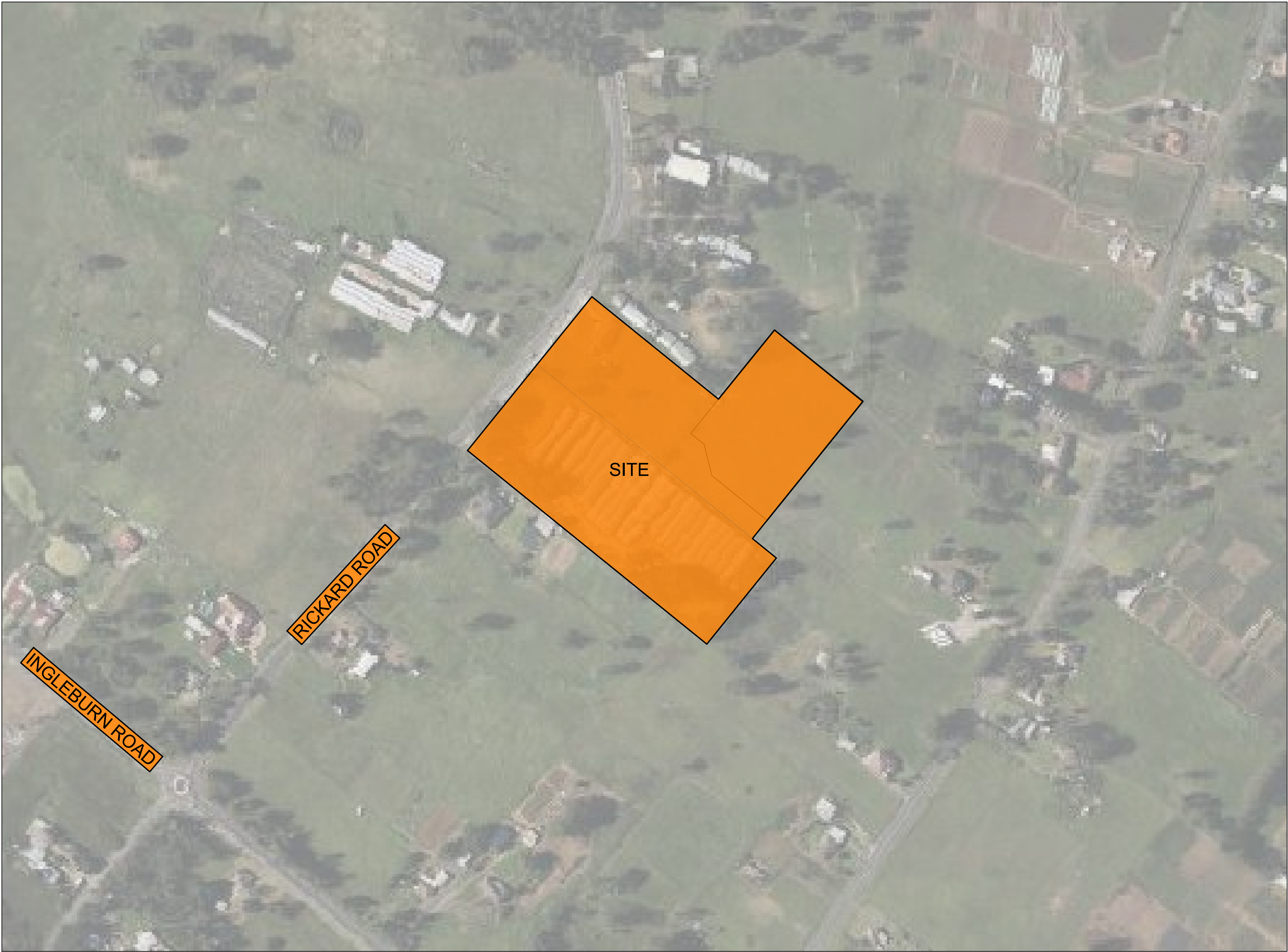


NEW HIGH SCHOOL FOR LEPPINGTON AND DENHAM COURT

LEPPINGTON, NSW 2179



NUMBER	DRAWING TITLE
GENERAL-00000	
LHS-TTW-01-00-DR-C-00001	GENERAL COVER SHEET
LHS-TTW-01-00-DR-C-00003	GENERAL NOTES AND LEGEND
LHS-TTW-01-00-DR-C-00401	GENERAL ARRANGEMENT PLAN SHEET 1
LHS-TTW-01-00-DR-C-00402	GENERAL ARRANGEMENT PLAN SHEET 2
LHS-TTW-01-00-DR-C-01501	ROAD TYPICAL SECTION
EROSION AND SEDIMENT CONTROL-02000	
LHS-TTW-01-00-DR-C-02001	EROSION AND SEDIMENT CONTROL NOTES AND LEGEND
LHS-TTW-01-00-DR-C-02101	EROSION AND SEDIMENT CONTROL PLAN
EARTHWORKS-03000	
LHS-TTW-01-00-DR-C-03101	EARTHWORKS CUT AND FILL VOLUMES PLAN
STORMWATER-04000	
LHS-TTW-01-00-DR-C-04001	STORMWATER NOTES AND LEGEND
LHS-TTW-01-00-DR-C-04101	STORMWATER AND SUBSOIL DRAINAGE PLAN SHEET 1
LHS-TTW-01-00-DR-C-04102	STORMWATER AND SUBSOIL DRAINAGE PLAN SHEET 2
LHS-TTW-01-00-DR-C-04501	STORMWATER DETAILS SHEET 1
LHS-TTW-01-00-DR-C-04502	STORMWATER DETAILS SHEET 2
RETAINING WALLS-06000	
LHS-TTW-01-00-DR-C-06501	RETAINING WALL DETAILS
PAVEMENT-07000	
LHS-TTW-01-00-DR-C-07001	PAVEMENT NOTES AND LEGEND
LHS-TTW-01-00-DR-C-07101	PAVEMENT PLAN SHEET 1
LHS-TTW-01-00-DR-C-07102	PAVEMENT PLAN SHEET 2
LHS-TTW-01-00-DR-C-07501	PAVEMENT DETAILS SHEET 1
SIGNAGE AND LINEMARKING-08000	
LHS-TTW-01-00-DR-C-08101	SIGNAGE AND LINEMARKING PLAN

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THIS DRAWING IS TO BE READ IN CONJUNCTION
WITH ALL RELEVANT NOTES AND LEGENDS

1. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORKS. ANY DISCREPANCIES TO BE REPORTED TO THE **SUPERINTENDENT**.
2. STRIP ALL TOPSOIL FROM THE CONSTRUCTION AREA. ALL STRIPPED TOPSOIL SHALL BE DISPOSED OF OFF-SITE UNLESS DIRECTED OTHERWISE.
3. MAKE SMOOTH CONNECTION WITH ALL EXISTING WORKS.
4. COMPACT SUBGRADE UNDER BUILDINGS AND PAVEMENTS TO MINIMUM 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.1.1. COMPACTION UNDER BUILDINGS TO EXTEND 2M MINIMUM BEYOND BUILDING FOOTPRINT.
5. ALL WORK ON PUBLIC PROPERTY, PROPERTY WHICH IS TO BECOME PUBLIC PROPERTY, OR ANY WORK WHICH IS TO COME UNDER THE CONTROL OF THE STATUTORY AUTHORITY; THE CONTRACTOR IS TO OBTAIN ALL NECESSARY PERMITS AND DRAWINGS USED FOR CONSTRUCTION HAVE BEEN APPROVED BY ALL RELEVANT AUTHORITIES PRIOR TO COMMENCEMENT SITE.
6. ALL WORK ON PUBLIC PROPERTY, PROPERTY WHICH IS TO BECOME PUBLIC PROPERTY, OR ANY WORK WHICH IS TO COME UNDER THE CONTROL OF THE STATUTORY AUTHORITY IS TO BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT AUTHORITY. THE CONTRACTOR SHALL OBTAIN THESE REQUIREMENTS FROM THE AUTHORITY, WHERE THE REQUIREMENTS OF THE AUTHORITY ARE DIFFERENT TO THE DRAWINGS AND SPECIFICATIONS, THE REQUIREMENTS OF THE AUTHORITY SHALL BE APPLICABLE.
7. FOR ALL TEMPORARY BATTERS REFER TO GEOTECHNICAL RECOMMENDATIONS.

1. THESE DRAWINGS HAVE BEEN BASED FROM, AND TO BE READ IN CONJUNCTION WITH THE FOLLOWING CONSULTANTS DRAWINGS. ANY CONFLICT TO THE DRAWINGS MUST BE NOTIFIED IMMEDIATELY TO THE ENGINEER.

BOUNDARIES AND EASEMENTS

1. THE PROPERTY BOUNDARY AND EASEMENT LOCATIONS SHOWN ON TAYLOR THOMSON WHITTING DRAWING'S HAVE BEEN BASED ON INFORMATION RECEIVED FROM : PROJECT SURVEYORS
2. TAYLOR THOMSON WHITTING MAKES NO GUARANTEES THAT THE BOUNDARY OR EASEMENT INFORMATION SHOWN IS CORRECT. TAX OR OTHER INFORMATION WHITTING WILL ACCEPT NO LIABILITIES FOR BOUNDARY INACCURACIES. THE CONTRACTOR/BUILDER IS ADVISED TO CHECK/CONFIRM ALL BOUNDARIES IN RELATION TO ALL PROPOSED WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. BOUNDARY INACCURACIES FOUND ARE TO BE REPORTED TO THE SUPERINTENDENT PRIOR TO CONSTRUCTION STARTING.

ORIGIN OF LEVELS: PM 44282 RL 95.924
 DATUM OF LEVELS: AHD
 COORDINATE SYSTEM: GDA2020
 SURVEY PREPARED BY: PHILLIP KIM

1. TAYLOR THOMSON WHITTING DOES NOT GUARANTEE THAT THE SURVEY INFORMATION SHOWN ON THESE DRAWINGS IS ACCURATE AND WILL ACCEPT NO LIABILITY FOR ANY INACCURACIES IN THE SURVEY INFORMATION PROVIDED TO US FROM ANY CAUSE WHATSOEVER.

1. THE LOCATIONS OF UNDERGROUND SERVICES SHOWN ON TAYLOR THOMSON WHITTINGS DRAWINGS HAVE BEEN PLOTTED FROM DIAGRAMS PROVIDED BY SERVICE AUTHORITIES. THIS INFORMATION HAS BEEN PREPARED SOLELY FOR THE AUTHORITIES OWN USE AND MAY NOT NECESSARILY BE UPDATED OR ACCURATE.
2. THE POSITION OF SERVICES AS RECORDED BY THE AUTHORITY AT THE TIME OF INSTALLATION MAY NOT REFLECT CHANGES IN THE PHYSICAL ENVIRONMENT SUBSEQUENT TO INSTALLATION.
3. THE CONTRACTOR MUST CONFIRM THE EXACT LOCATION AND EXTENT OF SERVICES PRIOR TO CONSTRUCTION AND REPORT ANY CONFLICT WITH THE DRAWINGS IMMEDIATELY TO THE ENGINEER/SUPERINTENDENT.
4. THE CONTRACTOR IS TO GET APPROVAL FROM THE RELEVANT STATE SURVEY DEPARTMENT, TO REMOVE/ADJUST ANY SURVEY MARK. THIS INCLUDES BUT IS NOT LIMITED TO: STATE SURVEY MARKS (SSM), PERMANENT MARKS (PM), CADASTRAL REFERENCE MARKS OR ANY OTHER SURVEY MARK WHICH IS TO BE REMOVED OR ADJUSTED IN ANY WAY.
5. TAYLOR THOMSON WHITTINGS PLANS DO NOT INDICATE THE PRESENCE OF ANY SURVEY MARK. THE CONTRACTOR IS TO UNDERTAKE THEIR OWN SEARCH.

1. PUBLIC SERVICE UTILITY INFORMATION SHOWN ON PLAN HAS BEEN COMPLIED FROM INFORMATION RECEIVED FROM DIAL BEFORE YOU DIG INQUIRY, REFERENCE NUMBER 36829765 OBTAINED ON 04.06.2024 UNLESS SPECIFICALLY SHOWN OTHERWISE, THIS LOCATION AND DEPTH OF SERVICES SHOWN ON THIS PLAN HAVE NOT BEEN VERIFIED.
2. THE LOCATION OF SERVICES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED AS ACCURATELY AS POSSIBLE FROM DIAGRAMS PROVIDED BY SERVICE AUTHORITIES AND SHOULD BE CONFIRMED BY SITE INSPECTION."

1. ALL BASECOURSE MATERIAL TO COMPLY WITH RMS SPECIFICATION NO 3051 AND COMPACTED TO MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1.
2. ALL TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT MATERIAL.
3. ALL SERVICE TRENCHES UNDER VEHICULAR PAVEMENTS SHALL BE BACKFILLED WITH AN APPROVED SELECT MATERIAL AND COMPACTED TO A MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1

1. PUBLIC DOMAIN WORKS ARE NOT TO COMMENCE UNTIL THESE DRAWINGS ARE STAMPED AS APPROVED. SINSW TO CONFIRM IF THESE DRAWINGS WILL BE STAMPED AS APPROVED.

1. THE LEVEL OF DETAIL / DESIGN REFLECTED IN THESE DOCUMENTS IS BASED ON THE UNDERSTANDING THIS WILL BE BUILT AS PART OF A DESIGN & CONSTRUCT CONTRACT.
2. THE CONTRACTOR SHALL RETAIN THE RESPONSIBILITY TO UNDERTAKE DETAILED DESIGN, COMPLY WITH RELEVANT STANDARDS, CONSENT CONDITIONS & THE SPECIFICATION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THE FINAL DESIGN IS CO-ORDINATED FULLY WITH OTHER CONSULTANTS.
4. NO VARIATION WILL BE ACCEPTED FOR DESIGN AMENDMENTS REQUIRED TO MEET THE FUNCTIONAL OBJECTIVE OF THIS DOCUMENTATION.

CONTRACTOR TO REFER TO APPENDIX B OF THE CIVIL SPECIFICATION FOR THE CIVIL RISK AND SOLUTIONS REGISTER.

