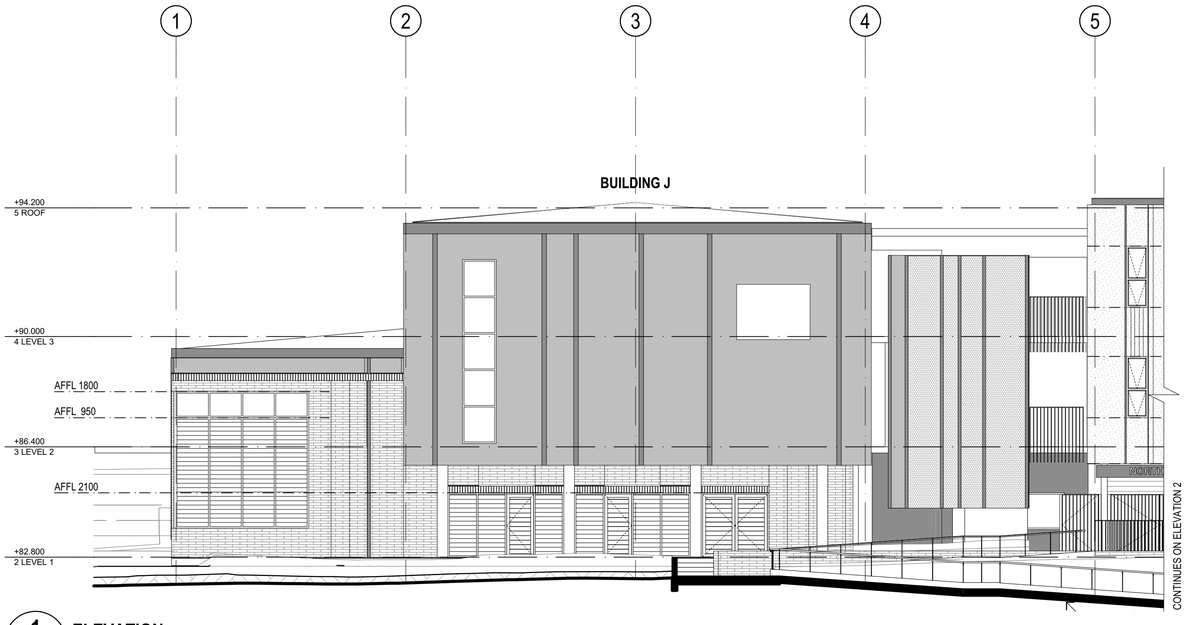
PHASE: SCHEMATIC DESIGN
CLIENT: NSW Department of Education / School infrastructure NSW
PROJECT: NORTH SYDNEY PUBLIC SCHOOL
ADDRESS: BAY ROAD
WAVERTON, NSW

DRAWING: BUILDING G - LEVEL 1 FLOOR PLAN

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER 7068WA01
DIRECTOR JW
CHECKED
DRAWING NUMBER SD-2012
REVISION D



1 ELEVATION
BUILDING J - SOUTH ELEVATION
SCALE: 1:100

2 ELEVATION
BUILDING I - SOUTH ELEVATION
SCALE: 1:100

ELEVATION LEGEND

- PRECAST GRC PANEL
- PREFINISHED CFC CLADDING
- METAL FASCIA / GUTTER
- BRICKWORK
- METAL SCREENING
- METAL ROOF SHEETING

REV.	DESCRIPTION	DATE	INIT.
A	CONSULTANT COORDINATION ISSUE	02/08/2021	BN
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E	CONSULTANT COORDINATION ISSUE	11/08/2021	JH
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Paul Trotter fraia		NSW 7177	QLD 2646
Ryan Loveday raia			QLD 4500

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CLIENT NSW DEPT OF EDUCATION (SCHOOLS INFRASTRUCTURE)

PROJECT NORTH SYDNEY PUBLIC SCHOOL

ADDRESS BAY ROAD
WAVERTON, NSW

DRAWING **BUILDING I & J - ELEVATION 01**

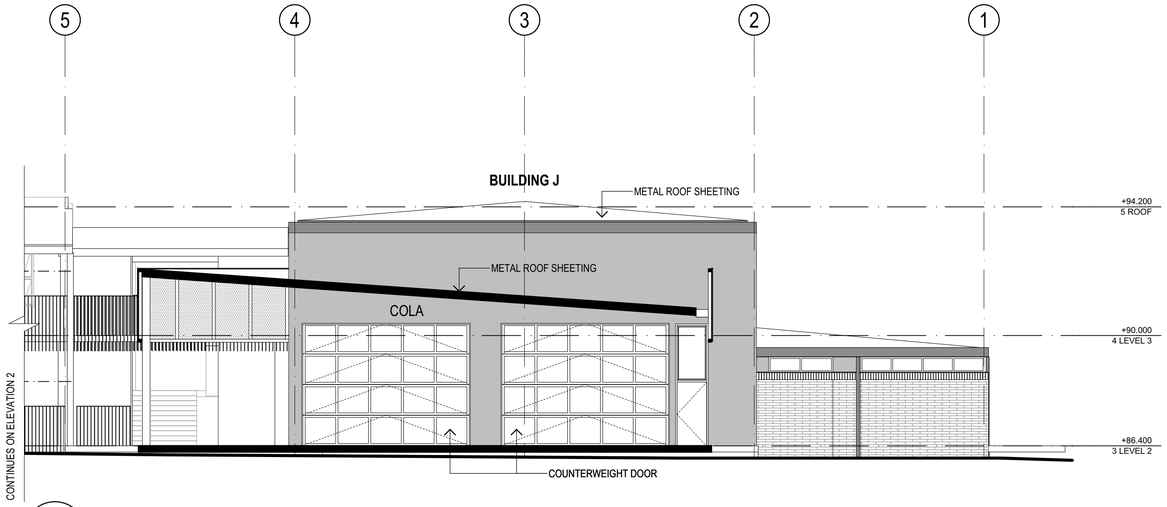
Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

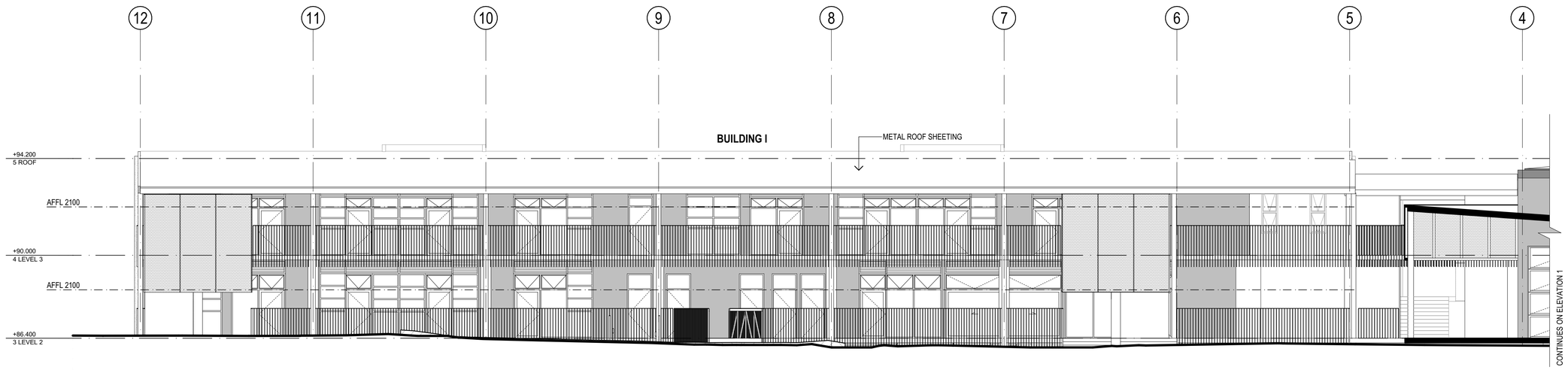
DRAWING NUMBER **SD-3001**

REVISION **F**

150mm @ A1 | 100 | 50



1 ELEVATION
BUILDING J - NORTH ELEVATION
SCALE: 1:100



2 ELEVATION
BUILDING I - NORTH ELEVATION
SCALE: 1:100

ELEVATION LEGEND

- PRECAST GRC PANEL
- PREFINISHED CFC CLADDING
- METAL FASCIA / GUTTER
- BRICKWORK
- METAL SCREENING
- METAL ROOF SHEETING

REV.	DESCRIPTION	DATE	INIT.
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F	Draft SSDA Issue	13/08/2021	BN

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Paul Trotter fraia		NSW 7177	QLD 2646
Ryan Loveday raia			QLD 4500

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PHASE **SCHEMATIC DESIGN**

CLIENT NSW DEPT OF EDUCATION (SCHOOLS INFRASTRUCTURE)

