Donnelley Simpson Cleary
Consulting Engineers

DEPARTMENT OF EDUCATION

NEW HIGH SCHOOL FOR MEDOWIE

Review of Environmental Factors

for

Hydraulic & Fire Services

Project No : 8334

Revision : Final Issue

REVISION SCHEDULE

No.	DATE	DESCRIPTION
1	29th November 2024	Draft Issue
2	21st January 2025	Final Issue

TABLE OF CONTENTS

1 INTRODUCTION

This Hydraulic and Fire Services Report has been prepared to support a Review of Environmental Factors (REF) for the proposed New High School for Medowie (the activity). The purpose of the REF is to assess the potential environmental impacts of the activity prescribed by State Environmental Planning Policy (Transport and Infrastructure) 2021 (T&I SEPP) as "development permitted without consent" on land carried out by or on behalf of a public authority under Part 5 of the Environmental Planning and Assessment Act 1979 (EP&A Act).

The activity is to be undertaken pursuant to Chapter 3, Part 3.4, Section 3.37 of the T&I SEPP.

The activity will be carried out at 6 Abundance Road, Medowie (the site). The purpose of this report is to:

- Identify existing water and sewer infrastructure.
- Identify proposed incoming water and sewer infrastructure to support the activity.

1.1 SITE DESCRIPTION

The site has a street address of 6 Abundance Road, Medowie. It is 6.51ha in area, and comprises 1 allotment, legally described as Lot 3 in DP788451.

A large proportion of the site is currently unused and vacant. A small shed structure and caravan are located adjacent to the northern boundary. A cluster of buildings, including a single-storey dwelling, an outhouse/shed structure and a temporary greenhouse, are located within the southeastern corner.

The site contains a largely vegetated area in the southwest corner. It is relatively flat and gradually falls from west to east toward Abundance Road.

The site has a primary frontage to Abundance Road to the east and Ferodale Road to the north. Abundance Road and Ferodale Road are both classified as Local Roads. Medowie Road is a classified Regional Road approximately 1km east of the site.

The area surrounding the site mostly consists of industrial, rural residential, educational, and agricultural lands. Adjacent to the northwestern boundary is a Shell petrol station and mechanic garage. Adjacent to the northeastern boundary is a medical health clinic. Across Abundance Road along the eastern boundary are several warehouses and light industrial developments. Directly north of the site across Ferodale Road are large lots used for agricultural purposes. Medowie Public School is located on Ferodale Road, to the northwest of the site, opposite the Shell petrol station.

An aerial image of the site is shown at Figure 1 below.

Figure 1 – Site Aerial

Source: Six Maps, edits by DSC

1.2 PROJECT DESCRIPTION

The proposed activity involves the construction of school facilities on the site for the purpose of the New High School for Medowie. The site contains a densely vegetated area to the southwest corner which is identified as land with high biodiversity values corresponding to the areas of remnant native vegetation (PCT 3995 – Hunter Coast Paperbark-Swamp Mahogany Forest). The existing dwelling house and other structures on the site will be demolished as part of the works. No other works are proposed within this area.

The proposed new school will accommodate 640 students in 29 permanent teaching spaces including 3 support teaching spaces across 3-storeys of buildings on the site. The proposed activity be delivered across 1 stage, and will consist of the following:
29 permanent teaching spaces including 3 support teaching spaces, to accommodate 640 students, and school hall to accommodate 1,000 students. Approximately 10,500 sqm of GFA is proposed.

- Main vehicular ingress and egress to Ferodale Road to the north, with a new pedestrian and vehicle crossing proposed.
- Main pedestrian access to Abundance Road.
- Kiss and ride, and bus drop and pick up areas to Abundance Road (6 x parallel spaces).
- New pedestrian wombat crossing to Abundance Road
- Approximately 55 x car parking spaces and 3 x accessible car parking spaces.
- Approximately 70 x bicycle parking spaces.
- Block A (Admin) consisting of administration and learning spaces.
- Block B (Foodtech/Workshop) consisting of food technology rooms and workshops.
- Block C (Hall) consists of the school hall accommodating 1,000 students.
- Central quad, 1 playing field, and 1 sports courtyard.

The proposed school development will include the following spaces; general learning spaces, General support learning spaces, administrative services, staff areas, gym and canteen, library areas for science,
wood and metal, food and textiles, health PE, performing arts, additional learning spaces, student amenities,
storage, movement (stairs and covered walkways).

2 ASSESSMENT OF UTILITIES - WATER AND WASTEWATER

Requirement	Y	N	N/A	Comments
Utilities				
Does the REF broadly set out how the proposal will be serviced by necessary services and utilities?	☒	☐	☐	
Does the REF assess any works required to provide necessary services and utilities and conclude that these would not have significant environmental affects?	☐	☒	☐	Hunter Water will undertake an assessment of the water and sewer mains and provide the notice of requirements in the next phase of design.
If on site water treatment is required, does the REF include an on-site wastewater management plan / land capability assessment that concludes that the site would be capable of accommodating wastewater without significant affects on the environment?	☐	☒	☐	An authority pressure sewer service is currently available at the site. Wastewater treatment is required before discharge to the pressure sewer main in accordance with Hunter Water connection requirements for pressure sewer connections. Therefore a on-site waste water management plan is not required as waste water is not being disbursed on site.

3 EXISTING SERVICES INFRASTRUCTURE

A desktop Before You Dig Australia (BYDA) study was conducted for the proposed Medowie High School site and the surrounding area. The following outlines the existing services and infrastructure around the site, providing context for the proposed activity servicing strategy.

3.1 WATER

The Hunter Water BYDA water services plan indicates that a 100mm Cast Iron Cement Lined (CICL) water main is located on the eastern side of Abundance Road and is available for the site's potable water connection and fire connection.