- EXISTING SERVICES
CONTRACTOR TO BE AWARE EXISTING SERVICES ARE LOCATED WITHIN THE SITE. LOCATION OF ALL SERVICES TO BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING WORKS.
CONTRACTOR TO CONFIRM WITH RELEVANT AUTHORITY REGARDING MEASURES TO BE TAKEN TO ENSURE SERVICES ARE PROTECTED OR PROCEDURES ARE IN PLACE TO DEMOLISH AND/OR RELOCATE.
2. EXISTING STRUCTURES
CONTRACTOR TO BE AWARE EXISTING STRUCTURES MAY EXIST WITHIN THE SITE. TO PREVENT DAMAGE TO EXISTING STRUCTURE(S) AND/OR PERSONNEL, SITE WORKS TO BE CARRIED OUT AS FAR AS PRACTICALLY POSSIBLE FROM EXISTING STRUCTURE(S).
3. EXISTING TREES
CONTRACTOR TO BE AWARE EXISTING TREES EXIST WITHIN THE SITE WHICH NEED TO BE PROTECTED. TO PREVENT DAMAGE TO TREES AND/OR PERSONNEL, SITE WORKS TO BE CARRIED OUT AS FAR AS PRACTICALLY POSSIBLE FROM EXISTING TREES. ADVICE NEEDS TO BE SOUGHT FROM ARBORIST AND/OR LANDSCAPE ARCHITECT ON MEASURES REQUIRED TO PROTECT TREES.
4. GROUNDWATER
CONTRACTOR TO BE AWARE GROUND WATER LEVELS ARE CLOSE TO EXISTING SURFACE LEVEL. TEMPORARY DE-WATERING MAY BE REQUIRED DURING CONSTRUCTION WORKS.
5. EXCAVATIONS
DEEP EXCAVATIONS DUE TO STORMWATER DRAINAGE WORKS IS REQUIRED. CONTRACTOR TO ENSURE SAFE WORKING PROCEDURES ARE IN PLACE FOR WORKS. ALL EXCAVATIONS TO BE FENCED OFF AND BATTERS ADEQUATELY SUPPORTED TO APPROVAL OF GEOTECHNICAL ENGINEER.
6. GROUND CONDITIONS
CONTRACTOR TO BE AWARE OF THE SITE GEOTECHNICAL CONDITIONS. REFER TO GEOTECHNICAL REPORT BY
 - GEOTECHNICAL INVESTIGATION FOR PROPOSED LEPPINGTON HIGH SCHOOL PREPARED BY JK GEOTECHNICS DATED 3RD SEPTEMBER 2024 (REF.35910LTrp1)
7. HAZARDOUS MATERIALS
EXISTING ASBESTOS PRODUCTS & CONTAMINATED MATERIAL MAY BE PRESENT ON SITE. CONTRACTOR TO ENSURE ALL HAZARDOUS MATERIALS ARE IDENTIFIED PRIOR TO COMMENCING WORKS. SAFE WORKING PRACTICES AS PER RELEVANT AUTHORITY TO BE ADOPTED AND APPROPRIATE PPE TO BE USED WHEN HANDLING ALL HAZARDOUS MATERIALS. REFER TO GEOTECHNICAL/ENVIRONMENTAL REPORT BY
 - PROPOSED LEPPINGTON HIGH SCHOOL - HAZEDOUS BUILDING MATERIALS SURVEY PREPARED BY JBS&G DATED 15TH AUGUST 2024 (REF. JBS&G 67303)
 - DETAILED SITE INVESTIGATION LEPPINGTON HIGH SCHOOL - ADJACENT SITES PREPARED BY SMEC DATED 18TH MARCH 2024 (REF. 30018043)
8. CONFINED SPACES
CONTRACTOR TO BE AWARE OF POTENTIAL HAZARDS DUE TO WORKING IN CONFINED SPACES SUCH AS STORMWATER PITS, TRENCHES AND/OR TANKS. CONTRACTOR TO PROVIDE SAFE WORKING METHODS AND USE APPROPRIATE PPE WHEN ENTERING CONFINED SPACES.
9. MANUAL HANDLING
CONTRACTOR TO BE AWARE MANUAL HANDLING MAY BE REQUIRED DURING CONSTRUCTION. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ENSURE MANUAL HANDLING PROCEDURES AND ASSESSMENTS ARE IN PLACE PRIOR TO COMMENCING WORKS.
10. WATER POLLUTION
CONTRACTOR TO ENSURE APPROPRIATE MEASURES ARE TAKEN TO PREVENT POLLUTANTS FROM CONSTRUCTION WORKS CONTAMINATING THE SURROUNDING ENVIRONMENT.
11. SITE ACCESS/EGRESS
CONTRACTOR TO BE AWARE SITE WORKS OCCUR IN CLOSE PROXIMITY TO FOOTPATHS AND ROADWAYS. CONTRACTOR TO ERECT APPROPRIATE BARRIERS AND SIGNAGE TO PROTECT SITE PERSONNEL AND PUBLIC.
12. VEHICLE MOVEMENT
CONTRACTOR TO SUPPLY AND COMPLY WITH TRAFFIC MANAGEMENT PLAN AND PROVIDE ADEQUATE SITE TRAFFIC CONTROL INCLUDING A CERTIFIED TRAFFIC MARSHALL TO SUPERVISE VEHICLE MOVEMENTS WHERE NECESSARY.

THE FOLLOWING MUST BE PROVIDED BY THE CONTRACTOR A MINIMUM 2 WEEKS PRIOR TO THE REQUESTED DATE OF A CIVIL INSPECTION CERTIFICATE FOR OCCUPATION CERTIFICATE. SUBMISSIONS MUST BE PROVIDED PROGRESSIVELY AS WORKS ARE COMPLETED IN ACCORDANCE WITH THE CIVIL SPECIFICATION. THE PROGRAM MUST ALLOW ADEQUATE TIME FOR DEFECTS TO BE RECTIFIED SHOULD THIS BE REQUIRED.

1. NOTIFICATION THAT ALL CIVIL WORKS TO BE CERTIFIED HAVE BEEN COMPLETED TO ALLOW A FINAL INSPECTION TO BE UNDERTAKEN.
2. WRITTEN CONFIRMATION FROM THE CONTRACTOR THAT ALL CIVIL SITE INSPECTION REPORTS HAVE BEEN CLOSED OUT.
3. CCTV (INCLUDING WINCAN LOG OR EQUIVALENT) OF ALL CIVIL STORMWATER WORKS TO BE CERTIFIED.
4. WAE FROM A REGISTERED SURVEYOR (PDF & DWG) FOR ALL CIVIL STORMWATER TO BE CERTIFIED.
5. WAE FROM A REGISTERED SURVEYOR (PDF, DWG & 3D TIN) FOR ALL EXTERNAL CIVIL LEVELS TO BE CERTIFIED.
6. HEAD CONTRACTORS STATEMENT OF CONSTRUCTION COMPLIANCE.
7. HYDRAULIC CONTRACTORS INSTALLATION CERTIFICATE.
8. 3RD PARTY INSTALLATION CERTIFICATES FOR PROPRIETARY PRODUCTS AND/OR D&C ELEMENTS
9. COMPACTION TEST RESULTS IN ACCORDANCE WITH THE CIVIL SPECIFICATION.
10. MATERIALS CERTIFICATES PRIOR TO INSTALLATION IN ACCORDANCE WITH THE CIVIL SPECIFICATION.
11. WRITTEN CONFIRMATION FROM TFNSW AND/OR COUNCIL CONFIRMING COMPLETION AND ACCEPTANCE OF S138 WORKS IF APPLICABLE.

The diagram illustrates the removal of a block boundary. It is divided into three sections: **EXISTING**, **REMOVED**, and **PROPOSED**. In the **EXISTING** section, a dashed line represents a block boundary. In the **REMOVED** section, the same dashed line is shown, but with red 'X' marks indicating the removal of the boundary. In the **PROPOSED** section, a solid line represents the new block boundary.

The diagram illustrates the removal of an existing building envelope and the proposed new building envelope. It is divided into three sections: EXISTING, REMOVED, and PROPOSED.

- EXISTING:** A solid gray rectangle representing the current building envelope.
- REMOVED:** A dashed red rectangle representing the building envelope to be removed.
- PROPOSED:** A solid light blue rectangle representing the new building envelope to be constructed.

Labels on the right side of the diagram identify the rectangles: "BUILDING ENVELOPE" for the existing and proposed envelopes, and "FUTURE BUILDING ENVELOPE" for the removed envelope.


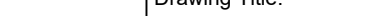
SOFT LANDSCAPE

The legend consists of seven horizontal entries, each with a colored line segment followed by its label:

- cSW Ø150 — STORMWATER
- cLV — cLV ELECTRICAL
- cG Ø50 — cG Ø50 GAS
- cCOMM — cCOMM TELECOMMUNICATIONS
- cS Ø150 — cS Ø150 SEWER
- cW Ø150 — cW Ø150 WATER
- X-X-X-X-X-S-W-X-X-X-X- SERVICE TO BE DEMOLISHED

A	-	SIGHTED, MUST BE LOCATED, THEN POTHOLED. UTILITY MUST BE PHYSICALLY SIGHTED AND MEASURED.
B	-	ELECTRONICALLY DETECTED AND LOCATED ON SITE USING VARIOUS TRACING METHODS.
C	-	ALIGNED FROM SURFACE FEATURES AND DIGITISED DATA.
D	-	DIGITISED DATA (DIAL BEFORE YOU DIG).

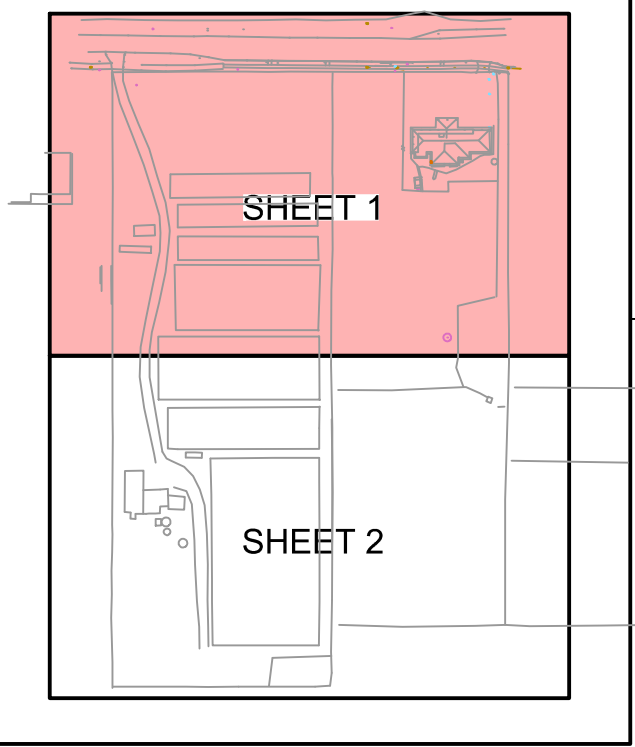
1. BELOW GROUND SERVICES CAN BE REPRESENTED AS GREY FOR EXISTING AND BLACK FOR PROPOSED DEPENDING ON THE PLAN.
2. EXISTING SERVICES PITS, STRUCTURES AND COLUMNS ARE ILLUSTRATED AS PER THE ORIGINAL SURVEY.

						Client:			Engineer:			Project:			Drawing Title:			Scale at A1			Drawn			Designed			Approved		
						 School Infrastructure NSW			 www.ttwengineers.com			NEW HIGH SCHOOL FOR LEPPINGTON AND DENHAM COURT LEPPINGTON, NSW 2179			GENERAL NOTES AND LEGEND			RT AW CR Type Role Sheet No. Rev LHS-TTW-01-00-DR-C-00003-3 14.01.2025 4:30 PM											
3 REF SUBMISSION SF RT 14.01.2025																													
2 SCHEMATIC DESIGN FOR REF SF RT 13.12.2024																													
1 FINAL DRAFT ISSUE FOR REF SF RT 21.11.2024																													
Rev Description			Eng Draft Date			Rev Description			Eng Draft Date			Rev Description			Eng Draft Date														

NOT FOR CONSTRUCTION

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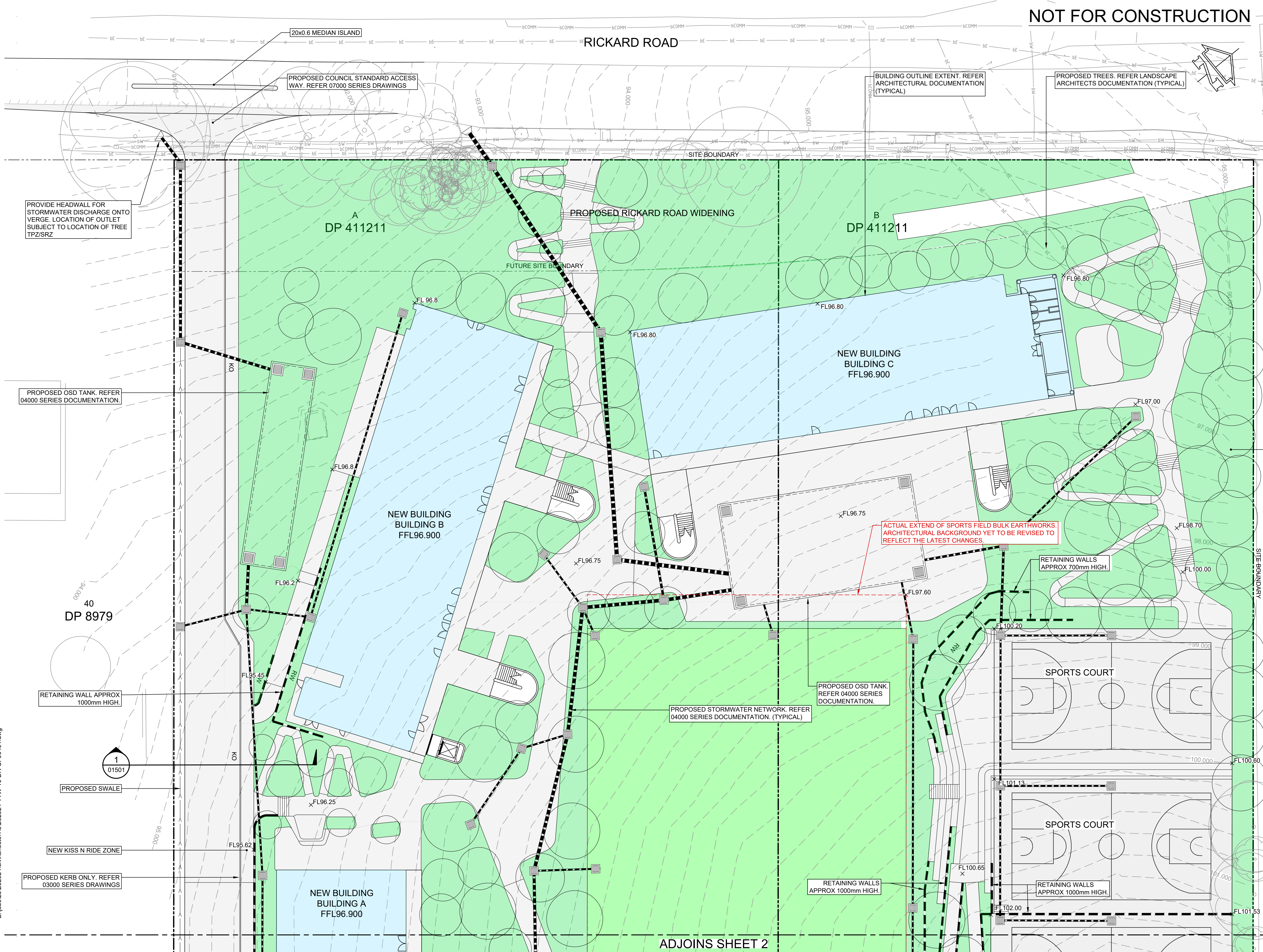


KEY PLAN

CAR PARK ARRANGEMENT AND GRADES IS SHOWN INDICATIVELY BASED ON ARCHITECTURAL SITE PLANS, TO BE DEVELOPED IN DETAIL DESIGN.