PROJECT NORTH SYDNEY PUBLIC SCHOOL

ADDRESS BAY ROAD
WAVERTON, NSW

DRAWING **BUILDING I & J - ELEVATION 02**

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

DRAWING NUMBER **SD-3002**

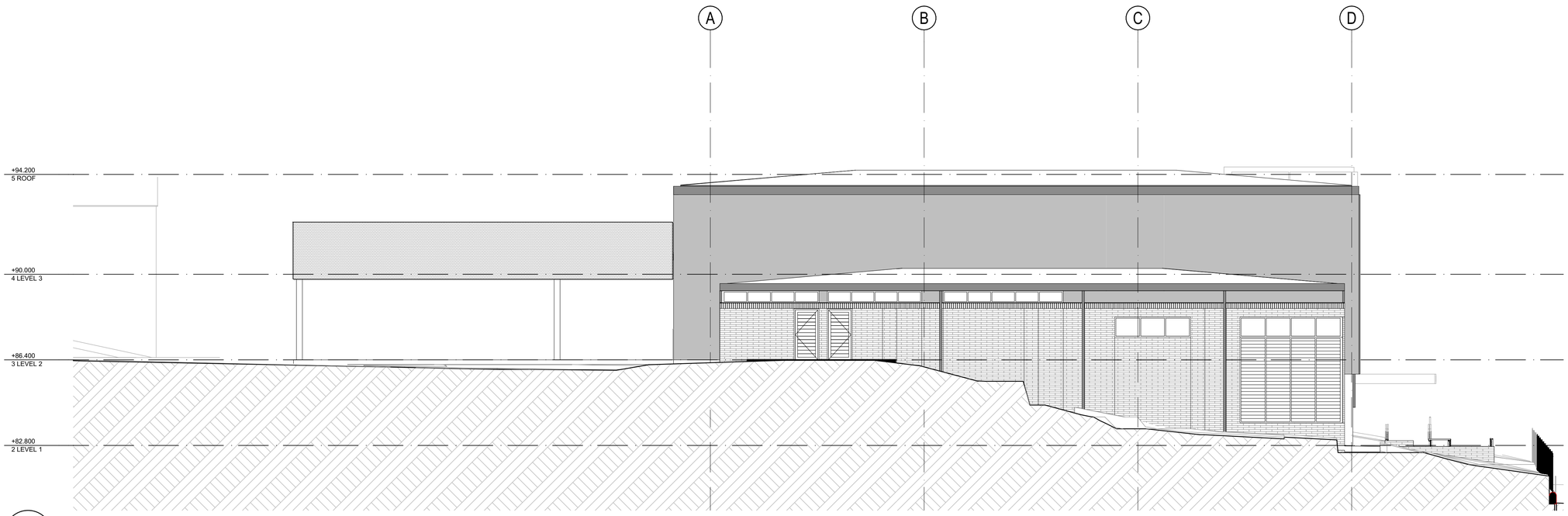
REVISION **F**

150mm @ A1
100
50

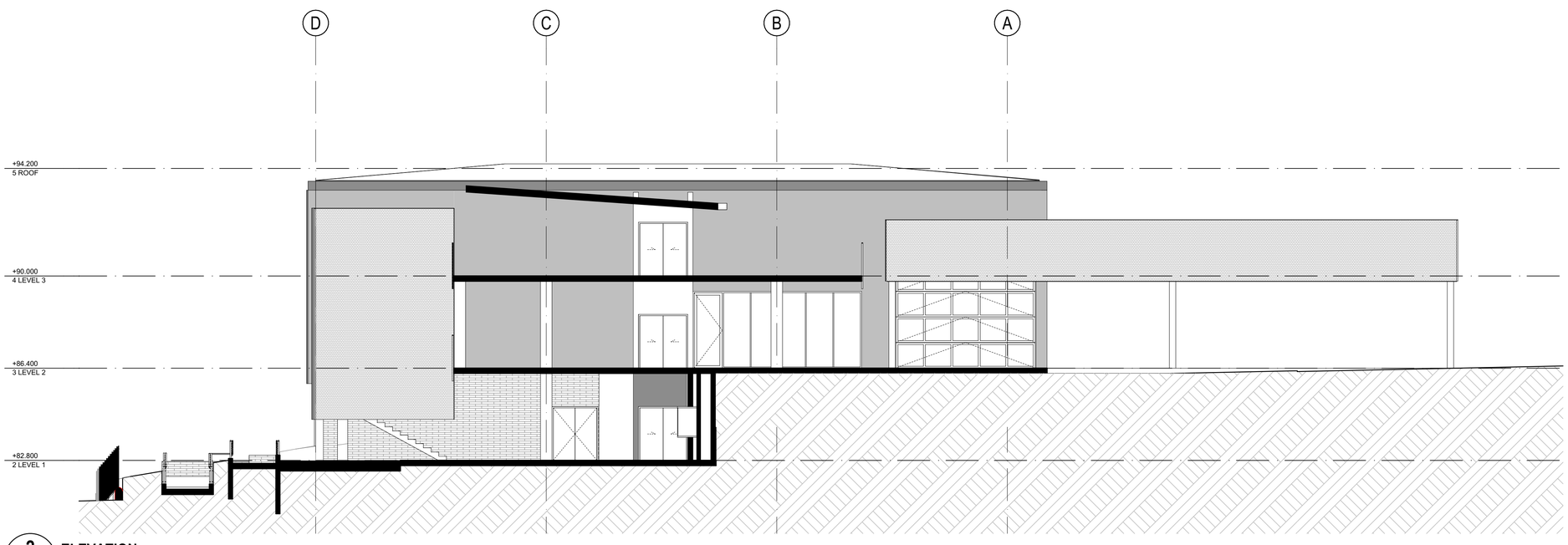
50 100 150mm @ A1

ELEVATION LEGEND

- PRECAST GRC PANEL
- PREFINISHED CFC CLADDING
- METAL FASCIA / GUTTER
- BRICKWORK
- METAL SCREENING
- METAL ROOF SHEETING



1 **ELEVATION**
BUILDING J - WEST ELEVATION
SCALE: 1:100



2 **ELEVATION**
BUILDING J - EAST ELEVATION
SCALE: 1:100

REV.	DESCRIPTION	DATE	INIT.
A	CONSULTANT COORDINATION ISSUE	02/08/2021	BN
B	CONSULTANT COORDINATION ISSUE	05/08/2021	BN
C	REVISED FACADE ISSUE	06/08/2021	BN
D	CONSULTANT COORDINATION ISSUE	09/08/2021	JH
E	CONSULTANT COORDINATION ISSUE	11/08/2021	JH
F	Draft SSDA Issue	13/08/2021	BN

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CLIENT NSW DEPT OF EDUCATION (SCHOOLS INFRASTRUCTURE)

PROJECT NORTH SYDNEY PUBLIC SCHOOL

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DRAWING **BUILDING J - ELEVATION 03**

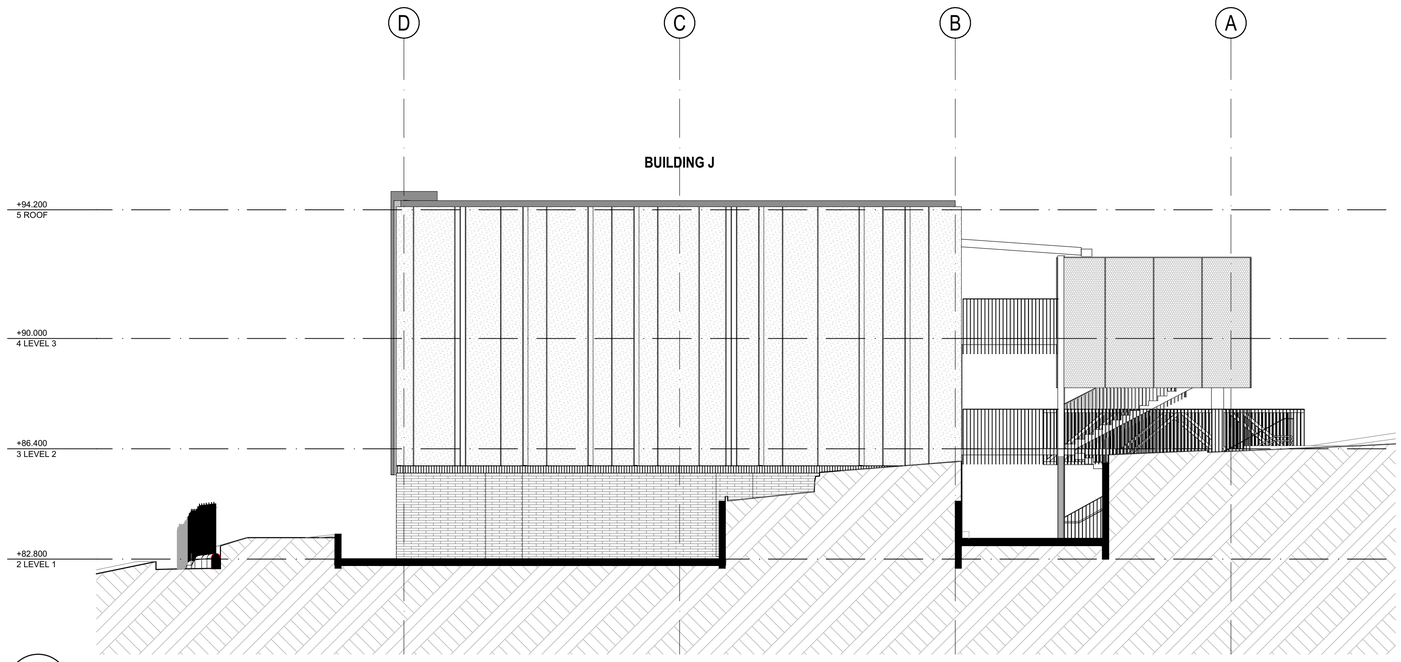
Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

DRAWING NUMBER **SD-3003**

REVISION **F**

150mm @ A1 | 100 | 50



1 **ELEVATION**

BUILDING I - EAST ELEVATION

SCALE: 1:100

ELEVATION LEGEND

- PRECAST GRC PANEL
- PREFINISHED CFC CLADDING
- METAL FASCIA / GUTTER
- BRICKWORK
- METAL SCREENING
- METAL ROOF SHEETING

REV.	DESCRIPTION	DATE	INIT.
A	CONSULTANT COORDINATION ISSUE	02/08/2021	BN
B	CONSULTANT COORDINATION ISSUE	05/08/2021	BN
C	REVISED FACADE ISSUE	06/08/2021	BN
D	CONSULTANT COORDINATION ISSUE	09/08/2021	JH
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F	Draft SSDA Issue	13/08/2021	BN

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PHASE **SCHEMATIC DESIGN**

CLIENT NSW DEPT OF EDUCATION (SCHOOLS INFRASTRUCTURE)

PROJECT NORTH SYDNEY PUBLIC SCHOOL

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DRAWING **BUILDING I - ELEVATION 04**

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER **7068WA01**

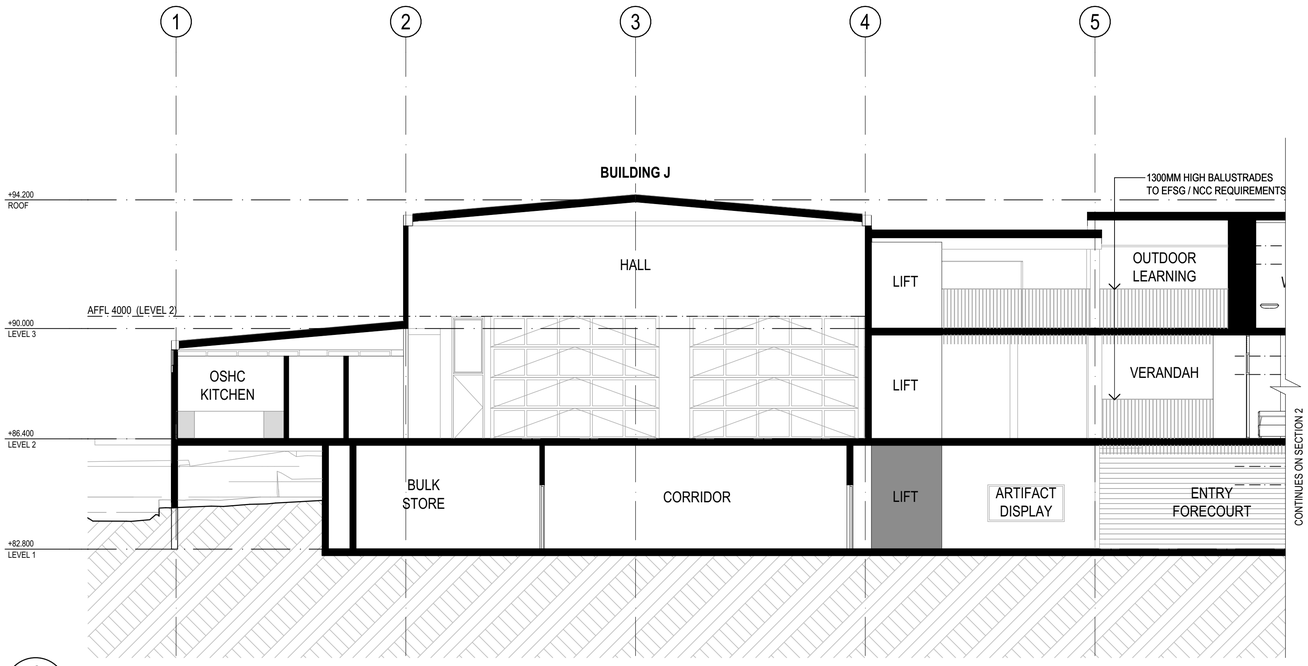
DIRECTOR **JW**

CHECKED

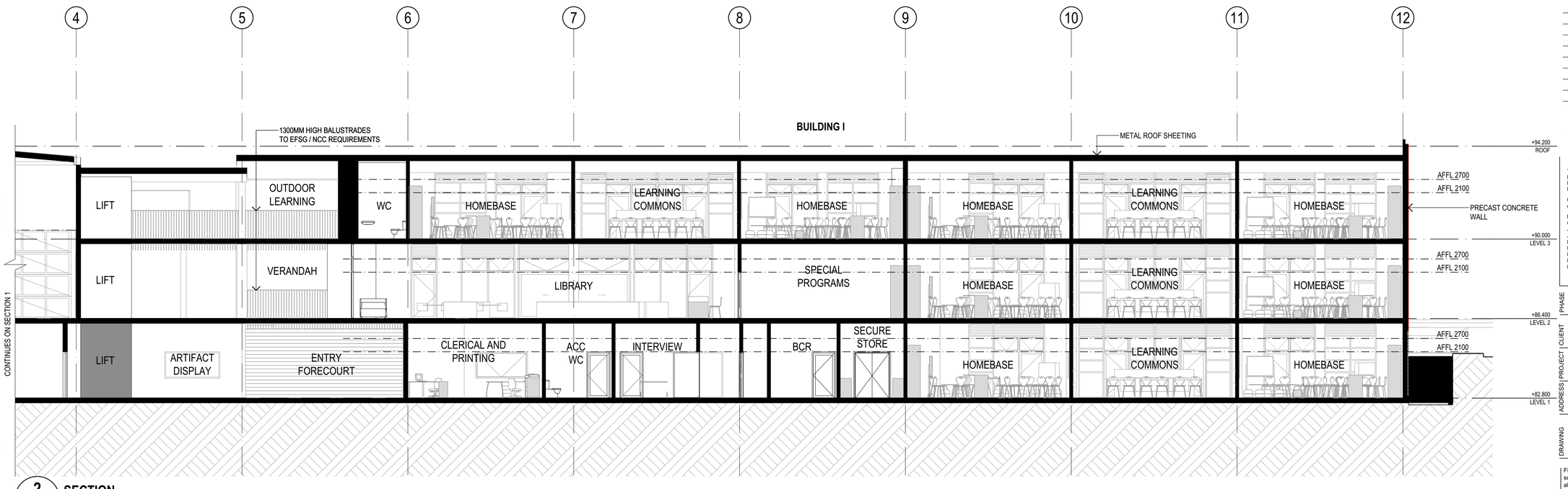
DRAWING NUMBER **SD-3004**

REVISION **F**

50 100 150mm @ A1



1 SECTION
BUILDING J - SECTION
SCALE: 1:100



2 SECTION
BUILDING I - SECTION
SCALE: 1:100

REV.	DESCRIPTION	DATE	INIT.
A	Draft SSDA Issue	13/08/2021	BN

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Paul Trotter fraia		NSW 7177	QLD 2646
Ryan Loveday raia			QLD 4500