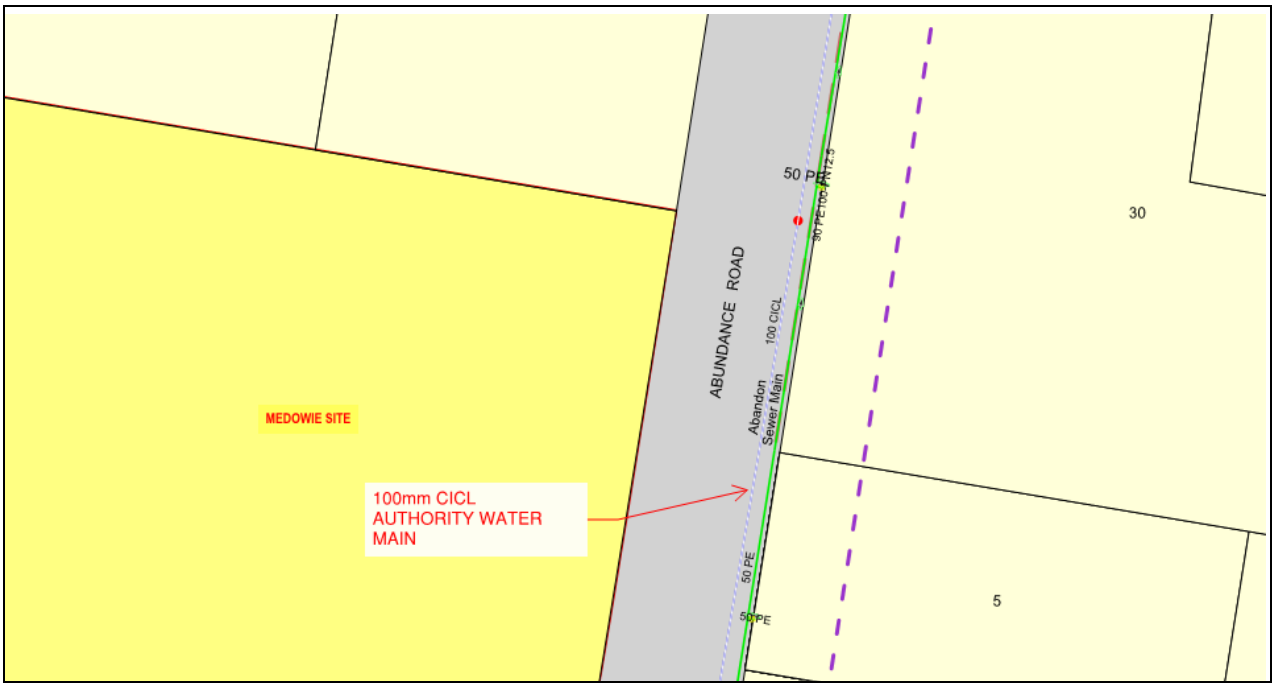


Figure 1 – BYDA Hunter Water - Water

3.2 SEWER

The Hunter Water BYDA sewer services plan indicates that a 50mm Polyethylene (PE) pressure sewer main is located on the eastern side of Abundance Road. The site sewer discharge will connect to the existing 40mm PVC incoming pressure sewer line. This connection is located at the site's southeast corner near the intersection of Industrial Road.

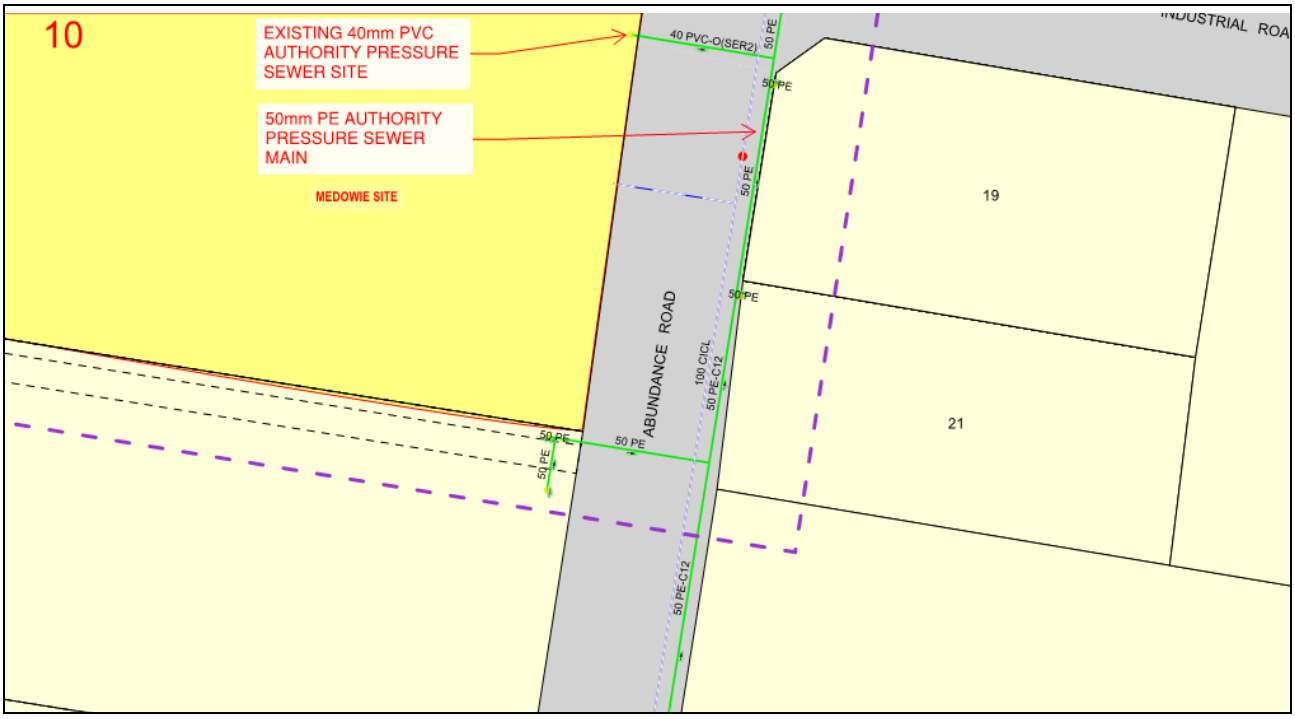


Figure 2 – BYDA Hunter Water - Sewer

4 PROPOSED INFRASTRUCTURE

4.1 WATER

The current water mains in Abundance Road are available to support the water demand for the new High School.