PROPOSED SOFT LANDSCAPE ZONE (TYPICAL)

39B
DP 8979



Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date
3	REF SUBMISSION	SF	RT	14.01.2025										
2	SCHEMATIC DESIGN FOR REF	SF	RT	13.12.2024										
1	FINAL DRAFT ISSUE FOR REF	SF	RT	21.11.2024										

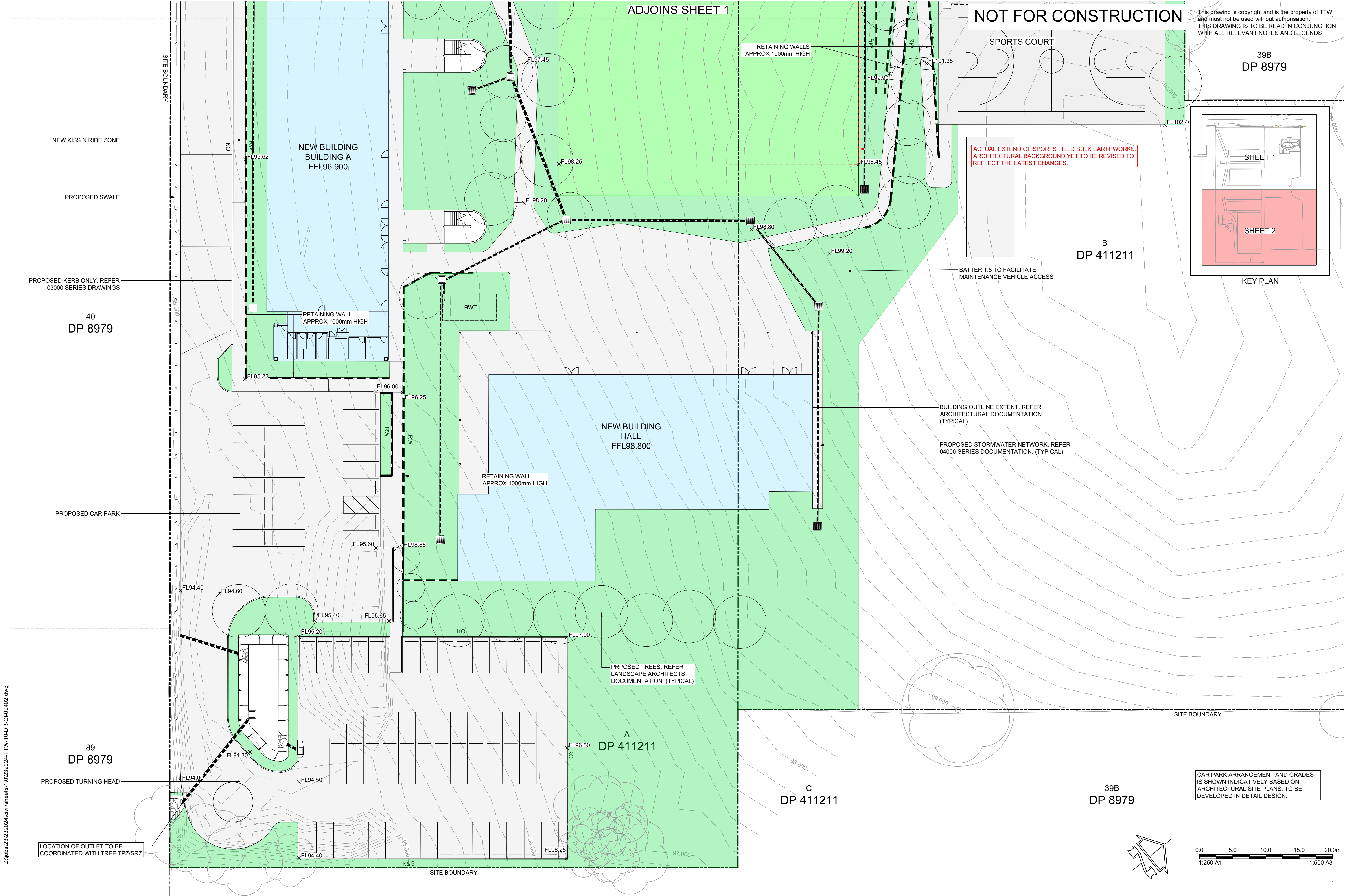
Client:
 School Infrastructure NSW

Engineer:
 www.ttwhome.com

Project:
NEW HIGH SCHOOL
FOR LEPPINGTON AND
DENHAM COURT
LEPPINGTON, NSW 2179

Drawing Title:
GENERAL
ARRANGEMENT PLAN
SHEET 1

Scale at A1
250
Project No
15.01.2025 1:55 PM
Drawn
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Designed
AW
Approved
CR
Type
Role
Sheet No.
Rev



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Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date
3	REF SUBMISSION	SF	RT	14.01.2025										
2	SCHEMATIC DESIGN FOR REF	SF	RT	13.12.2024										
1	FINAL DRAFT ISSUE FOR REF	SF	RT	21.11.2024										

Client:

 **School Infrastructure NSW**

Engineer:

 **TTW**
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Project:

**NEW HIGH SCHOOL
FOR LEPPINGTON AND
DENHAM COURT
LEPPINGTON, NSW 2179**

Drawing Title:

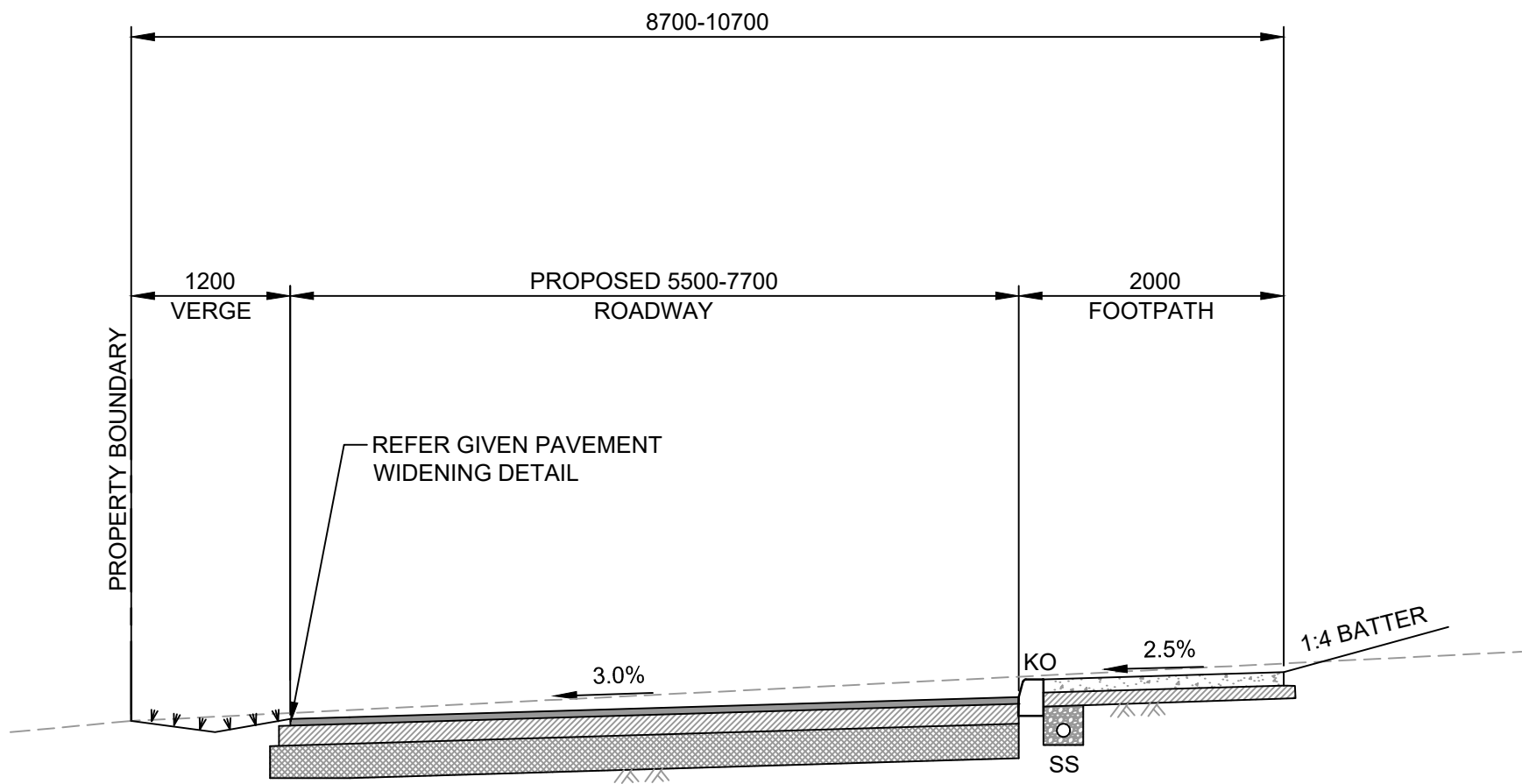
**GENERAL
ARRANGEMENT PLAN
SHEET 2**

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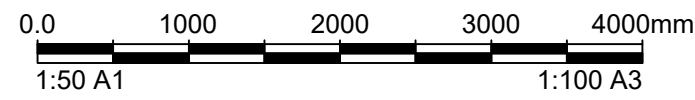
Drawn: RT, Designed: AW, Approved: CR



Project No: LHS-TTW-01-00-DR-C-00402-3

15.01.2025 11:07 AM



SECTION 1 DRIVEWAY TYPICAL SECTION
SCALE 1:50

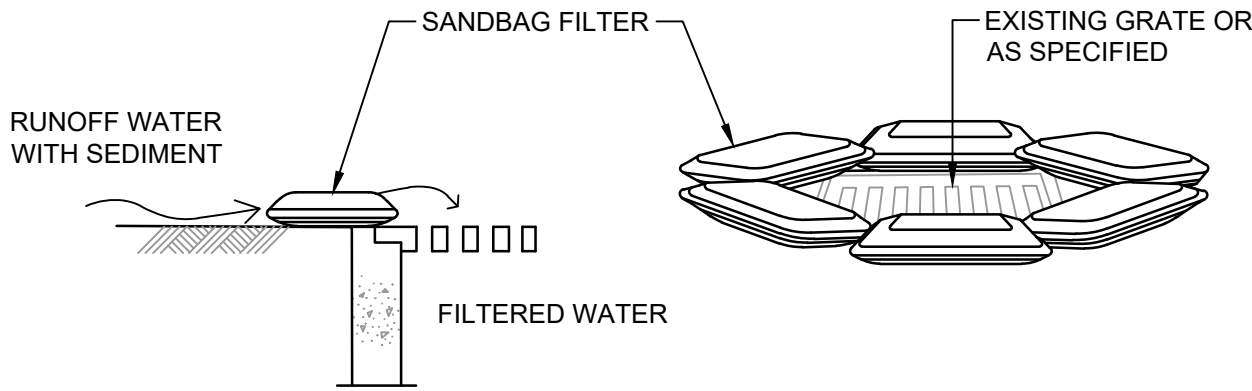


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				 School Infrastructure NSW		 www.ttwengineers.com		NEW HIGH SCHOOL FOR LEPPINGTON AND DENHAM COURT LEPPINGTON, NSW 2179		ROAD TYPICAL SECTION		50	RT	AW	CR
												Project No	Originator	Type	Role Sheet No. Rev
												LHS-TTW-01-00-DR-C-01501-3			
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Rev	Description	Eng Draft	Date	Rev	Description	Eng Draft	Date	Rev	Description	Eng Draft	Date				
3	REF SUBMISSION	SF	RT 14.01.2025												
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1	FINAL DRAFT ISSUE FOR REF	SF	RT 21.11.2024												

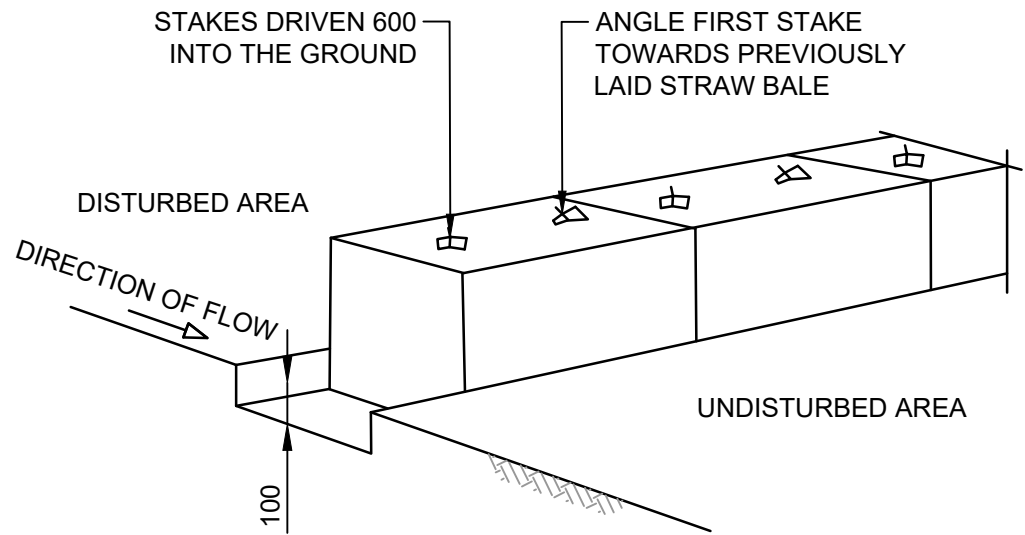
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EROSION AND SEDIMENT CONTROL PUMP OUT NOTES

ANY ACCUMULATED WATER CONTAMINATED WITH SEDIMENT, FROM A SEDIMENT BASIN OR EXCAVATION PIT, IS TO BE FLOCCULATED OR FILTERED IN ORDER TO LOWER THE SUSPENDED SOLID LOAD TO LESS THAN 50MG PER LITRE GYPSUM GAS OR OTHER APPROVED FLOCCULANT SHOULD BE APPLIED WITHIN 24 HOURS OF THE END OF THE STORM EVENT. THE GYPSUM MUST BE SPREAD EVENLY OVER THE ENTIRE WATER SURFACE. PUMPING IS NOT TO OCCUR FOR AT LEAST 36 HOURS AND PREFERABLY 48 HOURS AFTER APPLICATION. CLEAN WATER IS TO BE DISCHARGED TO THE WATER TABLE VIA A HALE BAIL SEDIMENT FILTER IN A WAY THAT DOES NOT PICK UP SEDIMENT THAT HAS DROPPED TO THE BOTTOM. NOTE: GYPSUM IS A HYDRATED FORM OF CALCIUM SULPHATE AND IS AVAILABLE AT MANY SWIMMING POOL SHOPS AND HARDWARE STORES.