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PHASE
SCHEMATIC DESIGN

CLIENT
NSW DEPT OF EDUCATION
(SCHOOLS INFRASTRUCTURE)

PROJECT
NORTH SYDNEY PUBLIC
SCHOOL

ADDRESS
BAY ROAD
WAVERTON, NSW

DRAWING
BUILDING I & J - SECTION 01

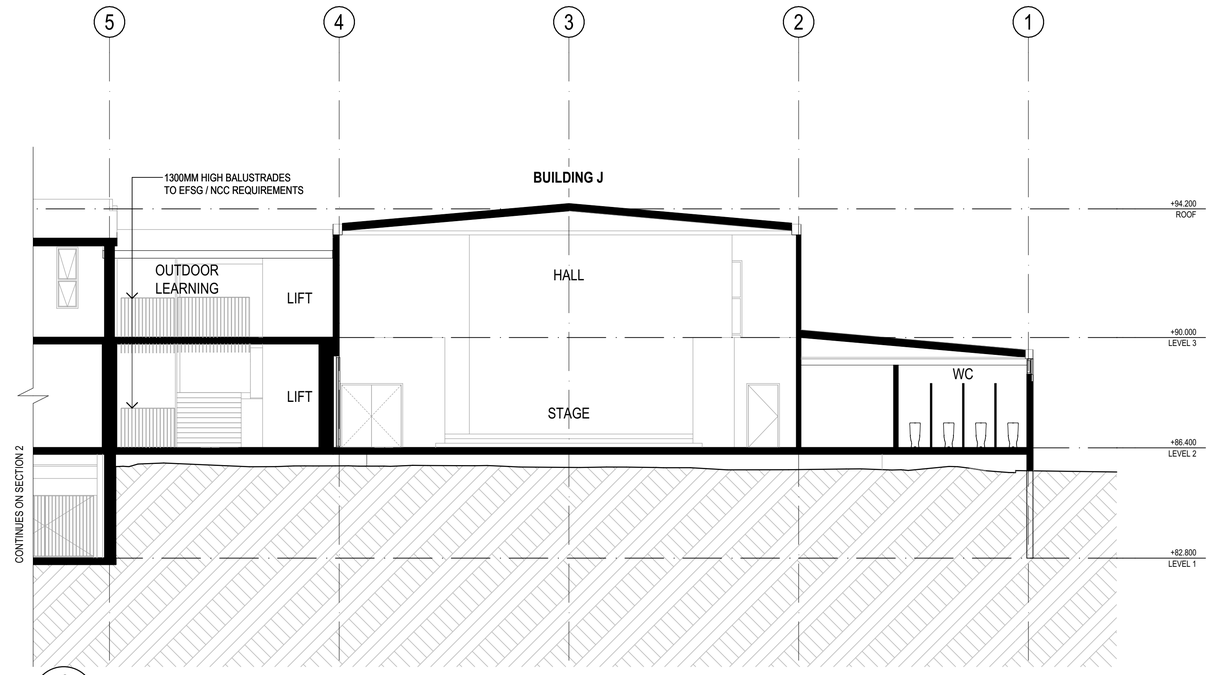
Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

DRAWING NUMBER	REVISION
SD-3101	A

50 100 150mm @ A1

plot date: Monday, 16 August 2021, 10:05 AM
file location: BIMcloud: SYDBIM23 - BIMcloud Basic for ARCHICAD 23/7068WA01 - North Sydney Public School Upgrade



1 SECTION
BUILDING J - SECTION
SCALE: 1:100

2 SECTION
BUILDING I - SECTION
SCALE: 1:100

REV.	DESCRIPTION	DATE	INIT.
A	Draft SSDA Issue	13/08/2021	BN

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PHASE
SCHEMATIC DESIGN

CLIENT
NSW DEPT OF EDUCATION
(SCHOOLS INFRASTRUCTURE)

PROJECT
NORTH SYDNEY PUBLIC
SCHOOL

ADDRESS
BAY ROAD
WAVERTON, NSW

DRAWING
BUILDING I & J - SECTION 02

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

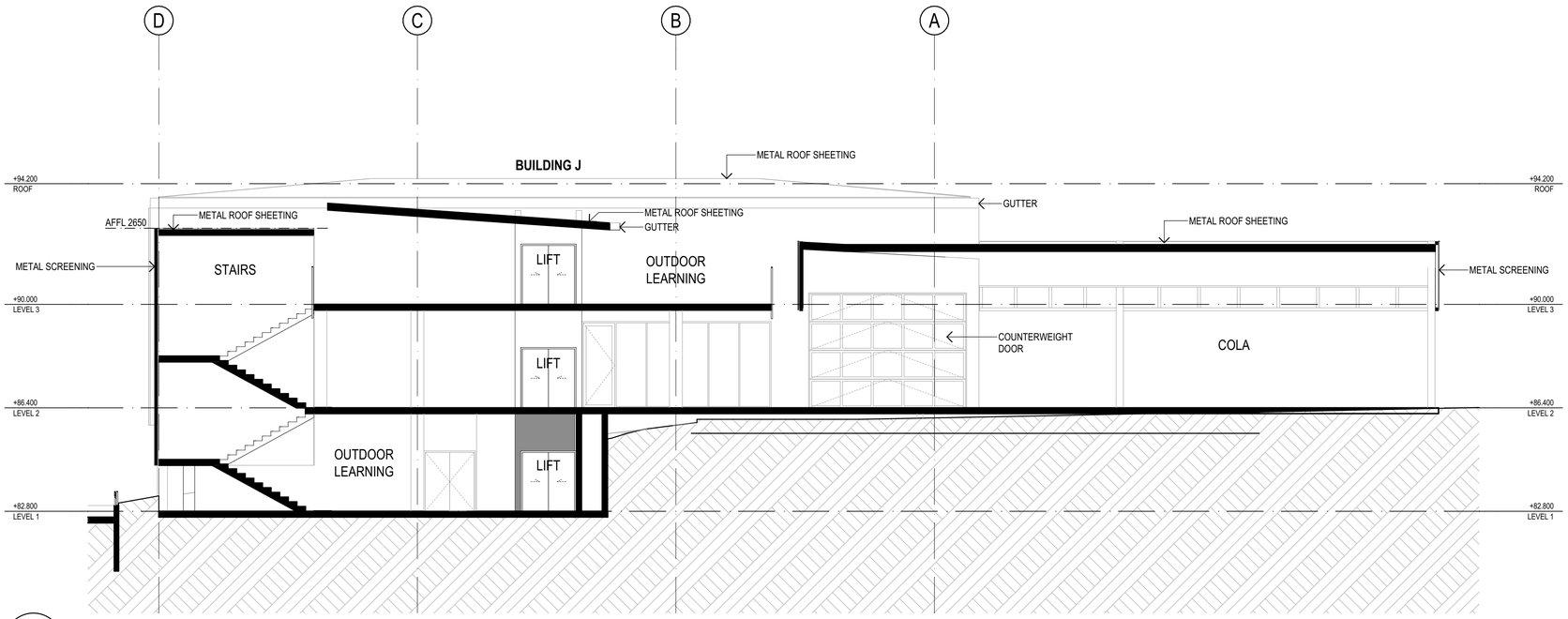
PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

DRAWING NUMBER	REVISION
SD-3102	A

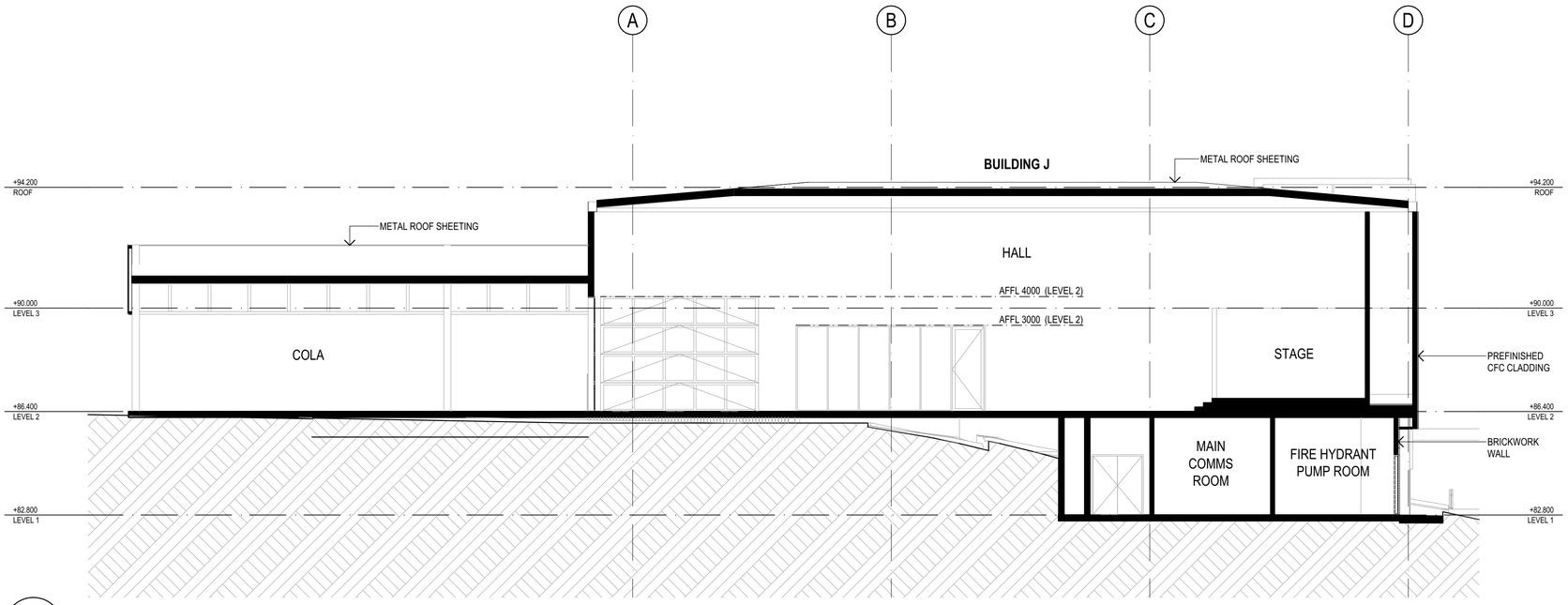
150mm @ A1
100
50

SECTION LEGEND

- D101 — **DOOR LABEL**
- W101 — **WINDOW LABEL**
- XX99 / XX99 — **WALL MATERIAL / FINISH LABEL**
  - MATERIAL CODE *(REFER TO MATERIAL LEGEND)*
  - FINISH CODE *(REFER TO FINISHES LEGEND)*