The proposed water infrastructure consists of:

- Domestic cold water connection 80mm with an authority water meter
- Fire hydrant system water connection 100mm
- Domestic cold water pumps for boosting the water pressure within the site
- Fire hydrant tanks with a total capacity of 72,000 Litres

Refer to Appendix A – Hydraulic site plan for the water connections and reticulation strategy.

4.2 SEWER

The existing pressure sewer boundary connection on Abundance Road is available for the discharge point for the pressure sewer mains, in accordance with Hunter Water's pressure sewer connection guidelines.

The proposed sewer infrastructure consists of:

- Septic tanks 7000L each x 2 off
- Sewer pumping stations 6000L x 2 off
- Property boundary connection kit for connection to the pressure sewer main.
- Gravity sewer drainage system from buildings draining to the septic tanks and sewer pumping stations
- Trade waste grease arrestor serving trade waste drainage from kitchens.
- Dilutions pit serving science lab trade waste drainage.

Refer to Appendix A – Hydraulic site plan for the sewer connection and reticulation strategy.

5 ENVIRONMENTAL CONSIDERATIONS

5.1 ENVIRONMENTAL IMPACT

- Trenching for underground water and drainage services could disturb soil and vegetation.
- Noise from construction activities may temporarily affect surrounding areas.
- Visual impact from above-ground installations such as fire hydrant booster assembly, water meters, fire water storage tanks and services plant rooms.

5.2 MITIGATION MEASURES FOR ENVIRONMENTAL IMPACTS

5.2.1 Trenching for underground water and drainage services

Soil disturbance mitigation:

- Minimise the trenching area by careful planning of service routes.
- Reuse excavated soil for backfilling to reduce waste.
- Stabilise exposed soil immediately after trenching by applying mulch, planting native vegetation, or using erosion control mats.
- Implement silt barriers and sediment control measures to prevent soil erosion and runoff into nearby water bodies.

Vegetation protection:

- Conduct a vegetation survey before trenching to identify and avoid significant or rare plant species.
- Transplant salvaged vegetation where feasible.
- Replant native species post-construction to restore disturbed areas.

5.2.2 Noise from Construction Activities

Mitigation measures:

- Restrict noisy activities to standard working hours to reduce disturbance to nearby residents.
- Use noise barriers or acoustic screens near sensitive areas.
- Ensure all equipment is well-maintained and fitted with noise-dampening devices, such as mufflers or silencers.
- Notify nearby residents and businesses about high-noise activities and expected duration.

5.2.3 Visual impact from above-ground installations

Design and landscaping:

- Use visually neutral or natural-coloured materials for fire hydrant booster assemblies, water meters, storage tanks, and plant rooms to blend with the surroundings.
- Position above-ground structures to minimise visibility from public spaces and sensitive areas.
- Implement landscaping measures, such as planting trees or shrubs, to screen the installations from view.
- Incorporate aesthetic design elements into above-ground installations to align with the local architectural style.

6 HYDRAULIC INFRASTRUCTURE IMPACTS

Potential disturbance during trenching for new water connections to the authority water mains and road opening.

7 HYDRAULIC INFRASTRUCTURE MITIGATION MEASURES

7.1 TRAFFIC CONTROL AND ROAD OPENING PROTECTION DURING EXTERNAL CONSTRUCTION WORKS

Traffic control and road opening protection are measures implemented to manage vehicular and pedestrian movement around construction zones, ensuring safety and minimising disruptions.

Mitigation Measures:

- Traffic Management Plan (TMP): Develop a comprehensive TMP before construction begins. This plan includes alternate routes, detour signs, and detailed layouts of the construction site to reduce congestion.
- Signage and Barriers: Place clear and visible warning signs, cones, and barriers to guide drivers and pedestrians safely through or around the construction area. Reflective materials should be used for nighttime visibility.
- Flaggers and Personnel: Employ trained personnel to direct traffic during active construction hours, especially in high-risk zones.
- Phased Construction: Schedule construction in phases to limit the road sections affected at any given time. This helps maintain partial road functionality.
- Public Communication: Notify local communities and commuters about road closures or delays via public announcements, social media, and signage well in advance.
- Access Points and Safety Zones: Designate safe pedestrian crossings, maintain emergency access routes, and create buffer zones for workers.

7.2 EROSION CONTROL MEASURES

Erosion control measures prevent soil displacement caused by construction activities, protecting nearby ecosystems, water bodies, and infrastructure.

Mitigation Measures:

- Silt Fences and Sediment Traps: Install barriers like silt fences or sediment traps around disturbed soil areas to capture eroded materials before they reach water bodies.
- Erosion Mats and Blankets: Use biodegradable mats to stabilize exposed soil on slopes and embankments. These also support vegetation growth.
- Vegetative Buffers: Maintain or establish vegetated strips between construction areas and water bodies to filter runoff.
- Proper Drainage Systems: Install drainage channels or culverts to manage water flow and direct it away from vulnerable areas.

7.3 RE-VEGETATION MEASURES

Re-vegetation involves restoring plant cover on disturbed soil after construction to stabilise the ground and promote ecological recovery.

Mitigation Measures:

- Native Plant Species: Use local, native plant species for re-vegetation to ensure better adaptability, biodiversity restoration, and minimal maintenance needs.

- Topsoil Replacement: Reapply stripped topsoil over disturbed areas to provide nutrients essential for plant growth.
- Tree and Shrub Planting: Plant trees and shrubs to Stabilise soil, provide shade, and enhance the landscape's aesthetic value.
- Timing of Planting: Align re-vegetation efforts with favorable growing seasons to maximise survival rates.
- Irrigation and Maintenance: Water the plants regularly and protect them from pests, diseases, and grazing animals during the establishment phase.

8 COMPLIANCE WITH STANDARDS AND REGULATIONS

The design aligns with:

- NCC 2022 and relevant Australian Standards, including AS3500 & AS2419.1
- NSW Department of Education's EFSG 2.0.
- Australian Standards
- Hunter Water - Guidelines and Standards
- Port Stephens Council – Engineering Standards
- Fire and Rescue NSW – Access for Fire Brigade Vehicles and Firefighters
- NSW Rural Fire Service – Planning for Bush Fire Protection

9 STAKEHOLDER CONSULTATION

- BYDA enquiry for Hunter Water is complete.
- Liaison with Hunter Water regarding sewer connection and discharge requirements for the site.
- A Section 50 application will be submitted to Hunter Water to confirm the notice of requirements at the next design stage.
- Coordination of water connections and approvals will commence at the next design stage.