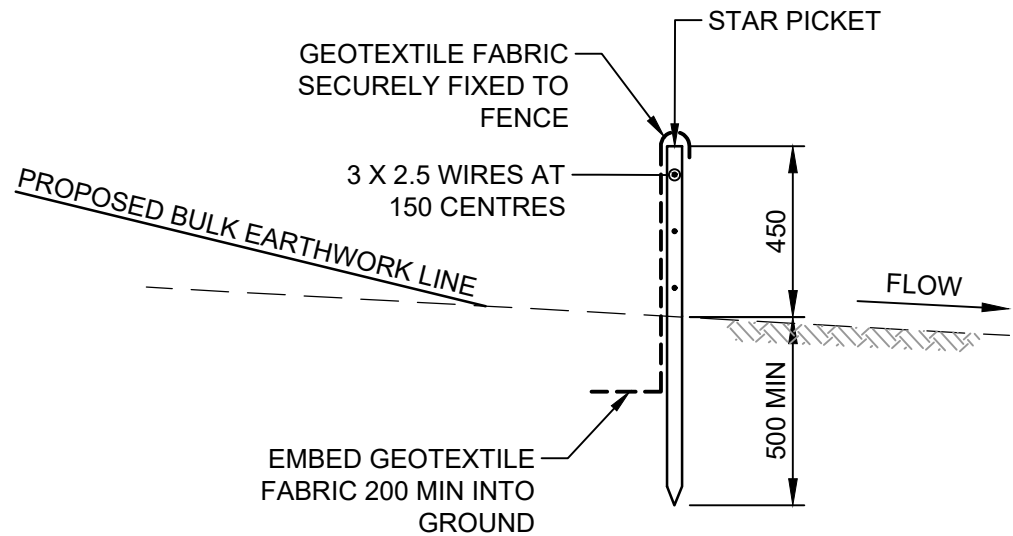


SANDBAG KERB SEDIMENT TRAP
NTS



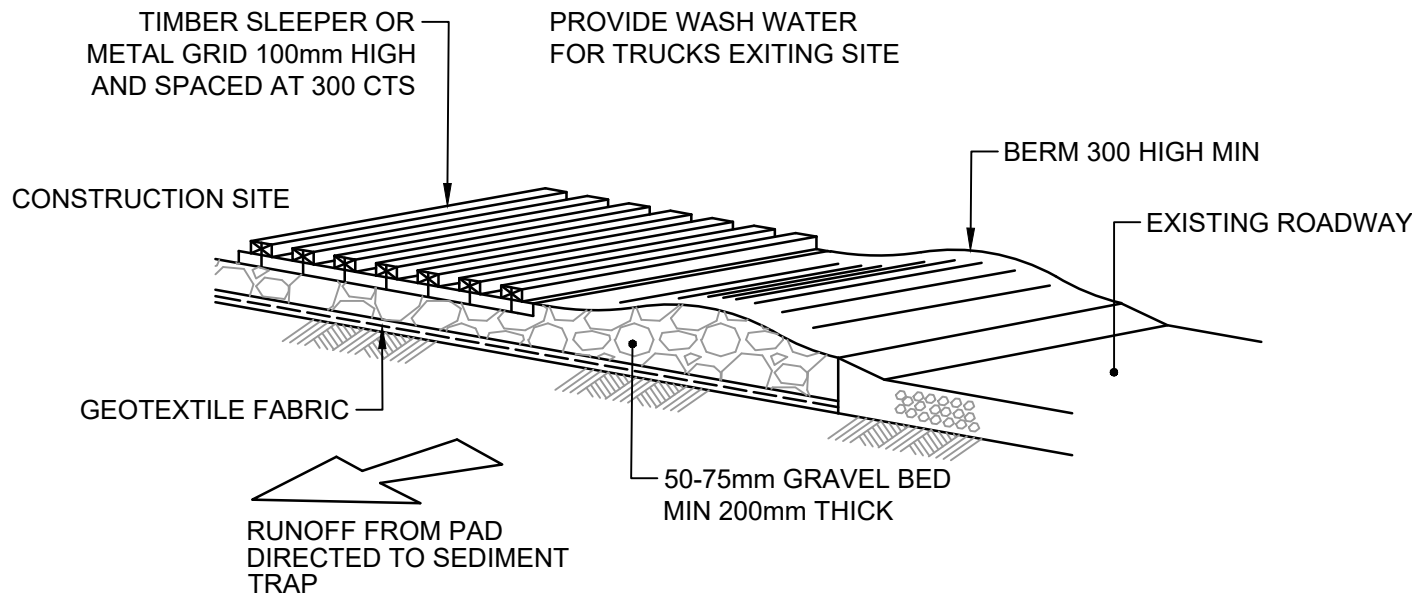
HAY BALE SEDIMENT FILTER
NTS

NOTE: STAKE TO BE EITHER TAR COATED STAR OR 50 x 50 HARDWOOD

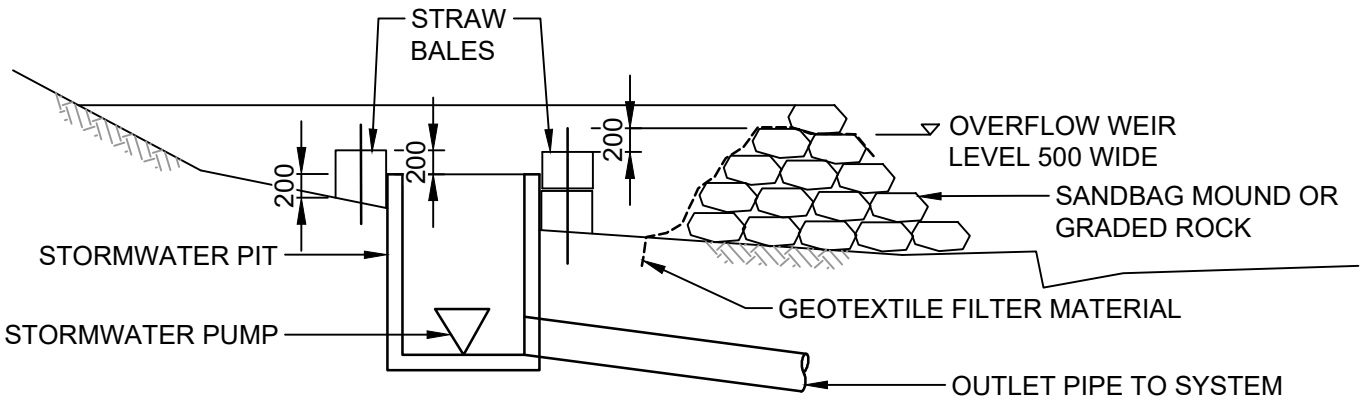


NOTE
ENDS OF SILTATION FENCE TO RETURNED UP SLOPE TO PREVENT RUNOFF

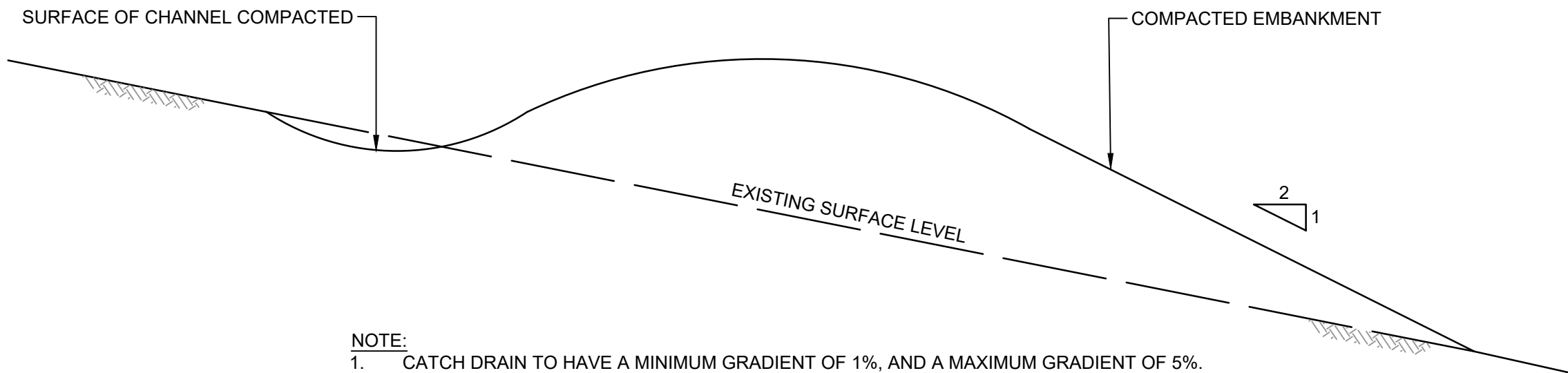
SILTATION FENCE DETAIL
SCALE 1:20



TEMPORARY CONSTRUCTION VEHICLE EXIT
NTS

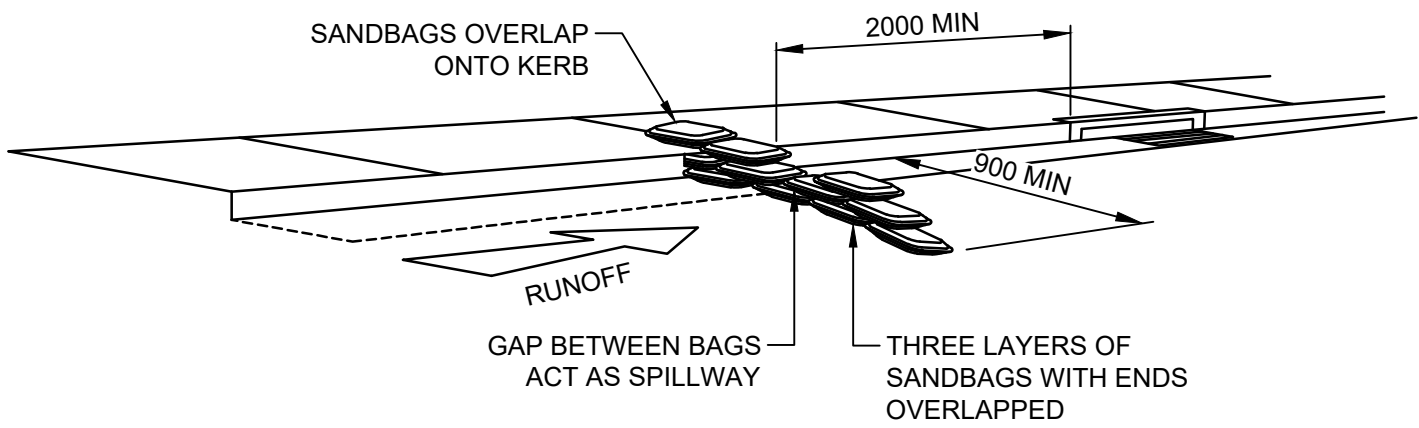


SEDIMENTATION TRAP
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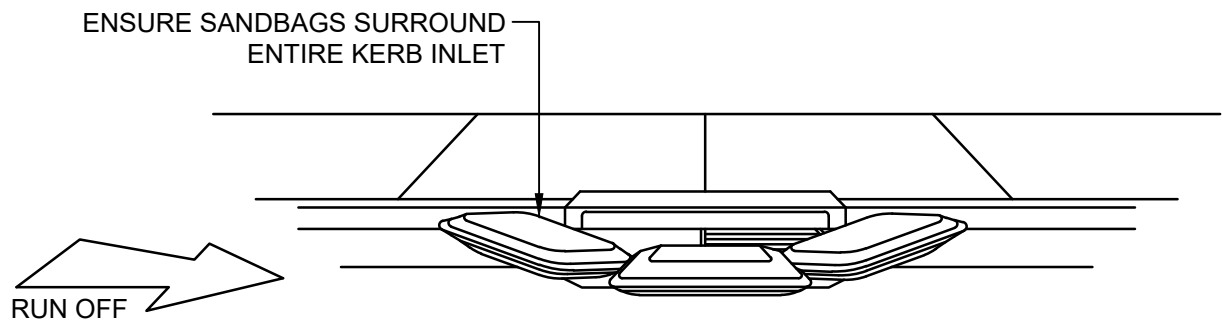


NOTE:
1. CATCH DRAIN TO HAVE A MINIMUM GRADIENT OF 1%, AND A MAXIMUM GRADIENT OF 5%.
2. RUNOFF FROM CATCH DRAIN TO BE DIRECTED TO SUITABLE SEDIMENT FILTER OR SEDIMENT TRAP.

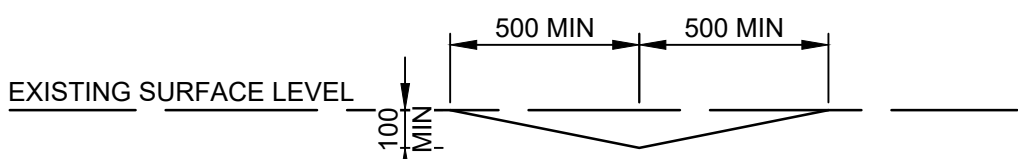
TYPICAL SECTION THROUGH CATCH DRAIN
SCALE 1:20



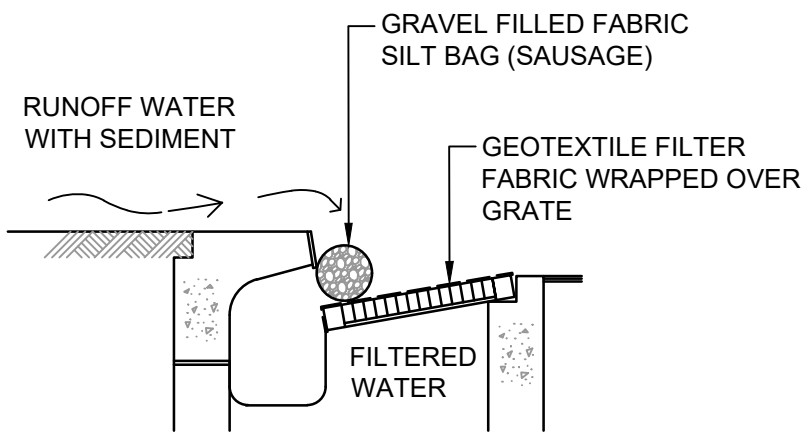
SANDBAG KERB SEDIMENT TRAP
NTS



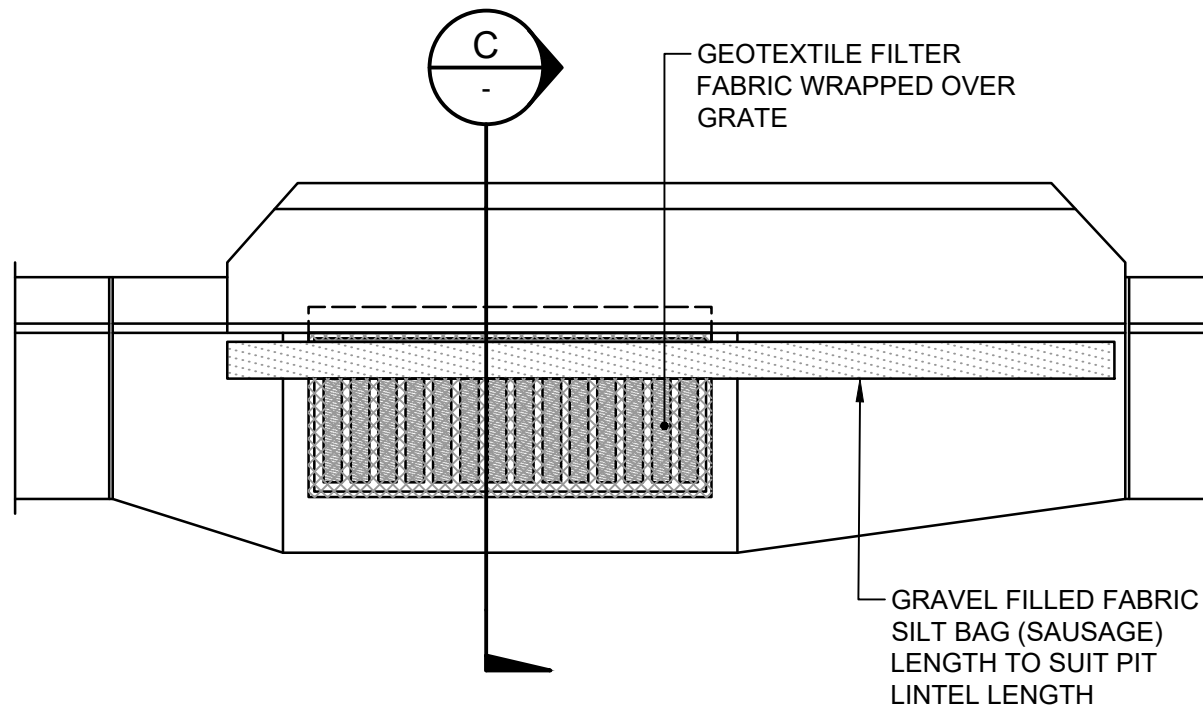
SANDBAG KERB INLET SEDIMENT TRAP
NTS



TYPICAL SECTION
THROUGH CATCH DRAIN
SCALE 1:20

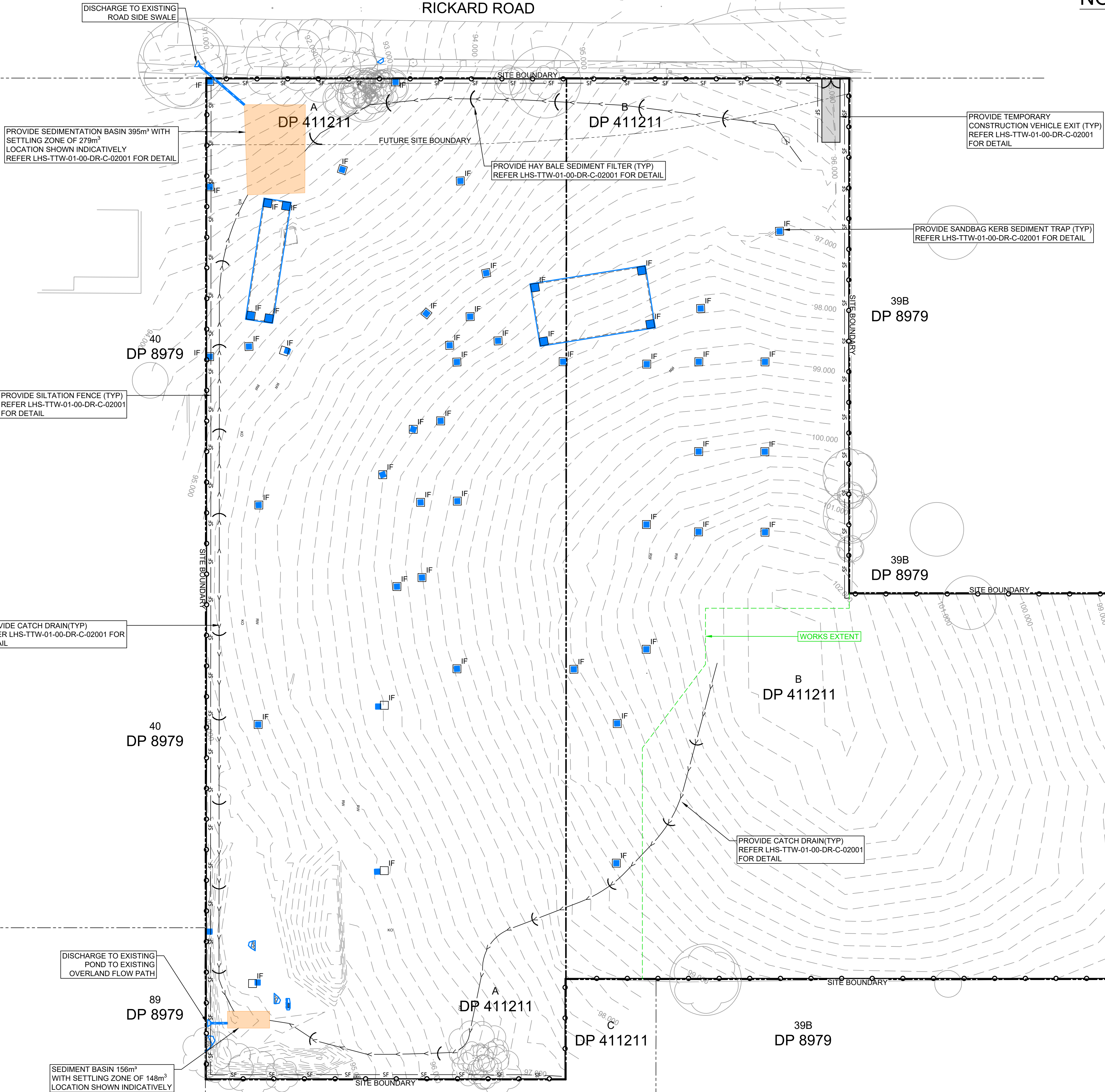
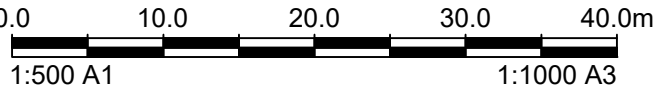
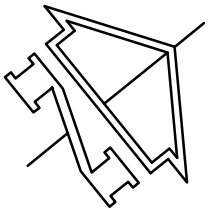