1 SECTION
BUILDING J - SECTION
SCALE: 1:100



2 SECTION
BUILDING J - SECTION
SCALE: 1:100

REV.	DESCRIPTION	DATE	INIT.
A	Draft SSDA Issue	13/08/2021	BN

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PHASE: **SCHEMATIC DESIGN**

CLIENT: NSW DEPT OF EDUCATION (SCHOOLS INFRASTRUCTURE)

PROJECT: NORTH SYDNEY PUBLIC SCHOOL

ADDRESS: BAY ROAD
WAVERTON, NSW

DRAWING: **BUILDING J - SECTION 03**

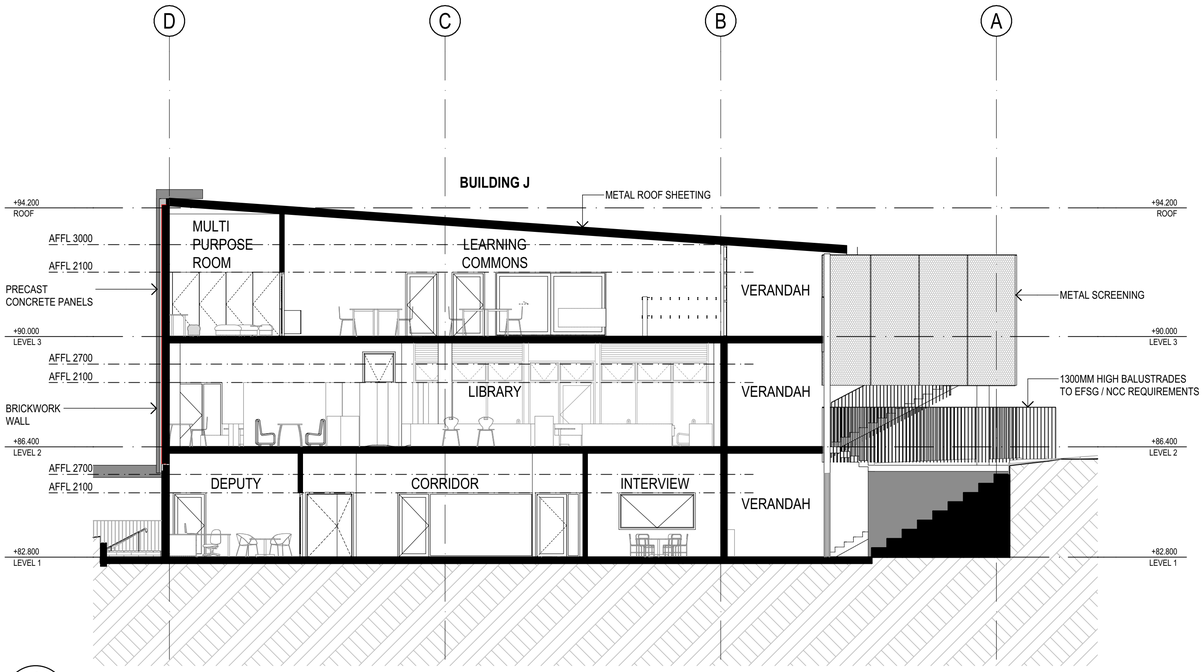
Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

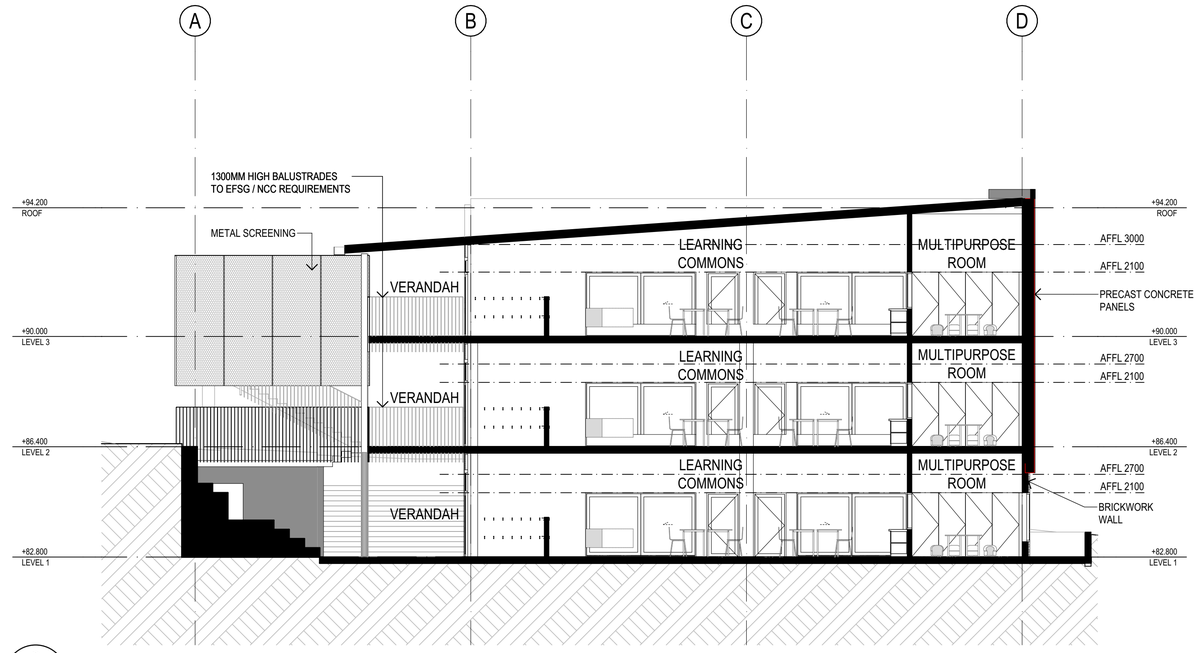
DRAWING NUMBER: **SD-3103**

REVISION: **A**

150mm @ A1
100
50



1 SECTION
BUILDING I - SECTION
SCALE: 1:100



2 SECTION
BUILDING I - SECTION
SCALE: 1:100

SECTION LEGEND

- D101 — **DOOR LABEL**
- W101 — **WINDOW LABEL**
- XX99 / XX99 — **WALL MATERIAL / FINISH LABEL**
  - MATERIAL CODE *(REFER TO MATERIAL LEGEND)*
  - FINISH CODE *(REFER TO FINISHES LEGEND)*

REV.	DESCRIPTION	DATE	INIT.
A	Draft SSDA Issue	13/08/2021	BN

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PHASE: **SCHEMATIC DESIGN**

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PROJECT: NORTH SYDNEY PUBLIC SCHOOL

ADDRESS: BAY ROAD
WAVERTON, NSW

DRAWING: **BUILDING I - SECTION 04**

Figured dimensions take precedence over scale dimensions. Contractors must verify all dimensions on site before commencing any work or making shop drawings.

PROJECT NUMBER	DIRECTOR	CHECKED
7068WA01	JW	

DRAWING NUMBER: **SD-3104**

REVISION: **A**

50 100 150mm @ A1

Appendix B Detailed Survey

LEGEND

TF - TOP FENCE
TW - TOP WALL
TK - TOP KERB
TG - TOP GUTTER
PP - POWER POLE
SMH - SEWER MANHOLE
GASV - GAS VALVE
SIP - SEWER INSPECTION POINT
TEL - TELSTRA PIT
FL - FLOOR LEVEL
0.1D/3S/5H - TREE DIAMETER, SPREAD, HEIGHT

S - SILL
H - HEAD
GASM - GAS METER
WM - WATER METER
HYD - HYDRANT
RDG - RIDGE

SCALE 1:400

0 10 20 30 40

A1

SHEET 4 0F 4

DRAWING No. B04584–DETAIL–A–2

BELLA VISTA

PO Box 7419
BAULKHAM HILLS NSW 2153
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BELLA VISTA NSW 2153
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email: office@projectsurveyors.com.au
www.projectsurveyors.com.au
ABN 20 068 433 974

PROJECT SURVEYORS

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Appendix C Engineering Plans

AURECON GROUP

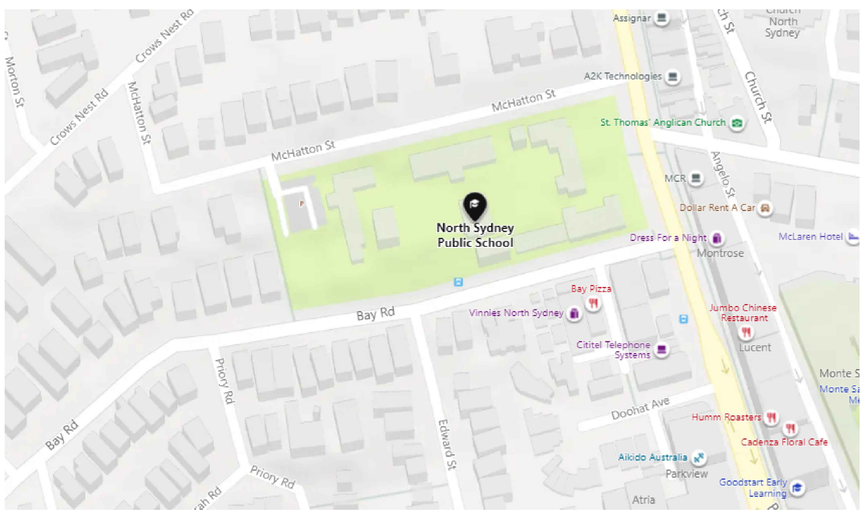
NORTH SYDNEY PUBLIC SCHOOL

182 PACIFIC HIGHWAY, NORTH SYDNEY, NSW 2060, AUSTRALIA

CIVIL SERVICES

CIVIL SERVICES DRAWING INDEX	
NUMBER	TITLE
NSPS-AUR-00-00-DR-CC-0001	DRAWING INDEX AND LOCALITY PLAN
NSPS-AUR-00-00-DR-CC-0002	GENERAL SITE NOTES
NSPS-AUR-00-00-DR-CC-0004	EROSION AND SEDIMENT CONTROL NOTES
NSPS-AUR-00-00-DR-CC-0009	EROSION AND SEDIMENT CONTROL LAYOUT PLAN
NSPS-AUR-00-00-DR-CC-0010	DEMOLITION AND SITE CLEARING LAYOUT PLAN
NSPS-AUR-00-00-DR-CC-0015	BULK EARTHWORKS LAYOUT PLAN
NSPS-AUR-00-00-DR-CC-0030	STORMWATER LAYOUT PLAN