10 CONCLUSION

The hydraulic and fire services proposed for the New High School for Medowie have been assessed with careful consideration of environmental, regulatory, and operational factors. Existing infrastructure has been evaluated, and planned enhancements to water and sewer services will adequately support the proposed development while complying with Hunter Water standards and other regulatory requirements.

Potential environmental impacts, such as soil disturbance, vegetation disruption, noise, and visual effects, have been identified, with mitigation strategies outlined to address these issues effectively. The project aligns with relevant standards, including the NCC 2022, Australian Standards, and guidelines from the NSW Department of Education, ensuring sustainable and safe implementation.

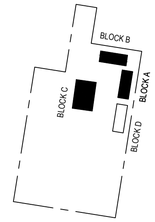
Through diligent planning and stakeholder engagement, this development is well-positioned to meet the needs of the community while minimising adverse environmental effects.

11 APPENDIX A – HYDRAULIC SERVICES

MEDOWIE HIGH SCHOOL

6 ABUNDANCE ROAD, MEDOWIE NSW 2318

HYDRAULIC SERVICES



KEY PLAN
(N.T.S.)

LEGEND

ABBREVIATIONS

AAV	AIR ADMITTANCE VALVE
AB	ACCESSIBLE BASIN
AC	AIR CONDITIONING
A/P	ACCESS PANEL
ASM	AUTHORITY SEWER MAIN
AWM	AUTHORITY WATER MAIN
AV	AIR RELEASE VALVE
AWC	ACCESSIBLE TOILET (WATER CLOSET)
B	BASIN
B/CWU	BOILING/CHILLED WATER UNIT
BFW	BUNDED FLOOR WASTE
BG	BOX GUTTER
BO	BALCONY OUTLET
BT	BOUNDARY TRAP
BTFW	BUCKET TRAP FLOOR WASTE
BTH	BATH
BV	BALANCING VALVE
BWU	BOILING WATER UNIT
CAC	CIRCULAR ACCESS CHAMBER
CBO	COMBI OVEN
CC	CIRCULAR COVER
CD	CONDENSATE DRAIN
CI	CAST IRON
CIC	CAST IN COLUMN
CIS	CAST IN SLAB
CO	CLEAR OUT
CS	CLEANERS SINK
CSO	COMBI STEAMER OVEN
CT	COOK TOP
Cu	COPPER
CW	COLD WATER
DCDV	DOUBLE CHECK DETECTOR VALVE
DCP	DISCHARGE CONTROL PIT
DF	DRINKING FOUNTAIN
DFH	DUAL FIRE HYDRANT
DCW	DOMESTIC COLD WATER
DHWF	DOMESTIC HOT WATER FLOW
DI	DUCTILE IRON
DP	DOWN PIPE
DRO	DOMED RAINWATER OUTLET
DST	DRAINAGE STACK
DTU	DRAINAGE TURN-UP
DW	DISHWASHER
DWG	DRAWING
e	EXISTING
EJ	EXPANSION JOINT
Ex	EXISTING
FFL	FINISHED FLOOR LEVEL
FH	FIRE HYDRANT
FHR	FIRE HOSE REEL
FW	FLOOR WASTE
GAS	GAS SERVICE
GBP	GAS BAYONET POINT
GD	GRATED DRAIN
GDO	GRATED DRAIN OUTLET
GFW	GARBAGE FLOOR WASTE
GMS	GALVANISED MILD STEEL
GVP	GREASE WSTER VENT PIPE
GW	GREASE WASTE
GWM	GLASS WASHING MACHINE
GWS	GREASE WASTE STACK
HDC	HEAVY DUTY COVER
HDG	HEAVY DUTY GRATE
HDPE	HIGH DENSITY POLYETHYLENE
HL	HIGH LEVEL
HPF	HEAT PUMP FLOW
HPR	HEAT PUMP RETURN
HR	HALF ROUND
HT	HOSE TAP
HW	HOT WATER
HWF	HOT WATER FLOW
HWR	HOT WATER RETURN
HWU	HOT WATER UNIT
IL	INVERT LEVEL
IM	ICE MACHINE
IPMF	INDUCT PIPE MICA FLAP
KIP	KERB INLET PIT
KFW	KITCHEN FLOOR WASTE
KO	KEY OPERATED
KS	KITCHEN SINK
LDC	LIGHT DUTY COVER
LDG	LIGHT DUTY GRATE
LL	LOW LEVEL
LO	LOCKED OPEN
LT	LAUNDRY TUB
LPG	LIQUIFIED PETROLEUM GAS
LTG	LONGITUDINAL TRENCH GRATE
NG	NATURAL GAS
NPCW	NON-POTABLE COLD WATER
NPHW	NON-POTABLE HOT WATER
NTS	NOT TO SCALE
O/F	OVERFLOW
OLF	OVERLAND FLOW
ORG	OVERFLOW RELIEF GULLY
P	PENETRATION
PAA	PRACTICAL ACTIVITY AREA
PAT	PRACTICAL ACTIVITY TROUGH
PCW	POTABLE COLD WATER
PFS	PAN FLUSH SANITISER
PFW	PLANTROOM FLOOR WASTE
PHT	PLANTER HOSE TAP
PLRO	PLANTER RAINWATER OUTLET
PLV	PRESSURE LIMITING VALVE
PRO	PARAPET RAINWATER OUTLET
PRV	PRESSURE REDUCING VALVE
RC	REFRIGERATION CABINET
RCP	REINFORCED CONCRETE PIPE
RGB	RECESS GAS BAYONET POINT
RL	REDUCED LEVEL
RO	RAINWATER OUTLET
RPZD	REDUCED PRESSURE ZONE DEVICE
RS	RISING SHAFT
RST	RECESSED STOP TAP
RTD	RECESSED TUNDISH
RV	RELIEF VENT
RW	RAIN WATER
RWH	RAINWATER HEAD
S	SEWER/SANITARY
SD	SEWER DRAINAGE
SHR	SHOWER
SK	SINK
SL	SUCTION LINE
SMH	SEWER MANHOLE
SMS	SEWER MAINTENANCE SHAFT
SPR	SPRINKLER SERVICE
SRA	SPRAY RINSE ARM
SRM	SEWER RISING MAIN
SRO	SQUARE RAINWATER OUTLET
SRZ	STRUCTURAL ROOT ZONE
SSD	SUB-SOIL DRAINAGE
SST	SOIL STACK
ST	STOP TAP
SV	STOP VALVE (ISOLATION VALVE)
STW	STORWATER
SWDTU	STORMWATER DRAINAGE TURN-UP
SWP	STORMWATER PIT
SWRM	STORMWATER RISING MAIN
TD	TUNDISH
TG	TRENCH GRATE
TMV	THERMOSTATIC MIXING VALVE
TOK	TOP OF KERB
TPZ	TREE PROTECTION ZONE
TTD	TRAPPED TUNDISH
TRO	TERRACE RAINWATER OUTLET
TV	TEMPERING VALVE
TWCV	TRADE WASTE CHAMBER VENT
TWS	TRADE WASTE STACK
TWVP	TRADE WASTE VENT PIPE
U.N.O.	UNLESS NOTED OTHERWISE
uPVC	UNPLASTICISED POLYVINYL CHLORIDE
Ur	URINAL
UV	ULTRAVIOLET
UW	UTENSIL WASHING MACHINE
VB	VANITY BASIN
VFW	VINYL FLOOR WASTE
VP	VENT PIPE
WC	TOILET SUITE (WATER CLOSET)
WM	WASHING MACHINE (CLOTHES)
WP	WASTE PIPE
WST	WASTE STACK
WT	WASH TROUGH
WW	WARM WATER
WWF	WARM WATER FLOW
WWR	WARM WATER RETURN YG YARD GULLY