SECTION C
SCALE 1:20



KERB INLET SEDIMENT TRAP
SCALE 1:20

			Client:			Engineer:			Project:			Drawing Title:			Scale at A1		
									NEW HIGH SCHOOL FOR LEPPINGTON AND DENHAM COURT LEPPINGTON, NSW 2179			EROSION AND SEDIMENT CONTROL NOTES AND LEGEND			Drawn RT		
															Designed AW		
															Approved CR		
															Project No		
															Originator		
															Type		
															Role		
															Sheet No.		
															Rev		
															LHS-TTW-01-00-DR-C-02001-3		
															14.01.2025 4:31 PM		



Rev	Description	Eng Draft	Date	Rev	Description	Eng Draft	Date	Rev	Description	Eng Draft	Date
3	REF SUBMISSION	SF	RT 14.01.2025								
2	SCHEMATIC DESIGN FOR REF	SF	RT 13.12.2024								
1	FINAL DRAFT ISSUE FOR REF	SF	RT 21.11.2024								

Client:
 School Infrastructure NSW

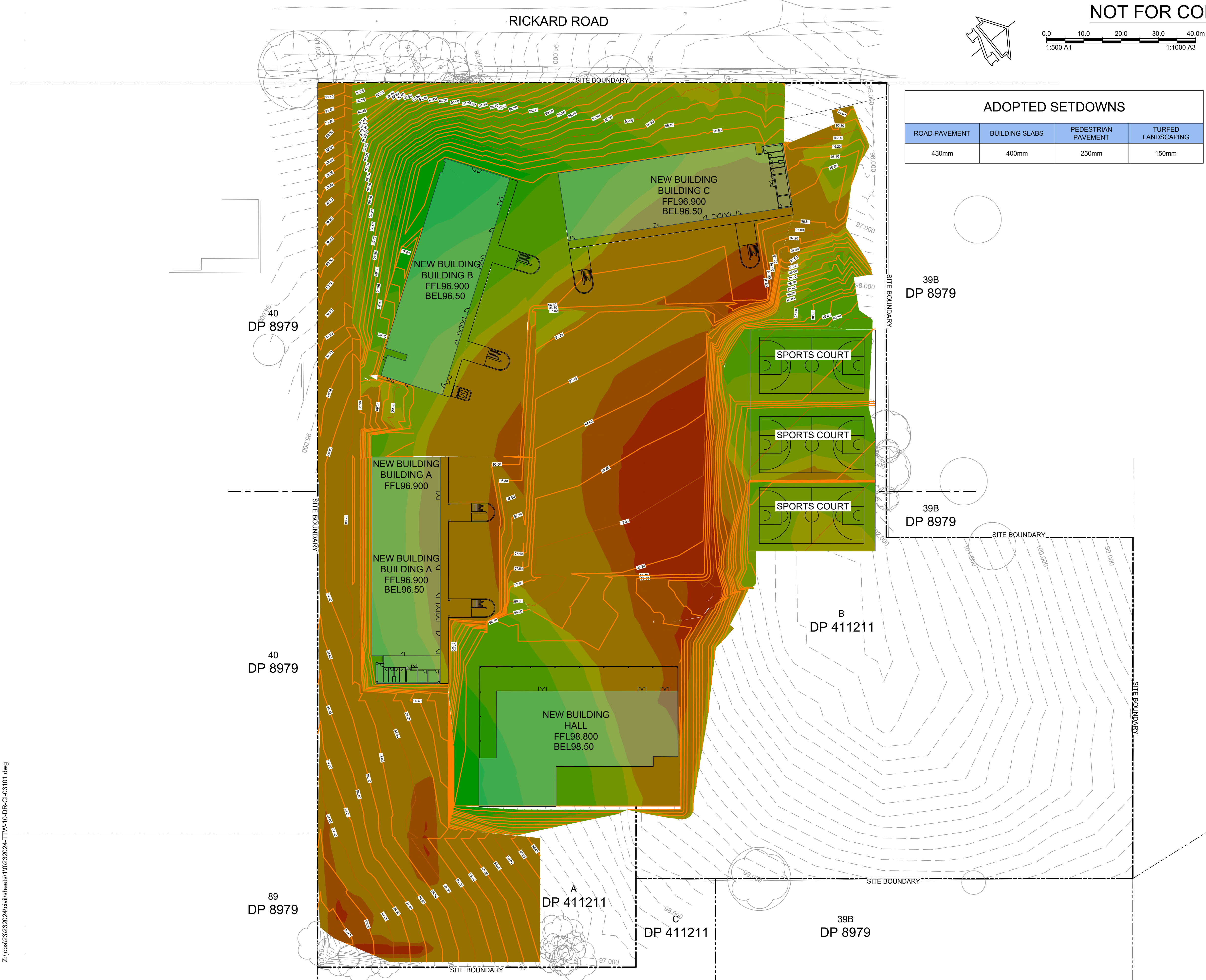
Engineer:
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Project:
NEW HIGH SCHOOL
FOR LEPPINGTON AND
DENHAM COURT
LEPPINGTON, NSW 2179

Drawing Title:
EROSION AND SEDIMENT
CONTROL PLAN

Scale at A1	Drawn	Designed	Approved	
500	RT	AW	CR	
Project No	Originator	Type	Role Sheet No.	Rev
LHS-TTW-01-00-DR-C-02101-3				
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- BULK EARTHWORKS NOTES**
- All bulk earthworks setout from grid lines U.N.O.
 - All batters at a slope of 2 (H) : 1 (V) U.N.O.
 - Excavated material may be used as structural fill provided,
(i) it complies with the specification requirements for fill material,
(ii) the placement moisture content complies with the Geotechnical Consultants requirements, and allows filling to be placed and proofrolled in accordance with the specification. Where necessary the Contractor must moisture condition the excavated material to meet these requirements.
 - Compact fill areas and subgrade to not less than:

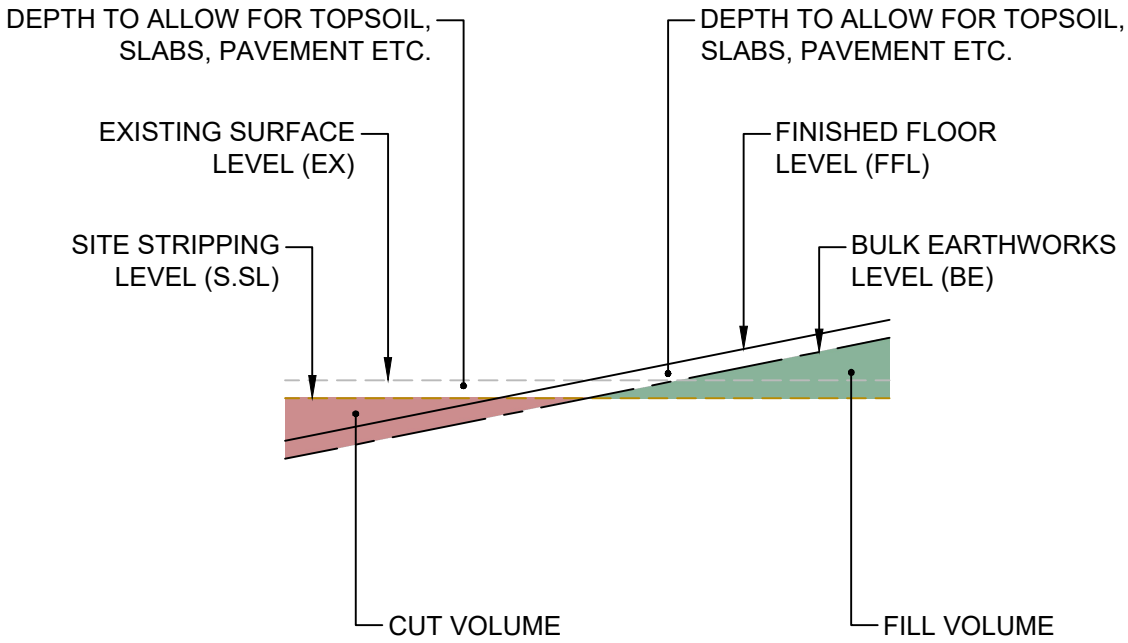
Location	Standard dry density (AS 1289 5.1.1.)	Moisture (OMC)
Under building slabs on ground:	98%	±2%
Under roads and carparks:	98%	±2%
Landscaped areas:	95%	±2%
 - Before placing fill, proof roll exposed subgrade with a 12 tonne minimum roller to test subgrade and then remove soft spots(areas with more than 3mm movement under roller). Soft spots to be replaced with granular fill U.N.O.
 - Contractor shall place safety barriers around excavations in accordance with relevant safety regulations.
 - For interpretation of bulk earthworks foot print line shown on the bulk earthworks drawings refer to the bulk earthworks construction legend.
 - Bulk earthwork drawings are not to be used for detailed excavation.
 - Refer to Geotechnical Report
 - Detailed earthworks such as piling, pile caps, ground beams, lift pits, service trenching & landscape mounding etc is excluded.
 - All bulk earthworks in accordance with AS3798-2007 Guidelines on earthworks for commercial and residential developments.

ADOPTED SETDOWNS			
ROAD PAVEMENT	BUILDING SLABS	PEDESTRIAN PAVEMENT	TURFED LANDSCAPING
450mm	400mm	250mm	150mm

LEVELS TABLE			
No.	FROM LEVEL (m)	TO LEVEL (m)	COLOUR
1	-2.75	-2.20	
2	-2.20	-1.70	
3	-1.70	-1.20	
4	-1.20	-0.70	
5	-0.70	-0.20	
6	-0.20	0.00	
7	0.00	0.50	
8	0.50	1.00	
9	1.00	1.50	
10	1.50	2.00	
11	2.00	2.50	
12	2.50	3.17	

CUT/FILL SUMMARY			
AREA (m²)	CUT (m³)	FILL (m³)	NET (m³)
27948	13366	8742	4624(CUT)

- NOTES:**
- SITE STRIP OF TOPSOIL HAS NOT BEEN SEPARATED FOR CUT AND FILL VOLUMES. CONTRACTOR TO MAKE ALLOWANCE FOR SITE STRIP, STOCKPILE AND DISPOSAL.
 - STRUCTURAL SLAB ON GRADE SOLUTION FOR GROUND FLOOR BUILDING SLABS ASSUMES REMOVAL OF THE EXISTING FILL AND RE-COMPACTION OF SITE-WON CLAY TO A MAXIMUM DEPTH OF 500mm. ANY ADDITION FILLING REQUIRED TO MEET BULK EXCAVATION LEVELS IS TO USE A NON-REACTIVE GRANULAR MATERIAL. REFER TO THE GEOTECHNICAL ADVICE FOR FURTHER DETAIL.
 - BULK EARTHWORKS PREPARED TO A SCHEMATIC DESIGN LEVEL ONLY BASED ON INFORMATION AVAILABLE. CONTRACTOR TO CONDUCT THEIR OWN ASSESSMENT OF BULK EARTHWORKS CUT AND FILL VOLUMES.
 - CONTRACTOR TO MAKE ALLOWANCE FOR STOCKPILE/ SPREADING OF EXCESS CUT ON SITE.



EARTHWORKS TYPICAL SECTION

LEGEND			
---	EX308.00	---	EXISTING SURFACE CONTOUR
---	BE308.80	---	BULK EARTHWORKS CONTOUR

Rev	Description	Eng Draft	Date	Rev	Description	Eng Draft	Date	Rev	Description	Eng Draft	Date
3	REF SUBMISSION	SF	RT 14.01.2025								
2	SCHEMATIC DESIGN FOR REF	SF	RT 13.12.2024								
1	FINAL DRAFT ISSUE FOR REF	SF	RT 21.11.2024								

Client:

School Infrastructure NSW

Engineer:

www.ttweengineers.com

Project:

NEW HIGH SCHOOL
FOR LEPPINGTON AND
DENHAM COURT
LEPPINGTON, NSW 2179

Drawing Title:

EARTHWORKS
CUT AND FILL
VOLUMES PLAN

Scale at A1: 500

Drawn: RT

Designed: AW

Approved: CR

Project No: LHS-TTW-01-00-DR-C-03101-3

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STORMWATER DRAINAGE

1. STORMWATER DESIGN CRITERIA
- (A) AVERAGE EXCEEDANCE PROBABILITY: -
 - 1% AEP FOR ROOF DRAINAGE TO FIRST EXTERNAL PIT
 - 5% AEP FOR PAVED AND LANDSCAPED AREAS
- (B) RAINFALL INTENSITIES : -
 - TIME OF CONCENTRATION: 5 MINUTES
 - 1% AEP = 228mm/hr
 - 5% AEP = 168mm/hr
- (C) RAINFALL LOSSES: -
 - IMPERVIOUS AREAS: IL = 1mm CL= 0mm/hr
 - PERVIOUS AREAS: IL = 25.96mm CL= 0.92mm/hr
2. PIPES 300 DIA AND LARGER TO BE REINFORCED CONCRETE CLASS "A" APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS U.N.O.
3. PIPES UP TO 300 DIA MAY BE SEWER GRADE UPVC WITH SOLVENT WELDED JOINTS, SUBJECT TO APPROVAL BY THE ENGINEER
4. EQUIVALENT STRENGTH VCP OR FRP PIPES MAY BE USED SUBJECT TO APPROVAL.
5. PRECAST PITS MAY BE USED EXTERNAL TO THE BUILDING SUBJECT TO APPROVAL BY **ENGINEER**.
6. ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE MANUFACTURED FITTINGS WHERE PIPES ARE LESS THAN 300 DIA.
7. WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED UPVC SEWER GRADE PIPE IS TO BE USED.
8. GRATES AND COVERS SHALL CONFORM WITH AS 3996-2006, AND AS 1428.1 FOR ACCESS REQUIREMENTS.
9. PIPES ARE TO BE INSTALLED IN ACCORDANCE WITH AS 3725, ALL BEDDING TO BE TYPE H2 U.N.O.
10. CARE IS TO BE TAKEN WITH INVERT LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.
11. ALL STORMWATER PIPES TO BE 150 DIA AT 1.0% MIN FALL U.N.O.
12. SUBSOIL DRAINS TO BE SLOTTED FLEXIBLE UPVC U.N.O.
13. ADOPT INVERT LEVELS FOR PIPE INSTALLATION (GRADES SHOWN ARE ONLY NOMINAL).