LOCALITY PLAN



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PRELIMINARY

WORK IN PROGRESS

SIZE	DATE	DRAWING No.	PROJECT No.		NUMBER		REV
A1	18/08/2021		520128	–	NSPS-AUR-00-00-DR-CC-0001	–	C

1. GENERAL NOTES

1. THIS SET OF DRAWINGS SHALL BE READ IN CONJUNCTION WITH OTHER CONSULTANTS' PROJECT DRAWINGS.
2. MATERIALS AND WORKMANSHIP IN THE' WHOLE OF THE WORKS' SHALL COMPLY WITH THIS SPECIFICATIONS AND DEFENCE REQUIREMENTS.
3. ALL LEVELS ARE EXPRESSED IN METRES ON AHD. ALL X, Y, Z COORDINATES ARE IN METRES TO MGA.
4. ALL DIMENSIONS ARE IN METRES UNLESS SHOWN OTHERWISE.
5. THE DRAWINGS SHALL NOT BE SCALED.
6. ALL DIMENSIONS RELEVANT TO SETTING OUT SHALL BE CONFIRMED AND VERIFIED BY THE CONSTRUCTOR BEFORE COMMENCEMENT OF CONSTRUCTION. THE CONSTRUCTOR SHALL REPORT ANY DISCREPANCIES TO THE MANAGING CONTRACTOR.
7. PRIOR TO DEMOLITION OR CONSTRUCTION ON SITE, THE CONSTRUCTOR SHALL OBTAIN PERMITS FROM THE RELEVANT AUTHORITIES.
8. EXACT LOCATION AND DEPTH TO SERVICES ARE TO BE CONFIRMED WITH THE RELEVANT AUTHORITIES AND ON SITE BY THE CONSTRUCTOR PRIOR TO COMMENCING THE WORKS. THE CONSTRUCTOR SHALL OBTAIN THE RELEVANT PERMITS PRIOR TO ANY POTHOLING OF SERVICES.
9. WORKMANSHIP AND MATERIALS ARE TO BE IN ACCORDANCE WITH RELEVANT CURRENT AUSTRALIAN STANDARDS PLUS LOCAL STATUTORY AUTHORITIES' REQUIREMENTS EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
10. THE CIVIL SCOPE OF WORKS IS AS INDICATED ON THE DRAWINGS AND INCLUDES:

10.1. TRENCHING AND EXISTING CONCRETE CUTTING.
10.2. BACKFILL MATERIAL AND BACKFILLING.
10.3. COMPACTION.
10.4. SURVEY OF IN GROUND SERVICES.
10.5. COMMON SERVICES TRENCH AS BUILD DRAWINGS.
10.6. PAVEMENT REINSTATEMENT.
10.7. REMOVAL OF SPOIL

11. THE INTERFACE BETWEEN EXISTING SURFACES AND DESIGN SURFACES AS SHOWN ON THE DRAWINGS AND THE ANNOTATED CROSS SECTIONS ARE INDICATIVE ONLY. THE CONSTRUCTOR SHALL UNDERTAKE LOCALISED FILLING AND EXCAVATION WORKS AS REQUIRED TO PREVENT PONDING CONCENTRATION OR CHANNELING OF STORMWATER RUNOFF AT OR ALONG THE INTERFACE BETWEEN THE 'AS CONSTRUCTED' NEW SURFACES AND THE EXISTING SURFACES.
12. ALL DISCREPANCIES SHALL BE REFERRED TO THE MANAGING CONTRACTOR FOR DECISIONS BEFORE PROCEEDING WITH THE WORK.
13. NO SUBSTITUTIONS SHALL BE MADE WITHOUT OBTAINING THE APPROVALS OF THE MANAGING CONTRACTOR.
14. ALL MATERIALS AND ELEMENTS SHALL BE FIXED IN STRICT ACCORDANCE WITH THE MANUFACTURERS' SPECIFICATIONS FOR THE NOMINATED LOADING CONDITIONS AND THE SUPPORTING STRUCTURE SHOWN ON THESE DRAWINGS.
15. ALL EXISTING LEVELS AT CONNECTIONS TO EXISTING PIPES AND PITS TO BE VERIFIED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
16. ANY DAMAGE CAUSED TO EXISTING SERVICES WILL BE MADE GOOD AT THE SUB CONTRACTORS' EXPENSE.
17. ALL WORKS SHALL BE CARRIED OUT IN COMPLIANCE WITH THE WHS ACT 2011 AND ASSOCIATED STATE, TERRITORY OR LOCAL AUTHORITY REQUIREMENTS.
18. TESTING SHALL BE CARRIED OUT BY A COMPANY WITH NATA ACCREDITATION.
19. ALL CONCRETE WORKMANSHIP AND MATERIALS SHALL COMPLY WITH THE SPECIFICATION AND AS 3600.
20. CONCRETE COVER 40MM UNLESS NOTED OTHERWISE.
21. WHERE NEW CONCRETE IS TO BE POURED AGAINST EXISTING CONCRETE, THE EXISTING FACE SHALL BE SCABBLED, AND CLEANED WITH A WATER BLAST TO REMOVE ALL DUST AND LOOSE PARTICLES PRIOR TO NEW CONCRETE BEING POURED.
22. ALL REINFORCING STEEL TO BE GRADE 500N AS/NZS 4671 UNO.
23. ALL REINFORCEMENT TO BE ACRS CERTIFIED.

BULK EARTHWORKS NOTES

1. THE EARTHWORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH AS3798-2007 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENT"
2. BEFORE FILLING OF THE SITE COMMENCES, TOPSOIL AND VEGETATION SHALL BE STRIPPED AND SILT FENCE MUST BE PLACED IN A SUITABLE LOCATION. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED TO PREVENT EROSION.
3. ALL EXCESS SPOIL IS TO BE REMOVED FROM SITE AND WILL NOT BE ALLOWED TO BE PERMANENTLY STOCKPILED ON SITE.
4. FILL IS TO BE COMPACTED IN LAYERS NOT EXCEEDING 250MM LOOSE MEASUREMENT. EACH LAYER OF FILL SHALL BE PLACED WITH CONTROLLED MOISTURE CONTENT AND COMPACTED TO A MINIMUM OF 98% DRY DENSITY RATIO USING STANDARD COMPACTION AND IN ACCORDANCE WITH AS1289.5.1.1
5. REUSE OF WEATHERED SANDSTONE, WHEN BROKEN DOWN ON EXTRACTION, MAY BE USED IN AREAS OF STRUCTURAL FILL PROVIDED NO ROCK OVER 75MM GREATEST DIMENSION IS INCLUDED IN THE 30MM BELOW THE FINAL SUBGRADE/PLANE. BELOW THIS LEVEL, ROCK UP TO 150MM GREATEST DIMENSION MAY BE USED. THESE ROCK SHOULD NOT REPRESENT MORE THAN 20% OF THE FILL MAKE-UP. ROCKS OVER 150MM GREATEST DIMENSION SHOULD BE REMOVED.
6. IMPORTED FILL SHALL HAVE THE FOLLOWING PROPERTIES:
   MAXIMUM STONE SIZE (MM) - 75
   PASSING 19.0MM SIEVE (%) - 80-100
   MINIMUM SOAKED CBR (%) - 10
   MAXIMUM SHRINK-SWELL INDEX - 1.5*
   * SAMPLES REMOULDED AT 95% STANDARD COMPACTION AT OPTIMUM MOISTURE CONTENT.
   IMPORTED FILL SHALL HAVE MAXIMUM PARTICLE SIZE OF 75MM, A MAXIMUM LIQUID LIMIT OF 45 AND MAXIMUM PLASTICITY INDEX OF 15 AND A MINIMUM 4 DAY SOAKED CBR VALUE OF 10 AND FREE OF CONTAMINANTS AS PER AS3798 SECTION 4.3. ALL MATERIAL SIZE PASSING 50MM SIZE MUST BE NOT MORE THAN 30% IN VOLUME.
7. LEVEL 1 TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH AS3798-2007 AND CERTIFIED BY A RPEQ GEO-TECHNICAL ENGINEER
8. COMMERCIAL FILL (TO SUPPORT MINOR LOADINGS) SHALL BE COMPACTED TO 98% STANDARD COMPACTION IN ACCORDANCE WITH AS1289.5.1.1.
9. ALL PERMANENT FILL BATTERS ARE TO BE A MAXIMUM OF 1 IN 4 U.N.O.
10. ALL TEMPORARY CUT BATTERS ARE TO BE A MAXIMUM OF 1 IN 1 U.N.O.
11. RETAINING WALLS GREATER THAN 1.0M HIGH SHALL BE TO AN APPROVED ENGINEER'S DESIGN.
12. BACKFILLING TO BE PLACED IN A MANNER SUCH THAT NO LATERAL LOADING IS IMPOSED ON THE WALL.
13. ANY EXISTING GROUND RETAINING FILL MUST BE ASSESSED BY A GEO-TECHNICAL ENGINEER IN ACCORDANCE TO AS3798-2007
11. RETAINING WALLS GREATER THAN 1.0M HIGH SHALL BE TO AN APPROVED ENGINEER'S DESIGN.

LINE MARKING

1. ALL LINE MARKING TO BE IN ACCORDANCE WITH AS1742-2014

PAVEMENT

1. ALL ROAD REINSTATEMENT TO COMPLY WITH EXISTING CONDITIONS

TRENCHING

1. TRENCHING SHALL BE CARRIED OUT IN ACCORDANCE WITH AS2870-2011.
2. BACKFILL MATERIAL SHALL BE CLAY COMPACTED TO 95% OF MAXIMUM DRY DENSITY IN THE FIRST 300MM WITHIN 1.5M FROM BUILDING. PIPES BELOW FOOTING SHALL BE COMPACTED TO FULL DEPTH WITH CLAY COMPACTED TO 95% MAXIMUM DRY DENSITY.
3. THE MATERIAL SHALL:
   - BE CAPABLE OF BEING SHAPED TO FORM A UNIFORM SUPPORT FOR THE SERVICE
   - BASE OF TRENCHES SHALL BE SLOPED AWAY FROM THE BUILDING
   - MATERIAL USED TO ENSURE NO INGRESS OF WATER OCCURES WITHIN THE TRENCH
4. SUPPLY AND INSTALLATION OF PITS, PIPES, VALVES AND CONDUITS IS BY INDIVIDUAL TRADES AS FOLLOWS:

4.1. WATER MAIN PIPE AND VALVES BY HYDRAULICS TRADE. REFER TO HYDRAULICS DRAWING SET FOR DETAILS.
4.2. SEWER AND GAS PIPE AND VALVES BY HYDRAULICS TRADE. REFER TO HYDRAULICS DRAWING SET FOR DETAILS.
4.3. ELECTRICAL CONDUITS BY ELECTRICAL TRADE. REFER TO ELECTRICAL ET DRAWING SET FOR DETAILS.
4.4. COMMUNICATIONS CONDUITS AND PITS BY ELECTRICAL TRADE. REFER TO ELECTRICAL DRAWING SET FOR DETAILS.
4.5. CIVIL TRADE TO UNDERTAKE LEAD CO-ORDINATION ROUTE.

STORMWATER DRAINAGE

1. GENERAL

1.1. ALL CIVIL STORMWATER DRAINAGE LINES ARE TO BE CONSTRUCTED OF CLASS 3 PIPE UNLESS OTHERWISE NOTED.
1.2. ALL STORMWATER PIPEWORK IS TO BE LAID WITH THE SOCKET FACING UPSTREAM. ALL WORKS ARE TO BEGIN AT THE OUTLET END OF EACH LINE, WORKING IN UPSTREAM DIRECTION.
1.3. THE SUBCONTRACTOR SHALL ORGANISE AND STAGE CONSTRUCTION WORK AND UNDERTAKE ANY DIVERSION WORKS TO ENSURE EXISTING DRAINS ARE ABLE TO CONVEY ALL STORMWATER FLOWS THAT MAY OCCUR DURING THE PERIOD OF THE CONSTRUCTION WORKS.
1.4. THE CONTRACTOR SHALL PROVIDE DIVERSION WORKS ETC. TO PROTECT WORKS IN PROGRESS UNTIL SUCH A TIME WHEN THE WORKS ARE IN A FINISHED AND STABLE CONDITION.
1.5. ANY DAMAGE TO THE WORKS, DUE TO STORMWATER FLOWS OR FLOODING DURING THE CONSTRUCTION PERIOD, SHALL BE AT THE CONTRACTORS' RISK.
1.6. THE STORMWATER PIPE CLASSES HAVE BEEN DESIGNED TAKING INTO ACCOUNT THE FINAL DESIGN USE LOADING. IF THE SUBCONTRACTOR SHOULD ASSESS ACTUAL PROPOSED CONSTRUCTION LOADS AND PIPE CLASSES ARE TO BE UPGRADED, IN ACCORDANCE WITH AS3725, IT IS AT THE CONTRACTOR'S COST.
1.7. ALL STORMWATER DRAINAGE WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH AS2032, AS2033 AND AS3725 AND DRAWINGS.
1.8. PLEASE NOTE THAT THE STORMWATER QUALITY MANAGEMENT PLAN NOMINATED IS A COMPLETE SYSTEM. SHOULD THE CONTRACTOR PROPOSE AN ALTERNATIVE THEN SUPPORTING DESIGN FOR THE ENTIRE SYSTEM WILL NEED TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

2. PE (POLYETHYLENE PIPES)

2.1. ALL PIPES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AS/NZS 5065 - 'POLYETHYLENE (PE) AND POLYPROPYLENE (PP) PIPES AND FITTINGS FOR DRAINAGE AND SEWER APPLICATIONS'.