ABBREVIATIONS, SYMBOLS AND LINETYPES IN THE LEGEND MAY NOT APPEAR ELSEWHERE ON THE DRAWINGS. THIS LEGEND SHOULD BE USED AS A GUIDE ONLY

SYMBOLS

- COLD WATER POINT
- HOT WATER POINT
- CONTINUATION SYMBOL (CONTINUATION OF SERVICE NOT SHOWN)
- CAPPED OFF SERVICE
- DROPPER
- RISER
- DIRECTION OF FLOW IN PIPE
- FLANGE CONNECTION
- BALANCING VALVE (STAD)
- TUNDISH
- ISOLATION VALVE
- FLEXIBLE CONNECTION
- PUMP
- METER
- EMS METER
- TEMPERATURE GAUGE
- PRESSURE GAUGE
- THERMOSTATIC MIXING VALVE
- TEMPERING VALVE
- DOUBLE CHECK VALVE
- BACKFLOW PREVENTION DEVICE
- TWO WAY VALVE
- THREE WAY VALVE
- FLOAT VALVE
- AIR RELEASE VALVE
- CHECK VALVE (WATER SERVICE) REFLUX VALVE (DRAINAGE) (RV)
- REFLUX VALVE RISES TO SURFACE LEVEL
- FILTER
- VENTED GAS REGULATOR
- ELECTRICAL CONTROL PANEL
- OVERFLOW RELIEF GULLY/YARD GULLY
- SV IN PATH BOX
- GAS REGULATOR
- PRESSURE REDUCING VALVE
- PRESSURE LIMITING VALVE
- SOLENOID VALVE
- STRAINER
- DIRECTIONAL ARROW
- OVERLAND FLOW PATH
- PENETRATION
- DIRECTION OF FLOW
- SERVICE
- SIZE
- CONTINUED ON DWG HX

SYMBOLS

- FLOOR WASTE/RAINWATER OUTLET
- GARBAGE FLOOR WASTE
- STORMWATER PIT (WITH COVER)
- STORMWATER PIT (WITH GRATE)
- SQUARE RAINWATER OUTLET
- SEWER MANHOLE (CAC)
- KERB INLET PIT (SINGLE GRATE)
- KERB INLET PIT (DOUBLE GRATE)
- STORMWATER HEADWALL
- SPREADER
- BOUNDARY TRAP
- AIR ADMITTANCE VALVE
- FIRE HOSEREEL
- FIRE HYDRANT
- STANDPIPE FIRE HYDRANT (DFH)
- FIRE HYDRANT BOOSTER ASSEMBLY
- SHADED AREA INDICATES PIPEWORK CAST INTO SLAB

LINETYPES

- SEWER DRAINAGE/SANITARY PLUMBING
- VENT PIPE
- SRM — SEWER RISING MAIN
- STORMWATER DRAINAGE
- RAIN WATER PIPE (RW)
- SWRM — STORMWATER RISING MAIN
- O/F — STORMWATER OVERFLOW
- GW — GREASE WASTE DRAINAGE
- GWVP — GREASE WASTE VENT PIPE
- TW — TRADE WASTE DRAINAGE
- TWVP — TRADE WASTE VENT PIPE
- TWCV — TRADE WASTE CHAMBER VENT PIPE
- SUBSOIL DRAINAGE
- SSRM — SUBSOIL RISING MAIN
- COLD WATER SERVICE
- HOT WATER FLOW
- HOT WATER RETURN
- HPF — HEAT PUMP FLOW
- HPR — HEAT PUMP RETURN
- WARM WATER FLOW
- WARM WATER RETURN
- NPCW — NON-POTABLE COLD WATER
- NPHW — NON-POTABLE HOT WATER
- GAS SERVICE
- FIRE HOSE REEL SERVICE
- FIRE HYDRANT SERVICE
- FIRE SPRINKLER SERVICE
- IR — IRRIGATION SERVICE
- R — RECYCLED WATER
- RO — REVERSE OSMOSIS WATER
- EXHAUST
- E — ELECTRICAL CONDUIT
- e — EXISTING SERVICE
- EXISTING SERVICE TO BE REDUNDANT

NOTES

1. DRAWINGS ARE DIAGRAMMATIC ONLY. FOR DIMENSIONS AND CONSTRUCTION DETAILS OF BUILDING REFER ARCHITECTURAL DRAWINGS AND SITE.
2. PIPEWORK SIZES ARE NOMINAL BORE FOR COPPER AND CAST IRON AND INTERNAL BORE FOR POLYMER BASED PIPEWORK. REFER SPECIFICATION FOR MATERIAL TYPE.
3. DRAWINGS ARE TO BE READ IN CONJUNCTIONS WITH HYDRAULIC SERVICES SPECIFICATION, ARCHITECTURAL, STRUCTURAL AND OTHER CONSULTANTS DOCUMENTATION.
4. ANY PENETRATIONS TO FIRE RATED ELEMENTS TO BE PROTECTED IN ACCORDANCE WITH AS1530.4-2014 AND AS4072.1-2005.
5. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH FIRE ENGINEERING REPORT R1-22-053UE75.