STORMWATER PIPE INFORMATION

PIPE INFORMATION		TIE INFORMATION	
USIL Ø000	UPSTREAM INVERT LEVEL	SW	TIE LENGTH
0.0m	PIPE INTERNAL DIAMETER	L 10.0m	TIE DEPTH
0.0 m/s	PIPE MATERIAL AND CLASS	D 1.0m	TIE DIAMETER
%0.0	PIPE LENGTH	Ø150	
DSIL	HYDRAULIC FLOW RATE		
	PIPE GRADE		
	DOWNSTREAM INVERT LEVEL		


STORMWATER STRUCTURE IDENTIFICATION


SW1-2 LINE NUMBER 1 - STRUCTURE NUMBER 2


SUBSOIL DRAINAGE


1. ALL SUBSOIL DRAINAGE WORKS ARE TO BE COMPLETED IN ACCORDANCE WITH THE RELEVANT STANDARDS AND SPECIFICATIONS OUTLINED IN THE PROJECT SPECIFICATION.
2. WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS UNSLOTTED uPVC SEWER GRADE PIPE IS TO BE USED.
3. SUBSOIL DRAINS TO BE Ø100 SLOTTED FLEXIBLE uPVC UNLESS NOTED OTHERWISE.
4. ALL SUBSOIL DRAINS ARE TO BE AT MINIMUM 1% GRADE UNLESS NOTED OTHERWISE.
5. ALL SUBSOIL DRAINS TO BE RODDED PRIOR TO THE PLACEMENT OF ASPHALT.
6. ALL SUBSOIL DRAINS ARE DRAWN DIAGRAMMATICALLY FOR CLARITY. REFER TO TYPICAL DETAIL FOR SUBSOIL SETOUT.


STORMWATER LEGEND


 STORMWATER PIT AND PIPE


 DOWN PIPE


 RODDING POINT


 PLANTER OUTLET

 RAINWATER OUTLET

 GROSS POLLUTANT TRAP

 OVERLAND FLOW ARROW

 CONCRETE INCASED PIPE

 SWALE DRAIN

STORMWATER ANNOTATIONS

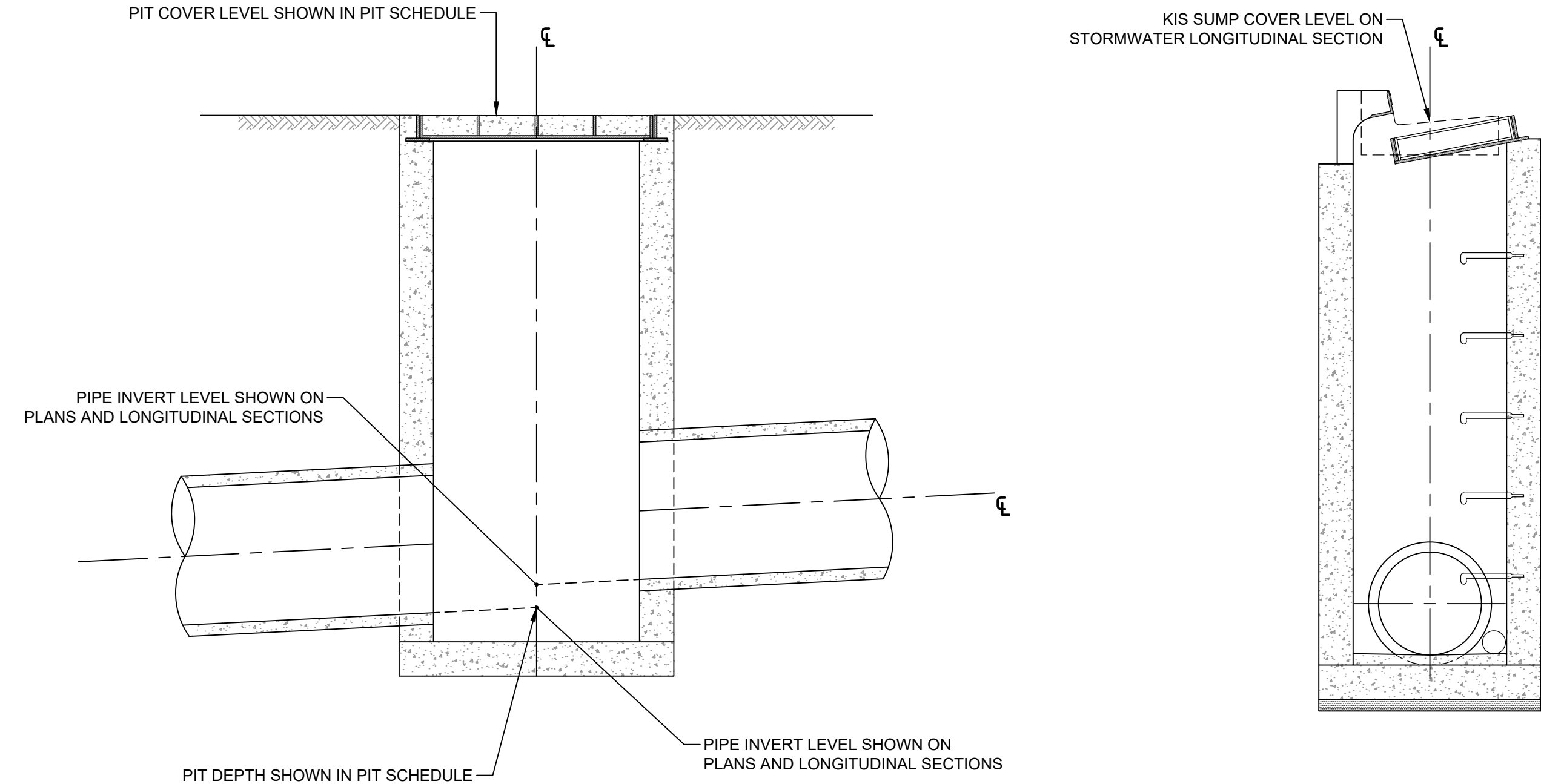
IL	PIPE INVERT LEVEL
OL	PIPE OBVERT LEVEL
CL	PIT COVER LEVEL
WL	WATER LEVEL

NOTE

STORMWATER DRAINAGE NOTES AND LEGEND IS TO READ IN CONJUNCTION WITH GENERAL NOTES AND LEGEND. REFER DRAWING No. 00002

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DESIGN INVERT LEVELS
AT STORMWATER STRUCTURES
SCALE 1:20

KERB INLET STRUCTURE (KIS)
COVER LEVEL FOR KIS IN ROAD
SCALE 1:20

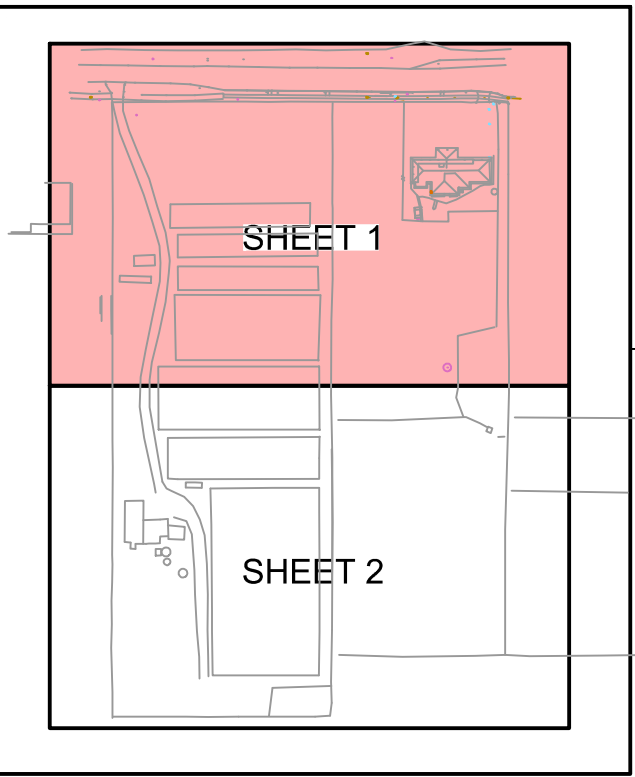
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											School Infrastructure NSW		NEW HIGH SCHOOL FOR LEPPINGTON AND DENHAM COURT LEPPINGTON, NSW 2179	STORMWATER NOTES AND LEGEND	RT	AW	CR			
														Project No	Originator	Type	Role	Sheet No.	Rev	
														LHS-TTW-01-00-DR-C-04001-3						
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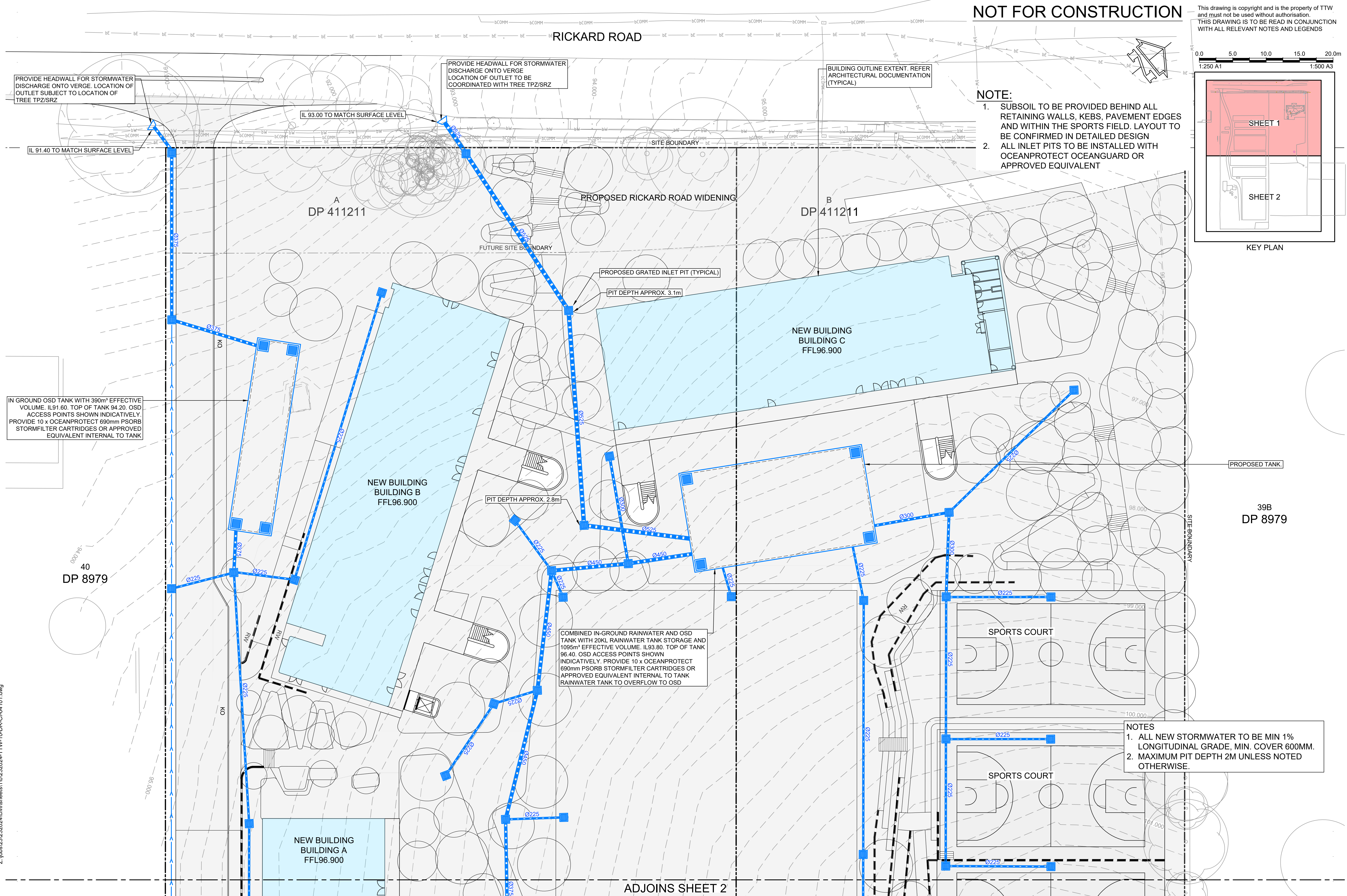
0.0 5.0 10.0 15.0 20.0m
1:250 A1 1:500 A3



KEY PLAN

NOTE:

- SUBSOIL TO BE PROVIDED BEHIND ALL RETAINING WALLS, KEBS, PAVEMENT EDGES AND WITHIN THE SPORTS FIELD. LAYOUT TO BE CONFIRMED IN DETAILED DESIGN
- ALL INLET PITS TO BE INSTALLED WITH OCEANPROTECT OCEANGUARD OR APPROVED EQUIVALENT



NOTES

- ALL NEW STORMWATER TO BE MIN 1% LONGITUDINAL GRADE, MIN. COVER 600MM.
- MAXIMUM PIT DEPTH 2M UNLESS NOTED OTHERWISE.

3 REF SUBMISSION SF RT 14.01.2025			Client:			Engineer:			Project:			Drawing Title:			Scale at A1			Drawn			Designed			Approved		
2 SCHEMATIC DESIGN FOR REF SF RT 13.12.2024									NEW HIGH SCHOOL FOR LEPPINGTON AND DENHAM COURT LEPPINGTON, NSW 2179			STORMWATER AND SUBSOIL DRAINAGE PLAN SHEET 1			250			RT			AW			CR		
1 FINAL DRAFT ISSUE FOR REF SF RT 21.11.2024															Project No			Originator			Type			Role Sheet No.		
Rev Description Eng Draft Date			Rev Description Eng Draft Date			Rev Description Eng Draft Date									LHS-TTW-01-00-DR-C-04101-3									15.01.2025 10:23 AM		



School Infrastructure NSW



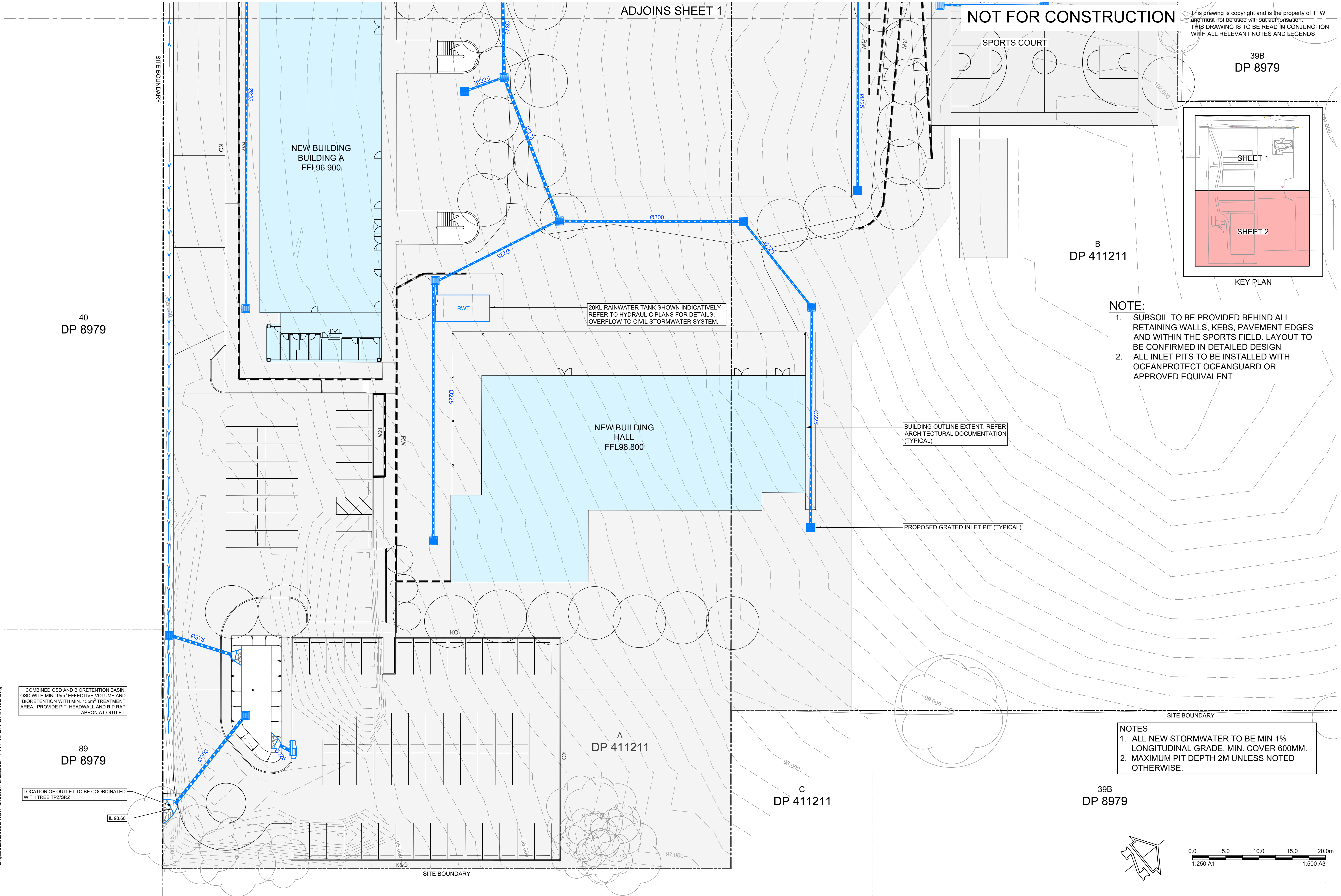
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Project:
NEW HIGH SCHOOL
FOR LEPPINGTON AND
DENHAM COURT
LEPPINGTON, NSW 2179