2.1.1. PIPES SHALL BE INSTALLED AS PER REQUIREMENTS OF AS/NZS2033 - 'INSTALLATION OF POLYETHYLENE PIPE SYSTEMS'.
2.1.2. MINIMUM COVER TO PIPES SHALL BE AS FOLLOWS; AS SHOWN ON THE INDIVIDUAL UNIT DRAWINGS

LOCATION	MINIMUM COVER (m)
NOT SUBJECT TO VEHICULAR LOADING	0.30
SUBJECT TO VEHICULAR LOADING	
- NOT IN ROADWAYS	0.45
- IN SEALED ROADWAYS	0.60
- IN UNSEALED ROADWAYS	0.75
PIPES IN EMBANKMENT CONDITIONS OR SUBJECT TO CONSTRUCTION EQUIPMENT LOADING	0.75

2.1.3. ALL PIPE BEDDING MATERIALS SHALL BE IN ACCORDANCE WITH AS/NZS2566.2 - 'BURIED FLEXIBLE PIPELINES - PART 2 INSTALLATION'
2.1.4. PIPES SHALL BE INSTALLED ON BEDDING MATERIAL NOT LESS THAN 75MM THICK, WITH COMPACTED SIDE PIPE SUPPORT NO LESS THAN 100MM THICK BETWEEN THE EDGE OF PIPE AND EDGE OF TRENCH WALL.
2.1.5. PIPE OVERLAY SHALL BE NO LESS THAN 150MM THICK.

3. DRAINAGE STRUCTURES

3.1. THE SUBCONTRACTOR MAY ELECT TO SUBSTITUTE PRECAST PITS FOR CAST INSITU PITS SHOWN ON THE DRAWINGS. DETAILS OF ANY PROPOSED PRECAST ELEMENTS MUST BE SUBMITTED TO THE ENGINEER PRIOR TO PROCUREMENT.
3.2. ACCESS CHAMBERS SHALL BE IN ACCORDANCE WITH IPWEA STD DRG D-0010.
3.3. ALL INLET PITS, GRATES AND MANHOLE LIDS TO BE IN ACCORDANCE WITH AS3996, CLASS AS SPECIFIED ON THE DRAWINGS.
3.4. THE SETOUT OF ALL MANHOLES IS TO THE CENTRE OF MANHOLE AND FOR GULLY PITS TO THE CENTRE OF CHAMBER. DESIGN SURFACE LEVEL FOR MANHOLES IS TO THE TOP OF LID AND FOR GULLY PITS THROUGH LIP LEVEL AT CENTRE OF THE GRATE.
3.5. MANHOLE ACCESS LIDS TO BE LOCATED AT THE CENTRE OF ROADS, AWAY FROM VEHICLE TRACKS UNLESS NOTED OTHERWISE SHOWN ON THE DRAINAGE DETAILS PLANS.
3.6. ALL LIDS AND GRATES TO BE CLASS D IN ROADWAYS AND CLASS B IN PEDESTRIAN ONLY ZONES UNLESS OTHERWISE NOTED ON DRAWINGS.
3.7. STEEL GRATES AND FRAMES ARE TO BE FABRICATED FROM MILD STEEL AND HOT DIP GALVANISED. ALL GRATES ARE TO BE BICYCLE SAFE IN ACCORDANCE WITH AUSTRALIAN STANDARD AS3996 UNLESS NOTED OTHERWISE.
3.8. GRATE SUPPORT TO BE CONSTRUCTED LEVEL TO ENSURE THAT THE GRATE DOES NOT ROCK AFTER INSTALLATION.
3.9. PROVIDE STEP IRONS TO AS1657 WHERE CHAMBER WALL HEIGHTS EXCEED 1200MM.
3.10. PROVIDE MASS CONCRETE BENCHING (N32) IN STORMWATER ACCESS CHAMBERS TO ALLOW MINIMUM 30MM FALL ACROSS PITS.
3.11. WHERE A CONNECTION IS TO BE MADE TO AN EXISTING DRAINAGE PIPE OR STRUCTURE, THE LEVEL OF THAT PIPE OR STRUCTURE MUST BE CONFIRMED PRIOR TO THE CONSTRUCTION OF THE NEW DRAIN LINES.
3.12. EXISTING PITS AND MANHOLES SHOWN ON THE PLANS ARE TO BE REMOVED TO A LEVEL BELOW THE BOTTOM OF THE WORKING PLATFORM AND FILLED WITH CEMENT GROUT.
3.13. A 2.0M LENGTH OF 80MM (MIN) DIAMETER SUBSOIL DRAIN, SLEEVED IN A GEOTEXTILE SOCK, IS TO BE PLACED IN THE BEDDING UPSTREAM OF ALL DRAINAGE STRUCTURES OUT-FALLING INTO THE DRAINAGE STRUCTURE.

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REV	DATE	REVISION DETAILS	APPROVED
A	28/07/2021	CONCEPT DESIGN	S.T-S
B	13/08/2021	SCHEMATIC DESIGN	S.T-S
C	18/08/2021	UPDATED CIVIL	S.T-S

SCALE: NTS | SIZE: A1

PRELIMINARY
NOT FOR CONSTRUCTION

DRAWN: D. NGUYEN
DESIGNED: H.NGUYEN
REVIEWED: T.PHAM
APPROVED
DATE
18/08/2021

PROJECT
NORTH SYDNEY PUBLIC SCHOOL
182 PACIFIC HIGHWAY, NORTH SYDNEY
NSW 2060, AUSTRALIA

TITLE
NORTH SYDNEY PUBLIC SCHOOL
GENERAL SITE NOTES

DRAWING NUMBER

PROJECT No.	NUMBER	REV
520128	NSPS-AUR-00-00-DR-CC-0002	C

EROSION & SEDIMENTATION CONTROL NOTES

1. GENERAL

1.1. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE DESIGNED, CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE IECA (INTERNATIONAL EROSION CONTROL ASSOCIATION) GUIDELINES AND THE FOLLOWING NOTES. PROPOSED CONTROL/MANAGEMENT PLANS ARE TO BE SUBMITTED TO THE MANAGING CONTRACTOR FOR ENDORSEMENT PRIOR TO COMMENCEMENT OF ANY WORKS ONSITE.

1.2. WHERE DESIGNED MEASURES DO NOT SUIT SITE CONDITIONS THE CONTRACTOR IS TO SUBMIT PROPOSED CHANGES TO ONSITE MEASURES FOR THE ENGINEERS APPROVAL. ALL MEASURES ARE TO BE INSTALLED/CONSTRUCTED AND MAINTAINED FOR THE DURATION OF THE PROJECT.

1.3. REFER TO IECA STANDARD DRAWINGS FOR EROSION AND SEDIMENT CONTROL MEASURES WHERE DETAILS NOT PROVIDED ON DRAWINGS.

1.4. THE CONTRACTOR IS RESPONSIBLE FOR THE MANAGEMENT OF DUST ONSITE INCLUDING THE PROVISION OF WATER TRUCKS AS NECESSARY TO MINIMISE DUST.

2. TOPSOIL

2.1. STRIP & STOCKPILE AVAILABLE TOPSOIL (ASSUMED AVERAGE DEPTH 150mm) FROM DISTURBED AREAS PRIOR TO BULK EARTHWORKS. GRADE BULK EARTHWORKS SURFACE LEVEL EVENLY TO ENSURE SITE IS FREE DRAINING.

2.2. MINIMUM SLOPE ACROSS SITE TO BE 1.0%.

2.3. ALL FOOTPATHS, BATTERS & EARTHWORKS AFFECTED AREAS ARE TO BE TOPSOILED TO A MINIMUM DEPTH OF 100mm (LIGHTLY COMPACTED) & GRASS SEEDED (OR TURFED WHERE SPECIFIED).

3. SEDIMENT FENCES

3.1. SEDIMENT FENCES TO BE REPAIRED AS REQUIRED & EXCESSIVE SEDIMENT DEPOSITS SHOULD BE REMOVED.

3.2. IN THE EVENT OF WET WEATHER, INSTALL KERB INLETS FILTER WITH GRAVEL RANGING FROM 50mm TO 75mm IN SIZE. REFER IPWEA STANDARD DRAWING DS-041. IF THE GRAVEL FILTER BECOMES CLOGGED WITH SEDIMENT DURING ITS USE, THE GRAVEL MUST BE PULLED AWAY FROM THE MESH & CLEANED OR REPLACED.

3.3. REGULAR WEEKLY CHECKS OF SILT FENCES IS TO BE MADE ALONG WITH A CHECK AFTER ANY SIGNIFICANT STORM EVENT TO ENSURE INTEGRITY & PERFORMANCE.

4. TURFING

4.1. UNLESS OTHER PERMANENT APPROVED SURFACE TREATMENT TO BE INSTALLED, PROVIDE TURFING TO ENTIRE WIDTH OF ALL SWALES, OVERLAND FLOW PATHS, FOOTPATHS AND CUT & FILL BATTERS STEEPER THAN 1 IN 4 .

4.2. ALL FLOW PATHS AND BATTERS ARE TO BE STABILISED WITH TOPSOIL & TURFED AS SOON AS PRACTICAL AFTER THE BATTERS HAVE BEEN COMPLETED. ALL REMAINING EXPOSED AREAS ARE TO BE SEEDED, HYDROMULCHED OR MULCHED UNLESS OTHERWISE SPECIFIED BY THE LANDSCAPE ARCHITECT.

5. DURING CONSTRUCTION SEQUENCE

5.1. TOPSOIL STOCKPILE SITE TO HAVE A SEDIMENTATION FENCE CONSTRUCTED ON DOWNSTREAM SIDE.

5.2. SEDIMENTATION FENCES TO BE PLACED ON DOWNHILL SIDE OF ALL DISTURBED AREAS AND AS SHOWN ON PLANS

5.3. REGULARLY INSPECT BANKS & REPAIR ANY SLUMPS, WHEEL TRACK DAMAGE OR LOSS OF FREEBOARD

5.4. REMOVE SEDIMENT TO AVOID PONDING FROM CATCH DRAINS

5.5. REMOVE EXCESSIVE SEDIMENT FROM UPSTREAM OF CHECK DAM.

5.6. A CATCH DRAIN BANK IS TO BE PROVIDED ON THE TOP SIDE OF ALL CUTS & DISCHARGED EITHER TO UNDISTURBED GRASS LANDS OR FORMAL DRAINAGE NETWORK.

5.7. SUPPLEMENTARY EROSION & SEDIMENT CONTROL DEVICE MAY BE REQUIRED AT THE DISCRETION OF THE ENGINEER OR LOCAL AUTHORITY.

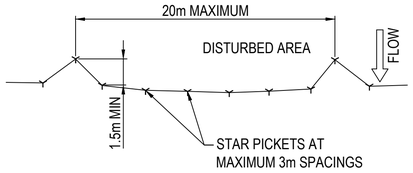
5.8. CONSTRUCTION ACCESS SHALL ONLY BE VIA STABILISED SITE ACCESS POINT(S).