No	DATE	DESCRIPTION
A	15.11.24	SCHEMATIC DESIGN TENDER ISSUE

- [X] APPROVED — This document is issued for the purpose of the latest revision
- [ ] UNCONTROLLED — Content in this document may differ from that contained in the latest revision

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PROJECT

MEDOWIE HIGH SCHOOL
6 ABUNDANCE ROAD, MEDOWIE NSW 2318

NSW GOVERNMENT Education

DRAWING TITLE

HYDRAULIC SERVICES
PROJECT INFORMATION

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PROJECT NUMBER	8334
DATE	OCTOBER 2024
No IN SET	
DRAWN	JL
DESIGNED	MS
CHECKED	RB
DRAWING NUMBER	MHS-DSC-ZZ-ZZ-DR-H-00001
REVISION	A

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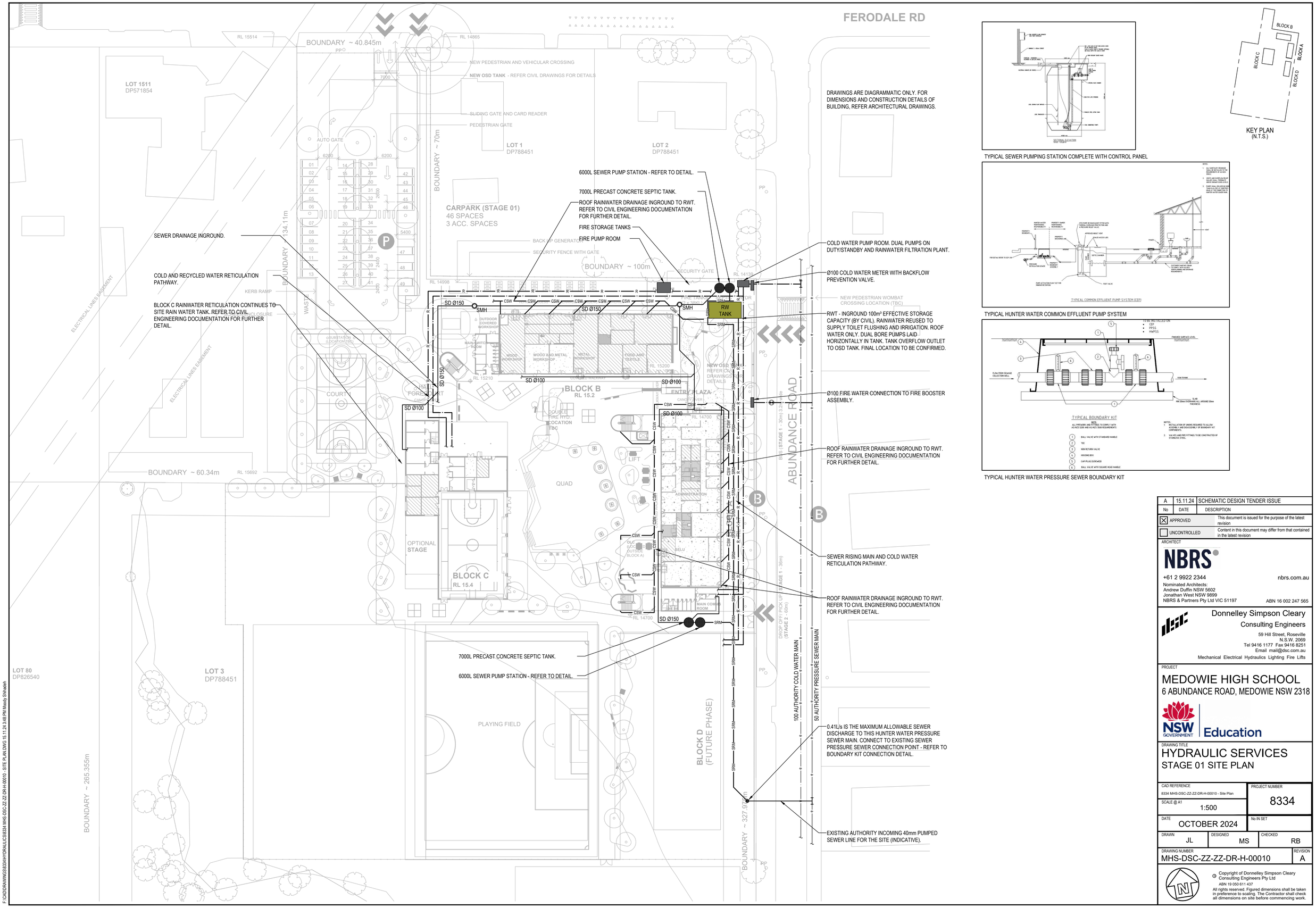

TYPICAL SEWER PUMPING STATION COMPLETE WITH CONTROL PANEL

KEY PLAN
(N.T.S.)