Drawing Title:
STORMWATER
AND SUBSOIL DRAINAGE
PLAN SHEET 1

Scale at A1
250
Project No
Originator
Type
Role Sheet No.
Rev
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NOTE:

- SUBSOIL TO BE PROVIDED BEHIND ALL RETAINING WALLS, KEBS, PAVEMENT EDGES AND WITHIN THE SPORTS FIELD. LAYOUT TO BE CONFIRMED IN DETAILED DESIGN
- ALL INLET PITS TO BE INSTALLED WITH OCEANPROTECT OCEANGUARD OR APPROVED EQUIVALENT

NOTES


- ALL NEW STORMWATER TO BE MIN 1% LONGITUDINAL GRADE, MIN. COVER 600MM.
- MAXIMUM PIT DEPTH 2M UNLESS NOTED OTHERWISE.

Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date
3	REF SUBMISSION	SF	RT	14.01.2025										
2	SCHEMATIC DESIGN FOR REF	SF	RT	13.12.2024										
1	FINAL DRAFT ISSUE FOR REF	SF	RT	21.11.2024										

Client:

 **School Infrastructure NSW**

Engineer:

 **TTW**
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Project:

**NEW HIGH SCHOOL
FOR LEPPINGTON AND
DENHAM COURT
LEPPINGTON, NSW 2179**

Drawing Title:

**STORMWATER
AND SUBSOIL DRAINAGE
PLAN SHEET 2**

Scale at A1: 250

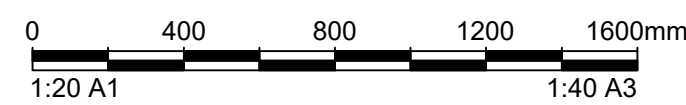
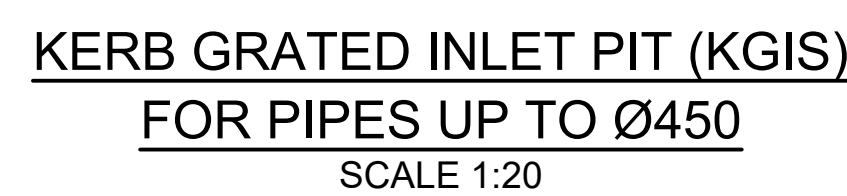
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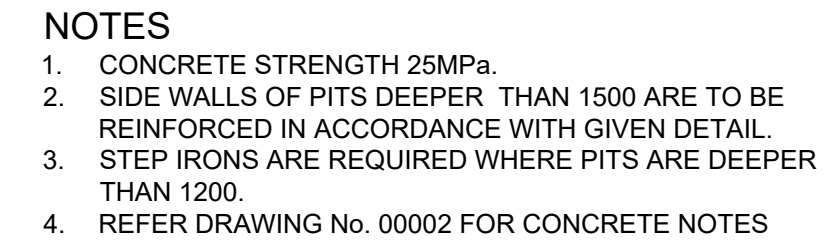
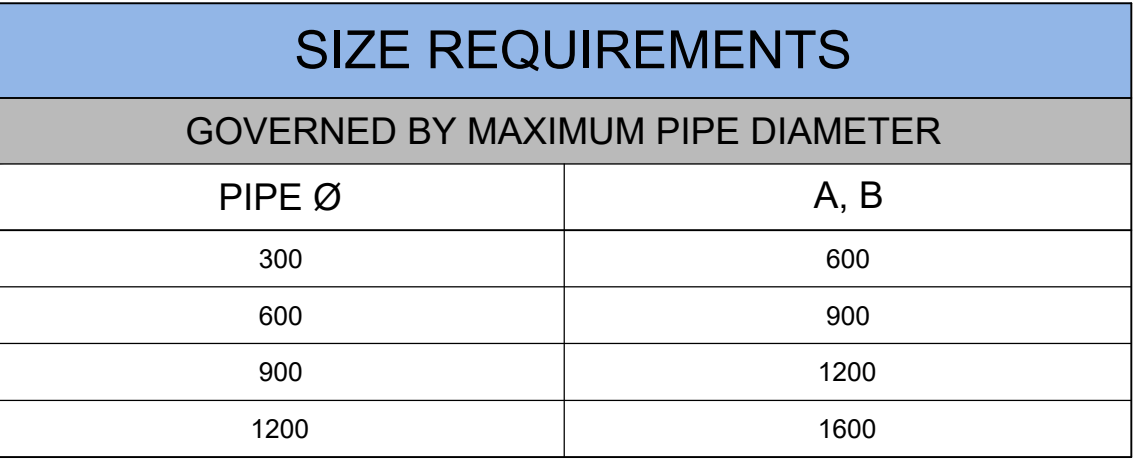
Designed: AW

Approved: CR

Project No: LHS-TTW-01-00-DR-C-04102-3

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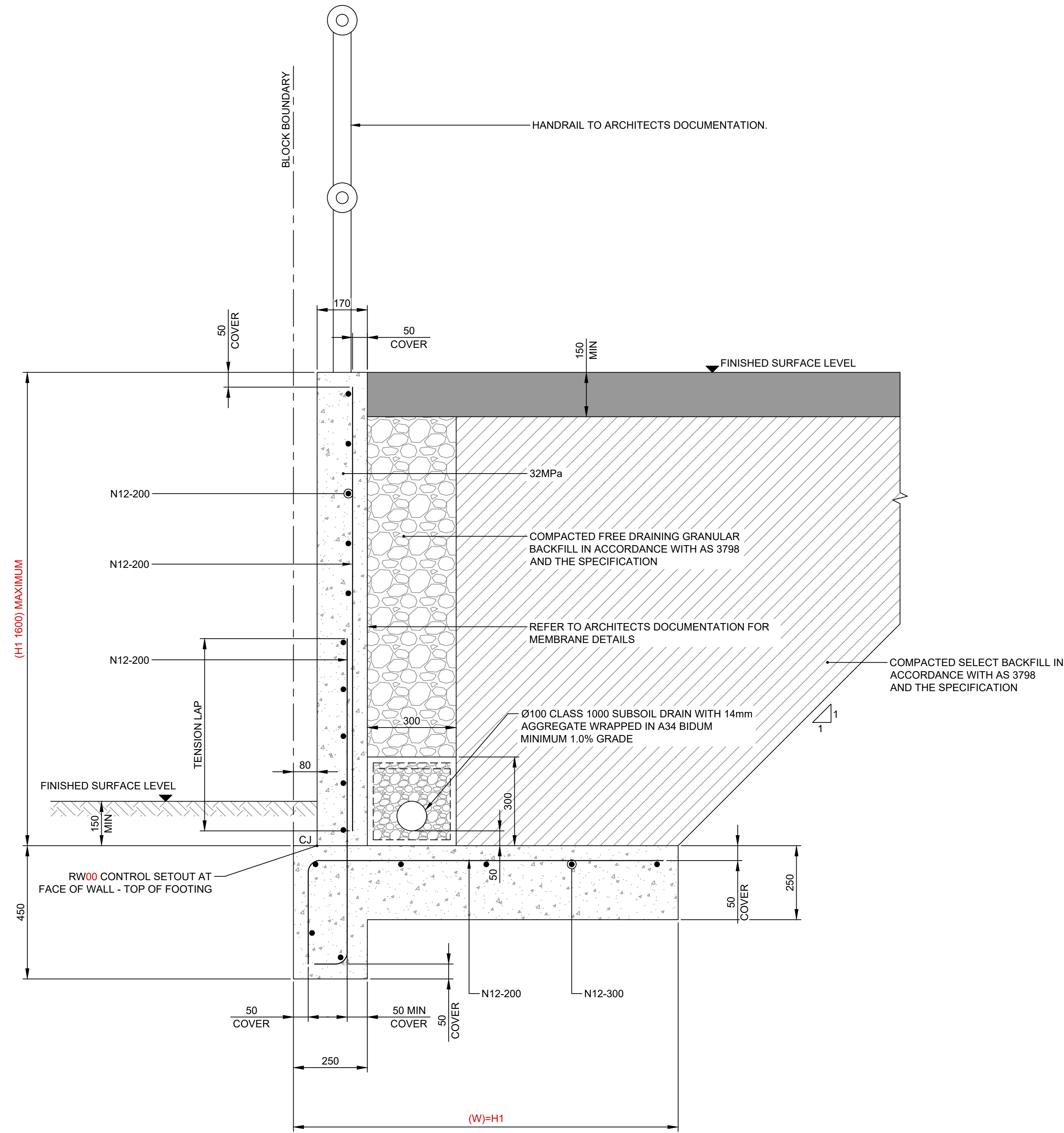
NOTE: RETAINING WALLS ARE SHOWN INDICATIVELY AND ARE SUBJECT TO DETAILED DESIGN

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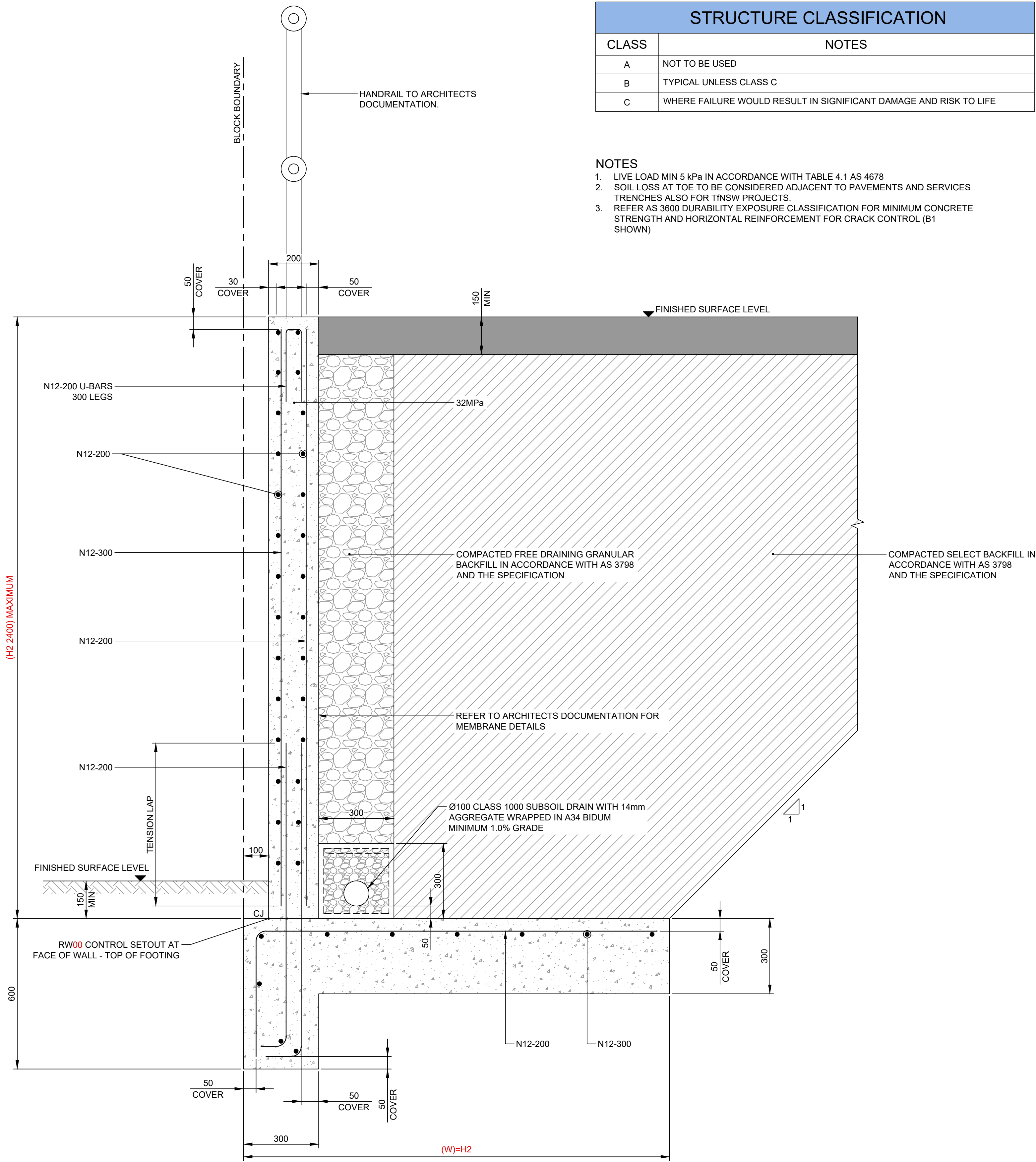
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STRUCTURE CLASSIFICATION	
CLASS	NOTES
A	NOT TO BE USED
B	TYPICAL UNLESS CLASS C
C	WHERE FAILURE WOULD RESULT IN SIGNIFICANT DAMAGE AND RISK TO LIFE

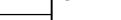

- NOTES
- LIVE LOAD MIN 5 kPa IN ACCORDANCE WITH TABLE 4.1 AS 4678
 - SOIL LOSS AT TOE TO BE CONSIDERED ADJACENT TO PAVEMENTS AND SERVICES TRENCHES ALSO FOR TNSW PROJECTS.
 - REFER AS 3600 DURABILITY EXPOSURE CLASSIFICATION FOR MINIMUM CONCRETE STRENGTH AND HORIZONTAL REINFORCEMENT FOR CRACK CONTROL (B1 SHOWN)



RETAINING WALL TYPE - 1
170 THICK REINFORCED CONCRETE
SCALE 1:10



RETAINING WALL TYPE - 2
200 THICK REINFORCED CONCRETE
SCALE 1:10

										<div><div>School Infrastructure NSW</div></div>	<div><div>Engineer:</div><div><div>www.ttwingeers.com</div></div></div>	<div><div>Project:</div><div>NEW HIGH SCHOOL FOR LEPPINGTON AND DENHAM COURT LEPPINGTON, NSW 2179</div></div>	<div><div>Drawing Title:</div><div>RETAINING WALLS DETAILS</div></div>	<div><div>Scale at A1</div><div>10</div></div>	<div><div>Drawn</div><div>RT</div></div>	<div><div>Designed</div><div>AW</div></div>	<div><div>Approved</div><div>CR</div></div>
<div><div>Rev</div><div>Description</div><div>Eng</div><div>Draft</div><div>Date</div></div>	<div><div>Rev</div><div>Description</div><div>Eng</div><div>Draft</div><div>Date</div></div>	<div><div>Rev</div><div>Description</div><div>Eng</div><div>Draft</div><div>Date</div></div>	<div><div>Project No</div><div>LHS-TTW-01-00-DR-C-06501-3</div></div>	<div><div>Originator</div><div>14.01.2025 4:34 PM</div></div>	<div><div>Type</div></div>	<div><div>Role</div></div>	<div><div>Sheet No.</div></div>	<div><div>Rev</div></div>									

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1. PLACE CONCRETE OF THE FOLLOWING CHARACTERISTIC COMPRESSIVE STRENGTH f_c IN ACCORDANCE WITH AS 1379.
- 2.