5.9. FOR DETAILS OF TEMPORARY CONSTRUCTION ENTRY / EXIT SEDIMENT TRAP REFER TO IPWEA STANDARD DRAWING DS-040.

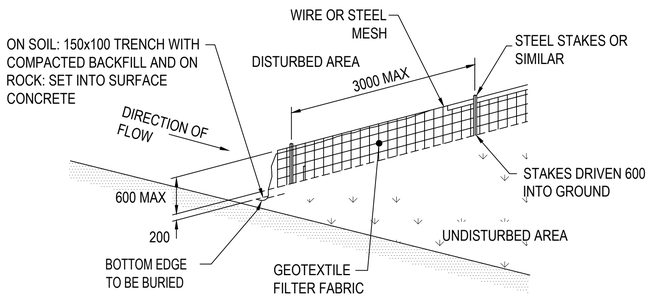
5.10. GRASS SEEDING IS TO ACHIEVE 70% COVER WITHIN 30 DAYS OF COMPLETION OF EARTHWORKS.

6. FOLLOWING CONSTRUCTION

6.1. SEDIMENTATION FENCES TO BE MAINTAINED UNTIL TURFING IS COMPLETED & GRASS IS 80% ESTABLISHED AND ALL OTHER LANDSCAPE AND HARDSCAPE SURFACE TREATMENTS ARE INSTALLED.

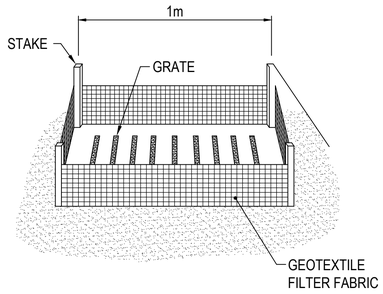


SEDIMENT FENCE PLAN

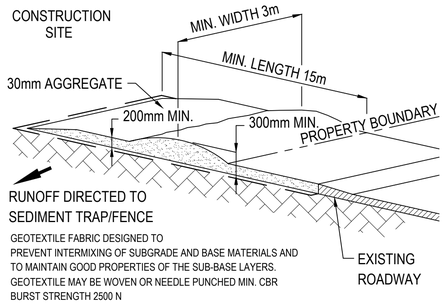


SEDIMENT FENCE

DRAINAGE AREA 0.6ha MAXIMUM.
SLOPE GRADIENT 1:2 MAXIMUM.
SLOPE LENGTH 60m MAXIMUM.



GEOTEXTILE STORMWATER INLET FILTER



GEOTEXTILE FABRIC DESIGNED TO PREVENT INTERMIXING OF SUBGRADE AND BASE MATERIALS AND TO MAINTAIN GOOD PROPERTIES OF THE SUB-BASE LAYERS. GEOTEXTILE MAY BE WOVEN OR NEEDLE PUNCHED MIN. CBR BURST STRENGTH 2500 N

STABILISED SITE ACCESS

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NSW GOVERNMENT Education School Infrastructure

REV	DATE	REVISION DETAILS	APPROVED
A	13/08/2021	SCHEMATIC DESIGN	S.T-S
B	18/08/2021	UPDATED CIVIL	S.T-S

SCALE	SIZE
NTS	A1

PRELIMINARY
NOT FOR CONSTRUCTION

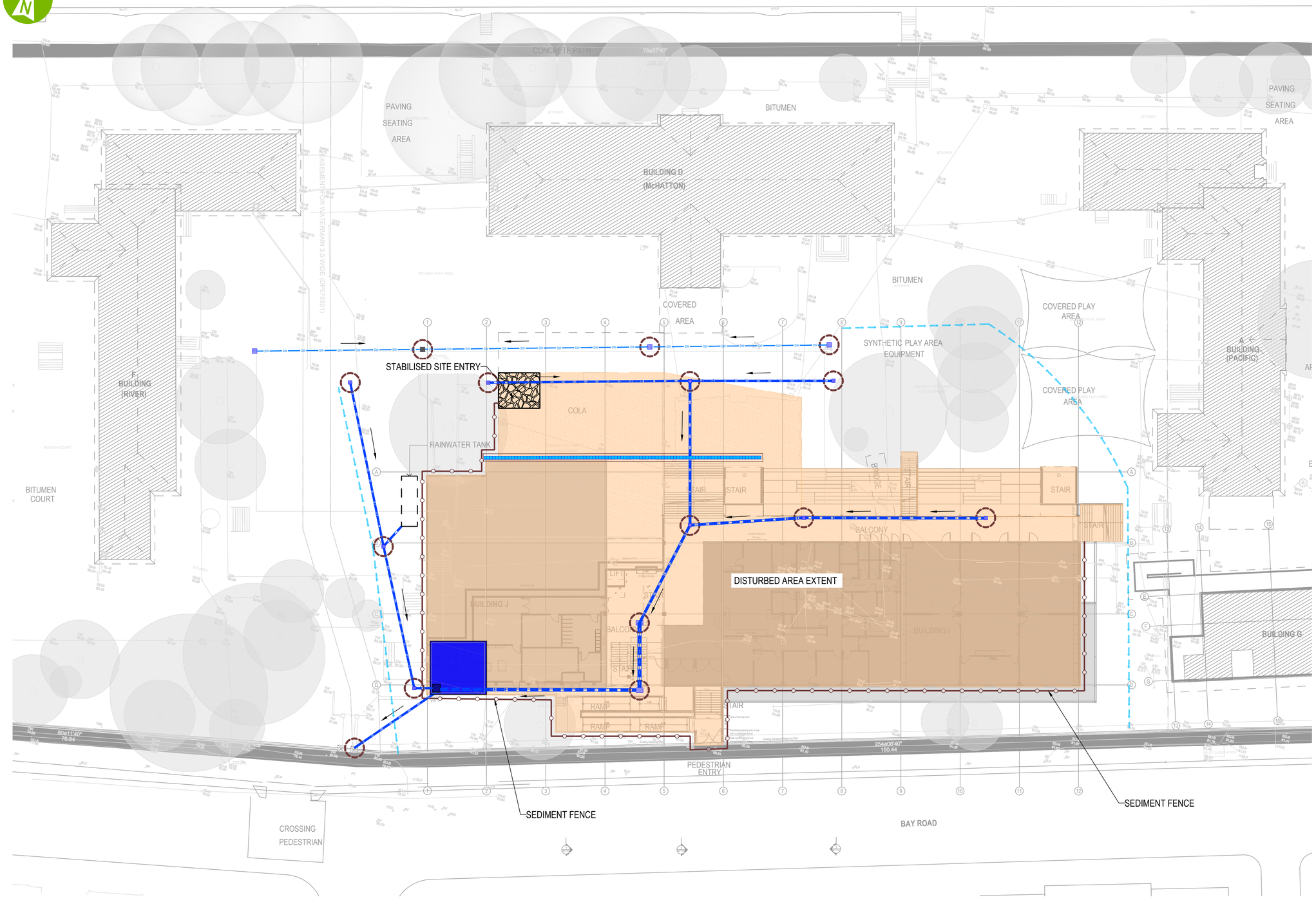
DRAWN: D. NGUYEN
DESIGNED: H.NGUYEN
REVIEWED: T.PHAM
APPROVED DATE: 18/08/2021

PROJECT
NORTH SYDNEY PUBLIC SCHOOL
182 PACIFIC HIGHWAY, NORTH SYDNEY
NSW 2060, AUSTRALIA

TITLE
NORTH SYDNEY PUBLIC SCHOOL
EROSION AND SEDIMENT CONTROL NOTES

DRAWING NUMBER

PROJECT No.	NUMBER	REV
520128	NSPS-AUR-00-00-DR-CC-0004	B



GENERAL NOTES:

1. FOR GENERAL SITE WIDE NOTES, REFER TO CC-0002
2. FOR EROSION AND SEDIMENT CONTROL NOTES, REFER TO CC-0003.
3. ESTABLISH STABILISED SITE ENTRY/EXIT POINT.
4. INLET PROTECTION TO BE PROVIDED ON ALL EXISTING GULLY AND FIELD INLETS.

2.5 0 5 10m
SCALE 1:250

PRINT IN COLOUR

LEGEND:

- GEOTEXTILE INLET FILTER
- SEDIMENT FENCE
- STABILISED SITE ENTRY
- DISTURBED AREA
- GRATED INLET SEDIMENT TRAP
- EXISTING STORMWATER PIT
- EXISTING STORMWATER PIPE
- DESIGN ON-SITE DETENTION TANK
- DESIGN STORMWATER PIT
- DESIGN STORMWATER PIPE
- 300mm WIDE ACO HEELGUARD ANTI-SLIP TRENCH GRATE
- STORMWATER DIVERSION PIPE
- PROPOSED OVERLAND FLOW PATH
- DIRECTION OF FLOW

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NSW GOVERNMENT Education School Infrastructure

REV	DATE	REVISION DETAILS	APPROVED
A	13/08/2021	SCHEMATIC DESIGN	S.T-S
B	18/08/2021	UPDATED CIVIL	S.T-S

SCALE	SIZE
1:250	A1

PRELIMINARY
NOT FOR CONSTRUCTION

DRAWN: D. NGUYEN
DESIGNED: H.NGUYEN
REVIEWED: T.PHAM
APPROVED DATE: 18/08/2021

PROJECT
NORTH SYDNEY PUBLIC SCHOOL
182 PACIFIC HIGHWAY, NORTH SYDNEY
NSW 2060, AUSTRALIA

TITLE
NORTH SYDNEY PUBLIC SCHOOL
EROSION AND SEDIMENT CONTROL
LAYOUT PLAN

DRAWING NUMBER

PROJECT No.	NUMBER	REV
520128	NSPS-AUR-00-00-DR-CC-0009	B

5 0 10 20m

SCALE 1:500

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LEGEND:

BUILDING TO BE DEMOLISHED

TREE TO BE MOVED

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NSW GOVERNMENT Education School Infrastructure