TYPICAL COMMON EFFLUENT PUMP SYSTEM (CEP)

TYPICAL HUNTER WATER COMMON EFFLUENT PUMP SYSTEM

TYPICAL BOUNDARY KIT

TYPICAL HUNTER WATER PRESSURE SEWER BOUNDARY KIT

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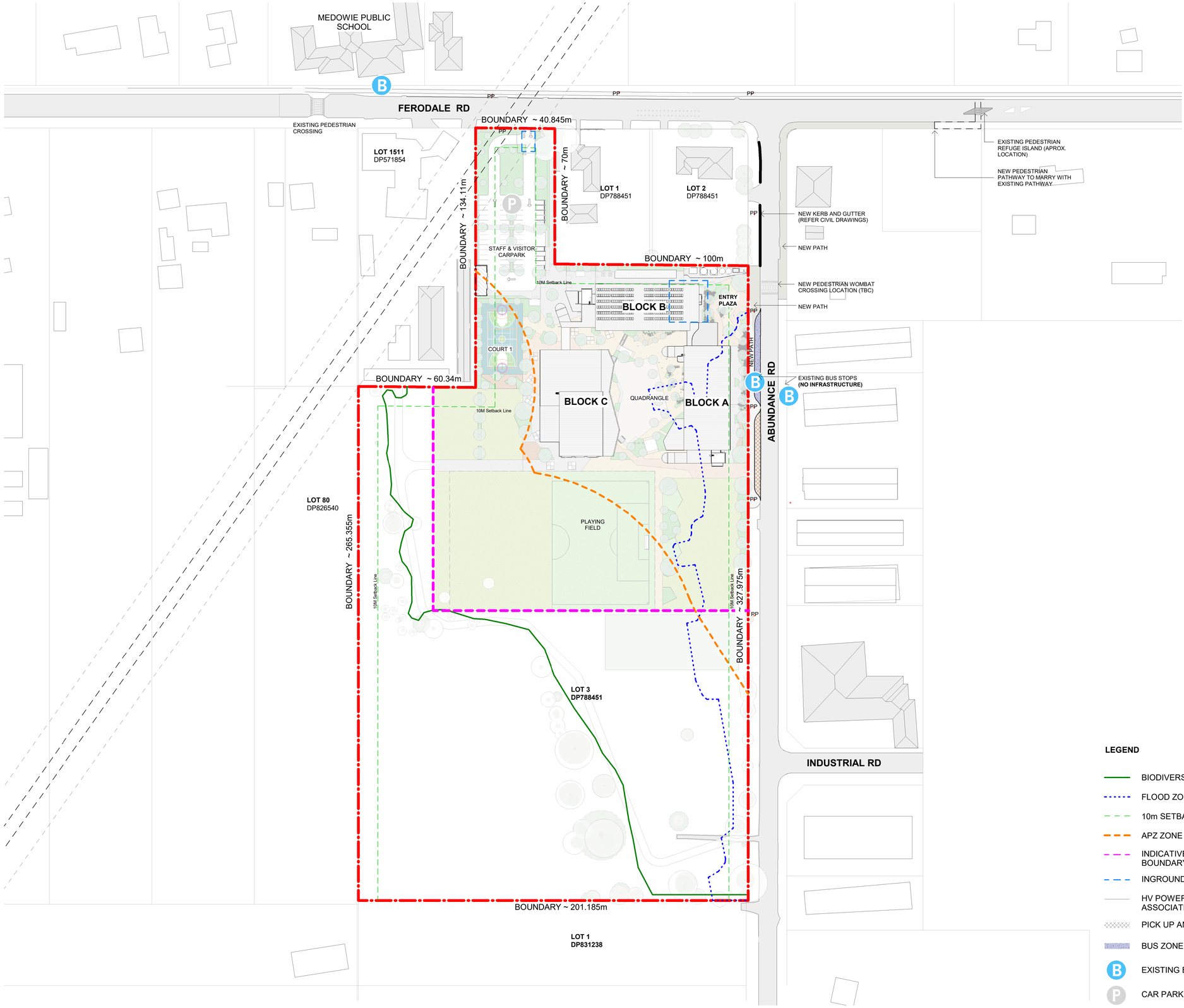
PROJECT
MEDOWIE HIGH SCHOOL
6 ABUNDANCE ROAD, MEDOWIE NSW 2318

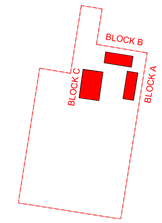
NSW GOVERNMENT Education

DRAWING TITLE
HYDRAULIC SERVICES
STAGE 01 SITE PLAN

CAD REFERENCE	8334 MHS-DSC-ZZ-ZZ-DR-H-00010 - Site Plan
PROJECT NUMBER	8334
SCALE @ A1	1:500
DATE	OCTOBER 2024
No IN SET	
DRAWN	JL
DESIGNED	MS
CHECKED	RB
DRAWING NUMBER	MHS-DSC-ZZ-ZZ-DR-H-00010
REVISION	A

12 APPENDIX B – ARCHITECTURAL SITE PLAN





KEY PLAN

LEGEND

- BIODIVERSITY VALUE MAP
- FLOOD ZONE BOUNDARY
- 10m SETBACK LINE
- APZ ZONE EXTENT
- INDICATIVE SCHOOL/ FENCING BOUNDARY
- INGROUND OSD TANK
- HV POWER LINES & ASSOCIATED EASEMENT
- PICK UP AND DROP OFF
- BUS ZONE
- EXISTING BUS BAY
- CAR PARK
- EXISTING POWER POLE

REF

Issue

No.	Date	Description	Chkd
1	2024/11/29	ISSUE FOR DRAFT REF	MK
2	2025/01/20	DRAFT REF (FINAL ISSUE)	MK

Changes to this Revision

NBRS
+61 2 9922 2344 nbrs.com.au
Nominated Architects:
Andrew Duffin NSW 5602
Jonathan West NSW 9899
NBRS & Partners Pty Ltd VIC 51197 ABN 16 002 247 565

Project
24135 - MEDOWIE HIGH SCHOOL

at
6 Abundance Rd, Medowie NSW 2318

NSW GOVERNMENT Education

Drawing Title
LOCATION PLAN

Date 20/01/2025 9:27:53 AM
Scale 1 : 1000 @ A1
NBRS Project # 24135
Drawing Reference MHS-NBRS-ZZ-ZZ-DR-A-000200
Revision 2

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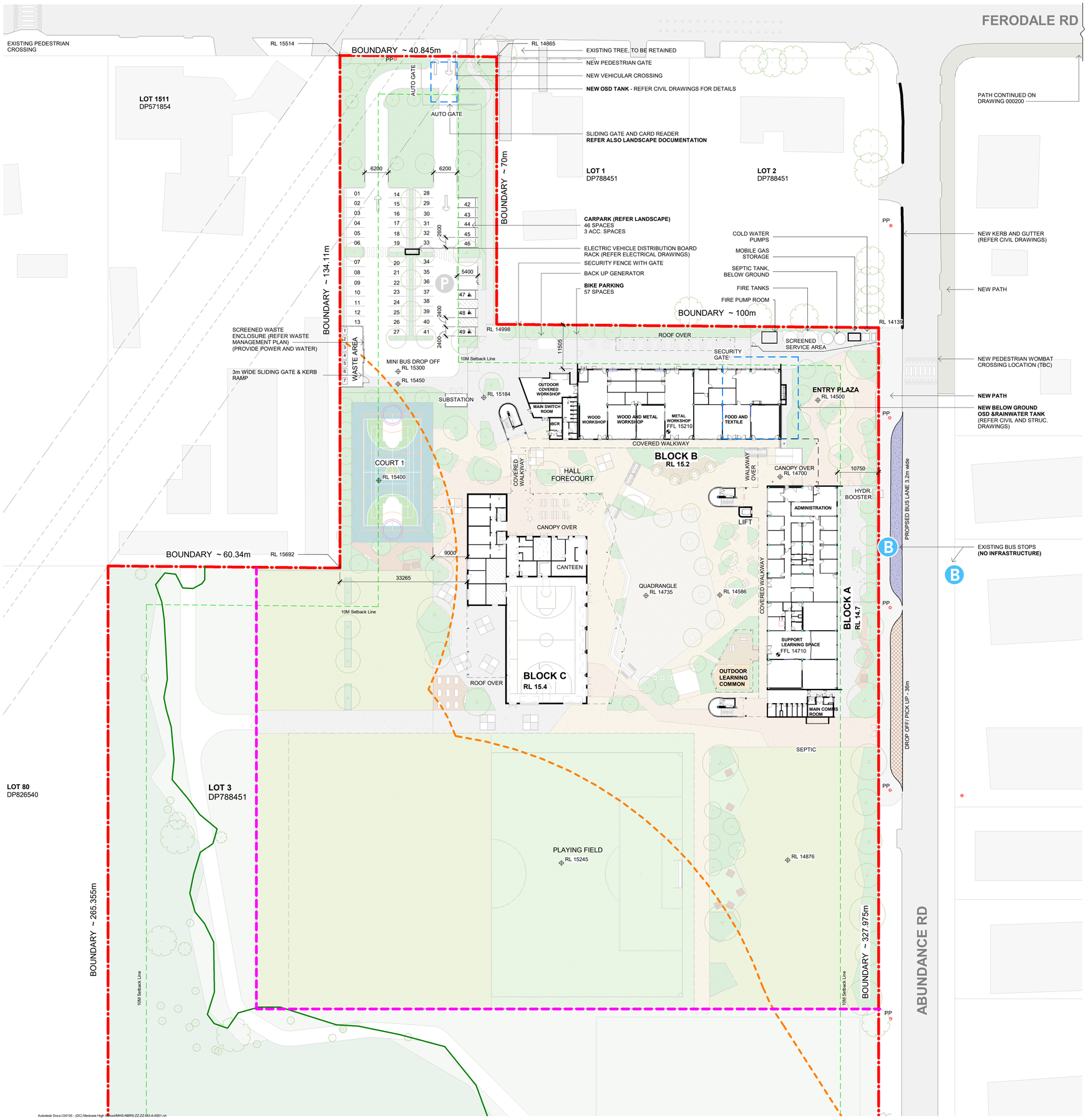

Autodesk Docs://24135 - (DC) Medowie High School/MHS-NBRS-ZZ-ZZ-M3-A-0001.rvt

NBRS

LEGEND

- BIODIVERSITY VALUE MAP
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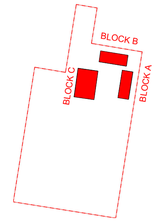
- P CAR PARK
- PP EXISTING POWER POLE



KEY PLAN

REF

Issue

No.	Date	Description	Chkd
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Changes to this Revision

SUMMARY OF AREAS

Function	Area	SLU Total	Special Teaching Space Total	Workshop /Labs Totals	Teaching Space Totals
	11 m²	0	0	0	0
HS 101 GENERAL LEARNING SPACES	1228 m²	0	0	0	14
HS 101.03 LEARNING COMMONS	345 m²	0	0	0	0
HS 102 GENERAL LEARNING SPACES (SUPPORT)	517 m²	3	0	0	0
HS 201 ADMINISTRATION HUB	369 m²	0	0	0	0
HS 202 STAFF HUB	413 m²	0	0	0	0
HS 203 GYMNASIUM + CANTEEN	977 m²	0	0	0	0
HS 204 LIBRARY HUB	528 m²	0	1	0	0
HS 301 SCIENCE LEARNING HUB	332 m²	0	2	1	0
HS 302 VISUAL ARTS LEARNING HUB	326 m²	0	2	1	0
HS 303 WOOD + METAL TECHNOLOGY LEARNING HUB	607 m²	0	2	2	0
HS 304 FOOD + TEXTILES LEARNING HUB	392 m²	0	2	1	0
HS 305 HEALTH/PE LEARNING HUB	315 m²	0	2	1	0
HS 306 PERFORMING ARTS LEARNING HUB	263 m²	0	2	1	0
HS 401 STUDENT AMENITIES	250 m²	0	0	0	0
HS 402 OTHER STORAGE	46 m²	0	0	0	0
HS 501 OUTDOOR AREAS	191 m²	0	0	0	0
HS CIRCULATION	1167 m²	0	0	0	0
HS SERVICES	468 m²	0	0	0	0
SERVICES	13 m²	0	0	0	0
VER	7 m²	0	0	0	0
Grand total: 218	8765 m²	3	13	7	14

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NSW GOVERNMENT Education

Drawing Title
SITE PLAN

Date 20/01/2025 9:43:11 AM
Scale 1:500 @ A1
NBRS Project # 24135
Drawing Reference MHS-NBRS-ZZ-ZZ-DR-A-000201
Revision 2

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