REV	DATE	REVISION DETAILS	APPROVED
A	13/08/2021	SCHEMATIC DESIGN	S.T-S
B	18/08/2021	UPDATED CIVIL	S.T-S

SCALE	SIZE
1:500	A1

PRELIMINARY
NOT FOR CONSTRUCTION

DRAWN: D. NGUYEN

DESIGNED: H.NGUYEN

REVIEWED: T.PHAM

APPROVED

DATE: *18/08/2021*

PROJECT

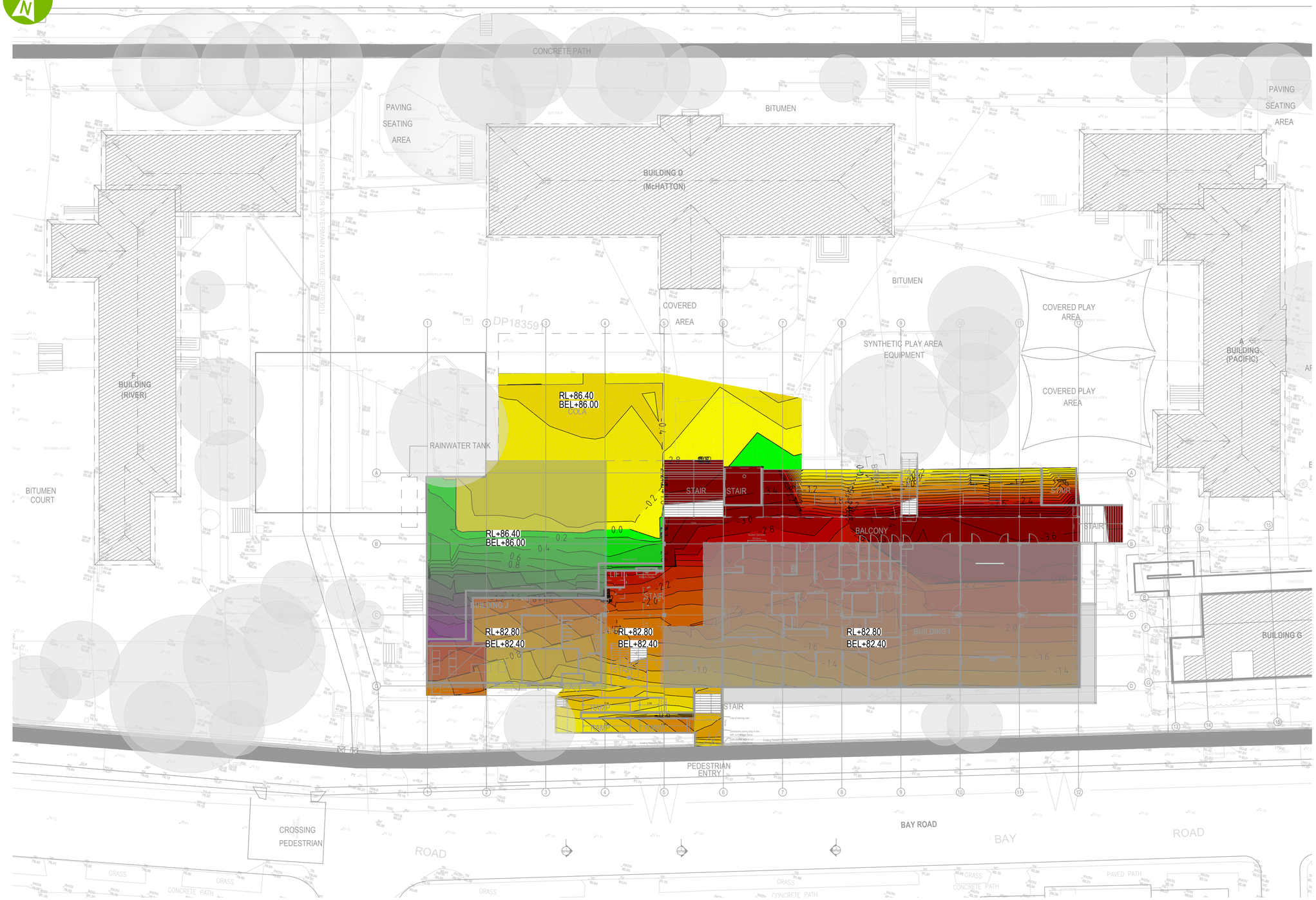
NORTH SYDNEY PUBLIC SCHOOL
182 PACIFIC HIGHWAY, NORTH SYDNEY
NSW 2060, AUSTRALIA

TITLE

NORTH SYDNEY PUBLIC SCHOOL
DEMOLITION AND SITE CLEARING
LAYOUT PLAN

DRAWING NUMBER

PROJECT No.	NUMBER	REV
520128	NSPS-AUR-00-00-DR-CC-0010	B



LEGEND

	COLOUR	HEIGHT RANGE (m)
CUT		0.00 - 0.20
		0.20 - 0.40
		0.40 - 0.60
		0.60 - 0.80
		0.80 - 1.00
		1.00 - 1.20
		1.20 - 1.40
		1.40 - 1.60
		1.60 - 1.80
		1.80 - 2.00
		2.00 - 2.20
		2.20 - 2.40
		2.40 - 2.60
		2.60 +
FILL		0.00 - 0.20
		0.20 - 0.40
		0.40 - 0.60
		0.60 - 0.80
		0.80 - 1.00
		1.00 - 1.20
		1.20 - 1.40
		1.40 - 1.60
		1.60 - 1.80
		1.80 - 2.00
		2.00 - 2.20
		2.20 - 2.40
		2.40 - 2.60
		2.60 +

NOTES:

1. FOR GENERAL SITE WIDE NOTES, REFER TO CC-0002
   EARTHWORKS CUT AND FILL SHADING BASED ON SUBGRADE VERSUS EXISTING SURFACE
2. THE CONTOURS SHOWN ARE BULK EARTHWORKS SURFACE LEVELS. ALL QUANTITIES CONTAINED IN THE COST SCHEDULE HAVE BEEN CALCULATED O THE SUBGRADE LEVEL/ UNDERSIDE OF PROPOSED LEVELS
3. ALL EXISTING SERVICES ARE TO BE LOCATED PRIOR TO CONSTRUCTION TO CONFIRM DEPTHS.

BULK EARTHWORKS CUT/FILL	
VOLUME CUT (m3)	-4091.498
VOLUME FILL (m3)	267.361
BALANCE (m3)	-3824.137

2.5 0 5 10m
SCALE 1:250

PRINT IN COLOUR

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NSW GOVERNMENT Education School Infrastructure

REV	DATE	REVISION DETAILS	APPROVED
A	28/07/2021	CONCEPT DESIGN	S.T-S
B	13/08/2021	SCHEMATIC DESIGN	S.T-S
C	18/08/2021	UPDATED CIVIL	S.T-S

SCALE	SIZE
1:250	A1

PRELIMINARY
NOT FOR CONSTRUCTION

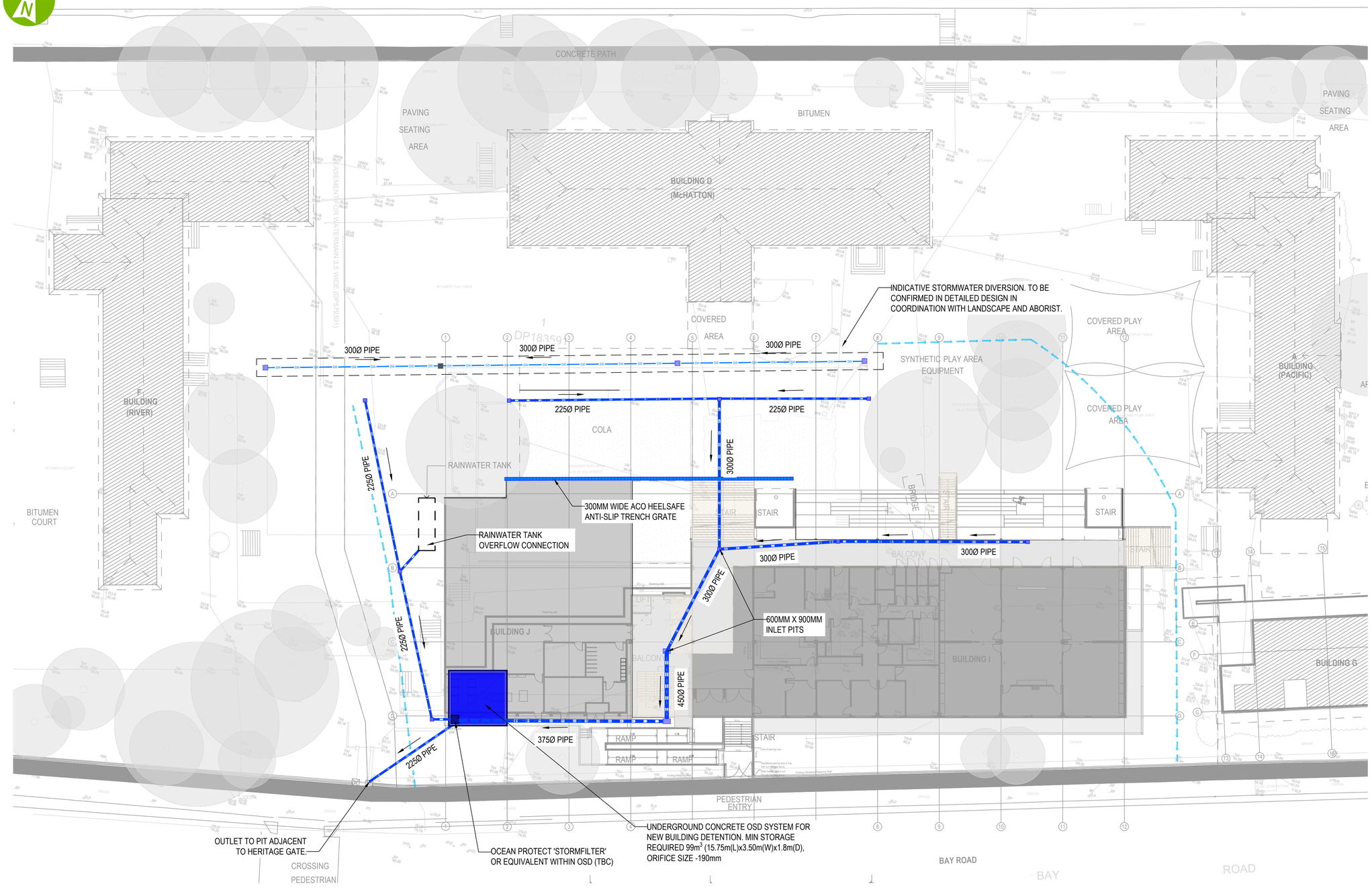
DRAWN: D. NGUYEN
DESIGNED: H.NGUYEN
REVIEWED: T.PHAM
APPROVED DATE: 18/08/2021

PROJECT
NORTH SYDNEY PUBLIC SCHOOL
182 PACIFIC HIGHWAY, NORTH SYDNEY
NSW 2060, AUSTRALIA

TITLE
NORTH SYDNEY PUBLIC SCHOOL
BULK EARTHWORKS
LAYOUT PLAN

DRAWING NUMBER

PROJECT No.	NUMBER	REV
520128	NSPS-AUR-00-00-DR-CC-0015	C



SURVEY NOTES:

1. EXISTING DRAINAGE AND INLET GRATES NOTED ON TOPOGRAPHICAL SURVEY TO BE CONFIRMED VIA DETAILED SURVEY AND SITE INSPECTION. EXISTING DRAINAGE ALIGNMENT TO BE CONFIRMED PRIOR TO DESIGN PROGRESSION.

GENERAL NOTES:

1. MINIMUM CIVIL PIPE SIZE TO BE 300MM Ø UNLESS NOTED OTHERWISE.
2. TYPICAL CIVIL PIPES TO BE "BLACKMX" OR EQUIVALENT.
3. PROPOSED INLET PITS TO BE 450 X 450 MINIMUM GRATES UNLESS OTHERWISE NOTED.
4. ALL INLET PITS TO BE FITTED WITH LITTER BASKETS
5. EXISTING DRAINAGE NETWORK TO BE CLEARED AND FLUSHED AS PART OF CONSTRUCTION ACTIVITIES
6. OSD TANK TO BE PROVIDED IN ACCORDANCE WITH NORTH SYDNEY ON-SITE STORMWATER DETENTION TECHNICAL SPECIFICATION.

2.5 0 5 10m
SCALE 1:250

PRINT IN COLOUR

LEGEND:

- EXISTING STORMWATER PIT
- EXISTING STORMWATER PIPE
- DESIGN ON-SITE DETENTION TANK
- DESIGN STORMWATER PIT
- DESIGN STORMWATER PIPE
- 300mm WIDE ACO HEELGUARD ANTI-SLIP TRENCH GRATE
- STORMWATER DIVERSION PIPE
- PROPOSED OVERLAND FLOW PATH
- DIRECTION OF FLOW

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NSW GOVERNMENT Education School Infrastructure

REV	DATE	REVISION DETAILS	APPROVED
A	28/07/2021	CONCEPT DESIGN	S.T-S
B	13/08/2021	SCHEMATIC DESIGN	S.T-S
C	18/08/2021	UPDATED CIVIL	S.T-S

SCALE	SIZE
1:250	A1

PRELIMINARY
NOT FOR CONSTRUCTION

DRAWN: D. NGUYEN
DESIGNED: H.NGUYEN
REVIEWED: T.PHAM
APPROVED DATE: 18/08/2021

PROJECT
NORTH SYDNEY PUBLIC SCHOOL
182 PACIFIC HIGHWAY, NORTH SYDNEY
NSW 2060, AUSTRALIA

TITLE
NORTH SYDNEY PUBLIC SCHOOL
STORMWATER
LAYOUT PLAN

DRAWING NUMBER

PROJECT No.	NUMBER	REV
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