3. USE TYPE 'GP' CEMENT, UNLESS OTHERWISE SPECIFIED.
4. ALL CONCRETE SHALL BE SUBJECT TO PROJECT ASSESSMENT AND TESTING TO AS 1379.
5. CONSOLIDATE BY MECHANICAL VIBRATION. CURE ALL CONCRETE SURFACES AS DIRECTED IN THE SPECIFICATION.
6. FOR ALL FALLS IN SLAB, DRIP GROOVES, REGLETS, CHAMFERS ETC. REFER TO ARCHITECTS DRAWINGS AND SPECIFICATIONS.
7. UGLS SHOWN ON THE DRAWINGS, THE LOCATION OF ALL CONSTRUCTION JOINTS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW.
8. NO HOLES OR CHASES SHALL BE MADE IN THE SLAB WITHOUT THE APPROVAL OF THE ENGINEER.
9. CONDUITS AND PIPES ARE TO BE FIXED TO THE UNDERSIDE OF THE TOP REINFORCEMENT LAYER.
10. SLURRY USED TO LUBRICATE CONCRETE PUMP LINES IS NOT TO BE USED IN ANY STRUCTURAL MEMBERS.
11. ALL SLABS CAST ON GROUND REQUIRE SAND BLINDING WITH A CONCRETE UNDERLAY

1. ALL EXPOSED CONCRETE PAVEMENTS ARE TO BE BROOMED FINISHED.
2. ALL EDGES OF THE CONCRETE PAVEMENT INCLUDING KEYS AND DOWELLED JOINTS ARE TO BE FINISHED WITH AN EDGING TOOL.
3. CONCRETE PAVEMENTS WITH GRADES GREATER THAN 10 % SHALL BE HEAVILY BROOMED FINISHED.
4. CARBORUNDUM TO BE ADDED TO ALL STAIR TREADS AND RAMPED CROSSINGS U.N.O.

1. THE DESIGN, CERTIFICATION, CONSTRUCTION AND PERFORMANCE OF THE FORMWORK, FALSEWORK AND BACKPROPPING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. PROPOSED METHOD OF INSTALLATION AND REMOVAL OF FORMWORK IS TO BE SUBMITTED TO THE SUPERINTENDENT FOR COMMENT PRIOR TO WORK BEING CARRIED OUT.

PT1	<p>CONCRETE BLEACHERS</p>
PT2	<p>HARDSTANDING - PEDESTRIAN PAVEMENT 125MM THICK 32MPA CONCRETE (COLOUR OXIDE TO LANDSCAPE SPECIFICATION) SL72 ON, 150MM THICK COMPACTED FINE CRUSHED ROCK (DGB20) ON, COMPACTED SUBGRADE</p>
PT3	<p>CARPAK AND DELIVERY ZONE 40mm COMPACTED THICKNESS AC14 WEARING COURSE ON 150mm COMPACTED THICKNESS DGB20 CLASS 1 BASE TO 98% MMDD AT ±2% OMC ON 175mm COMPACTED THICKNESS DGS20 SUBBASE TO 98% MMDD AT ±2% OMC ON SUBGRADE MIN. CBR 4% COMPACTED TO 98% SMDD AT ±2% OMC</p>
PT4	<p>MULTI SPORTS COURTS TO LANDSCAPE ARCHITECT'S DOCUMENTATION</p>
PT5	<p>SPORTS FIELD TO LANDSCAPE ARCHITECT'S DOCUMENTATION</p>
PT6	<p>HARDSTANDING - PEDESTRIAN PAVEMENT 125MM THICK 32MPA CONCRETE (COLOUR OXIDE TO LANDSCAPE SPECIFICATION) SL72 ON, 150MM THICK COMPACTED FINE CRUSHED ROCK (DGB20) ON, COMPACTED SUBGRADE</p>
PT8	<p>RIGID PAVEMENT - LOADING DOCK AND WASTE 170MM THICK FC 32MPA WITH F82 MESH 100MM THICK COMPACTED FINE CRUSHED ROCK (DGB20) ON, COMPACTED SUBGRADE</p>
	<p>LANDSCAPING REFER TO LANDSCAPE ARCHITECT'S DOCUMENTATION</p>

1. PAVEMENT BUILDUPS ARE INDICATIVE AND TO BE DEVELOPED IN DETAILED DESIGN
2. ADOPTED DESIGN PARAMETERS:
DESIGN TRAFFIC 5×10^5 ESA, SUBGRADE 4% CBR MIN.

1. FIX REINFORCEMENT AS SHOWN ON DRAWINGS. THE TYPE AND GRADE IS INDICATED BY A SYMBOL AS SHOWN BELOW. ON THE DRAWINGS THIS IS FOLLOWED BY A NUMERAL WHICH INDICATES THE SIZE IN MILLIMETRES OF THE REINFORCEMENT.

2. PROVIDE BAR SUPPORTS OR SPACERS TO GIVE THE FOLLOWING CONCRETE COVER TO ALL REINFORCEMENT UNLESS OTHERWISE NOTED ON DRAWINGS.

3. COVER TO REINFORCEMENT ENDS TO BE 50 mm U.N.O.
4. PROVIDE N12-450 SUPPORT BARS TO TOP REINFORCEMENT AS REQUIRED, LAP 500 U.N.O.
5. MAINTAIN COVER TO ALL PIPES, CONDUITS, REGLETS, DRIP GROOVES ETC
6. ALL CGS TO BE STANDARD CGS UNLESS NOTED OTHERWISE.
7. FABRIC END AND SIDE LAPS ARE TO BE PLACED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS TO ACHIEVE A FULL TENSILE LAP. FABRIC SHALL BE LAID SO THAT THERE IS A MAXIMUM OF 3 LAYERS AT ANY LOCATION.

FABRIC LAP

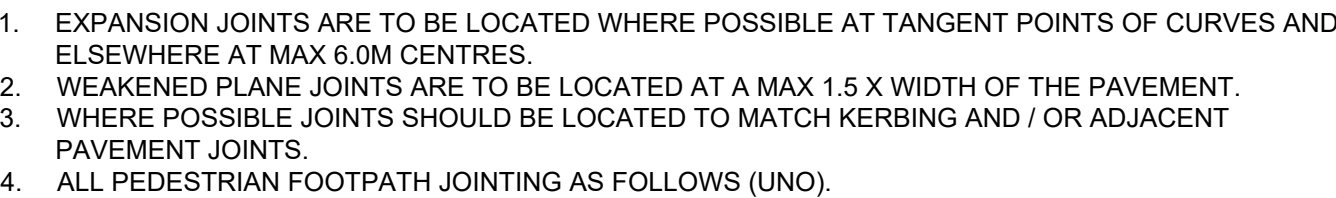
8. LAPS IN REINFORCEMENT SHALL BE MADE ONLY WHERE SHOWN ON THE DRAWINGS UNLESS OTHERWISE APPROVED. LAP LENGTHS AS PER TABLE BELOW.

COMPRESSION LAPS	
BAR SIZE	
N16	640
N20	800
N24	960
N28	1120
N32	1280
N36	1440

ASSUMPTIONS:

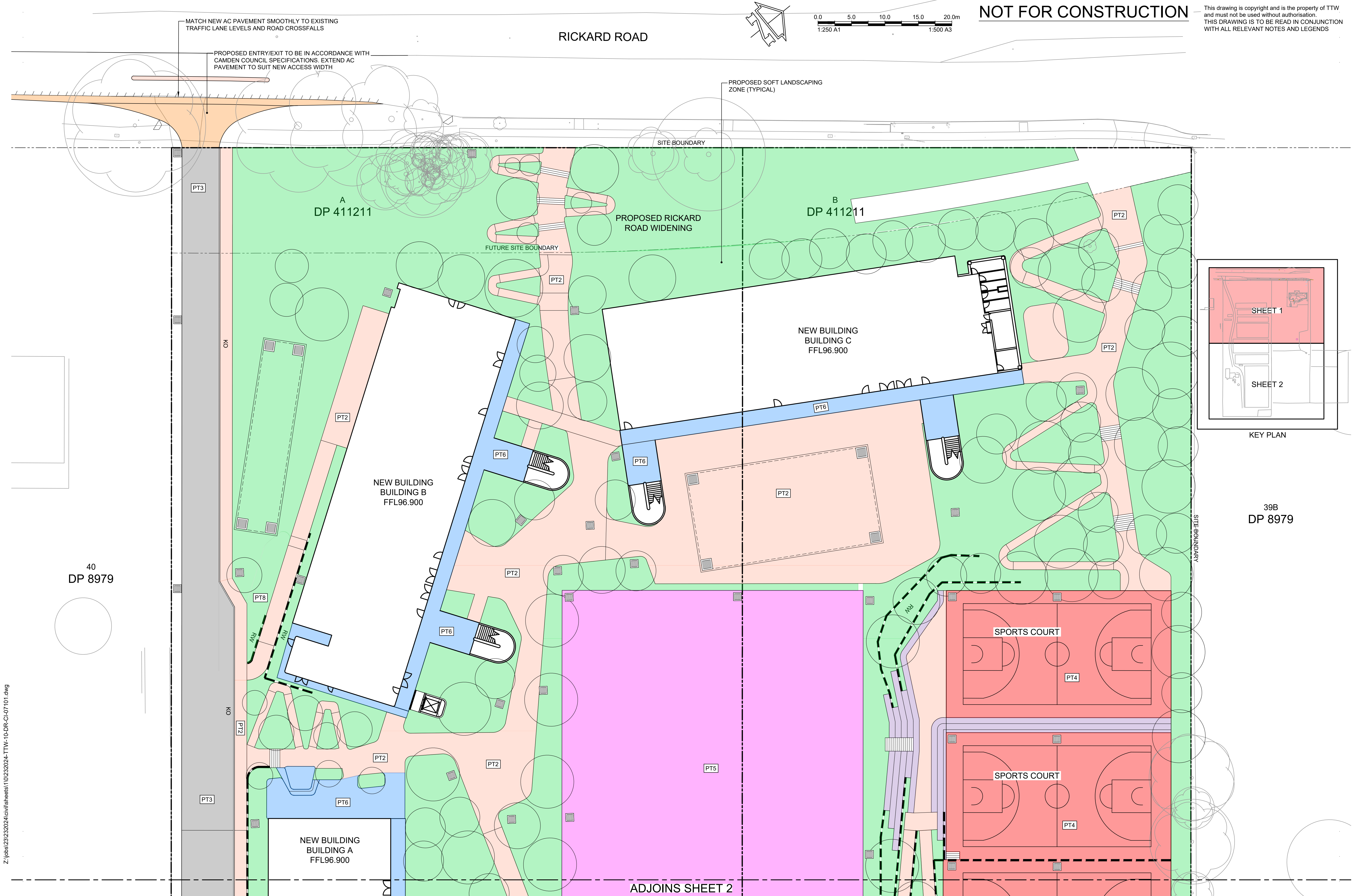
1. TOP BARS IN BANDS AND BEAMS:
MORE THAN 300mm OF CONCRETE BELOW THE BAR.
2. MINIMUM COVER OF 25mm AND MINIMUM STIRRUP SIZE OF N12 GIVING Cd=37mm; THEREFORE MINIMUM CLEAR SPACING BETWEEN BARS = 2 X Cd = 74mm. MINIMUM COVER IS BASED ON THE NEW A2 EXPOSURE CLASSIFICATION FOR INTERIOR, NON-RESIDENTIAL WHICH REQUIRES 25mm COVER FOR 32Mpa CONCRETE.
3. $f_c = 32\text{Mpa}$
4. ALL OTHER BARS:
1. LESS THAN 300mm OF CONCRETE BELOW THE BAR.
2. MINIMUM COVER OF 25mm GIVING Cd = 25mm; THEREFORE MINIMUM CLEAR SPACING BETWEEN BARS = 2 X Cd = 50mm.
3. $f_c = 32\text{Mpa}$
5. COLUMNS:
1. COVER TO COLUMNS = 40mm (30+10)k7 = 1.25
2. COVERS FOR FIRE RATING ARE TO BE DESIGNED BY THE ENGINEER.

1. ALL VEHICULAR PAVEMENTS TO BE JOINTED AS SHOWN ON DRAWINGS.
2. DOWEL BARS ARE TO BE IN ACCORDANCE WITH GIVEN DETAIL. REFER 03000 SERIES DRAWINGS.
3. DOWELED EXPANSION JOINTS SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 24.0 M CENTRES.
4. SAWN JOINTS SHALL BE LOCATED AT A MAXIMUM OF 6.0 M CENTRES OR 1.5 X THE SPACING OF PERPENDICULAR SAWN JOINTS.
5. PROVIDE 10mm wide FULL DEPTH EXPANSION JOINTS BETWEEN BUILDINGS/STRUCTURES AND ALL CONCRETE OR UNIT PAVES.
6. THE TIMING OF THE SAW CUT IS TO BE CONFIRMED BY THE CONTRACTOR ON SITE. SITE CONDITIONS WILL DETERMINE HOW MANY HOURS AFTER THE CONCRETE POUR BEFORE THE SAW CUTS ARE COMPLETED. REFER TO THE SPECIFICATION FOR WEATHER CONDITIONS AND TEMPERATURES REQUIRED.
7. VEHICULAR PAVEMENT JOINTING AS FOLLOWS.



1. ALL KERBS, GUTTERS, DISH DRAINS AND CROSSINGS TO BE CONSTRUCTED ON MINIMUM 75mm GRANULAR BASECOURSE COMPACTED TO MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1.
2. EXPANSION JOINTS (EJ) TO BE FORMED FROM 10mm COMPRESSIBLE CORK FILLER BOARD FOR THE FULL DEPTH OF THE SECTION AND CUT TO PROFILE. EXPANSION JOINTS TO BE LOCATED AT DRAINAGE PITS, ON TANGENT POINTS OF CURVES AND ELSEWHERE AT 12M CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATIONS IN SLABS.
3. WEAKENED PLANE JOINTS TO BE MIN 3mm WIDE AND LOCATED AT 3M CENTRES EXCEPT FOR INTEGRAL KERBS WHERE WEAKENED PLANE JOINTS ARE TO MATCH THE JOINT LOCATIONS IN SLABS.
4. BROOMED FINISHED TO ALL RAMPED AND VEHICULAR CROSSINGS, ALL OTHER KERBING OR DISH DRAINS TO BE STEEL FLOAT FINISHED.
5. IN THE REPLACEMENT OF KERBS - EXISTING ROAD PAVEMENT IS TO BE SAWCUT 900mm FROM LIP OF GUTTER. UPON COMPLETION OF NEW KERBS, NEW BASE COURSE AND SURFACE IS TO BE LAID 900mm WIDE TO MATCH EXISTING MATERIALS AND THICKNESSES. EXISTING ALLOTMENT DRAINAGE PIPES ARE TO BE BUILT INTO THE NEW KERB WITH A 100mm DIA HOLE. EXISTING KERBS ARE TO BE COMPLETELY REMOVED WHERE NEW KERBS ARE SHOWN.

[illegible]



NOT FOR CONSTRUCTION

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Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date
3	REF SUBMISSION	SF	RT	14.01.2025										
2	SCHEMATIC DESIGN FOR REF	SF	RT	13.12.2024										
1	FINAL DRAFT ISSUE FOR REF	SF	RT	21.11.2024										

Client:  School Infrastructure NSW

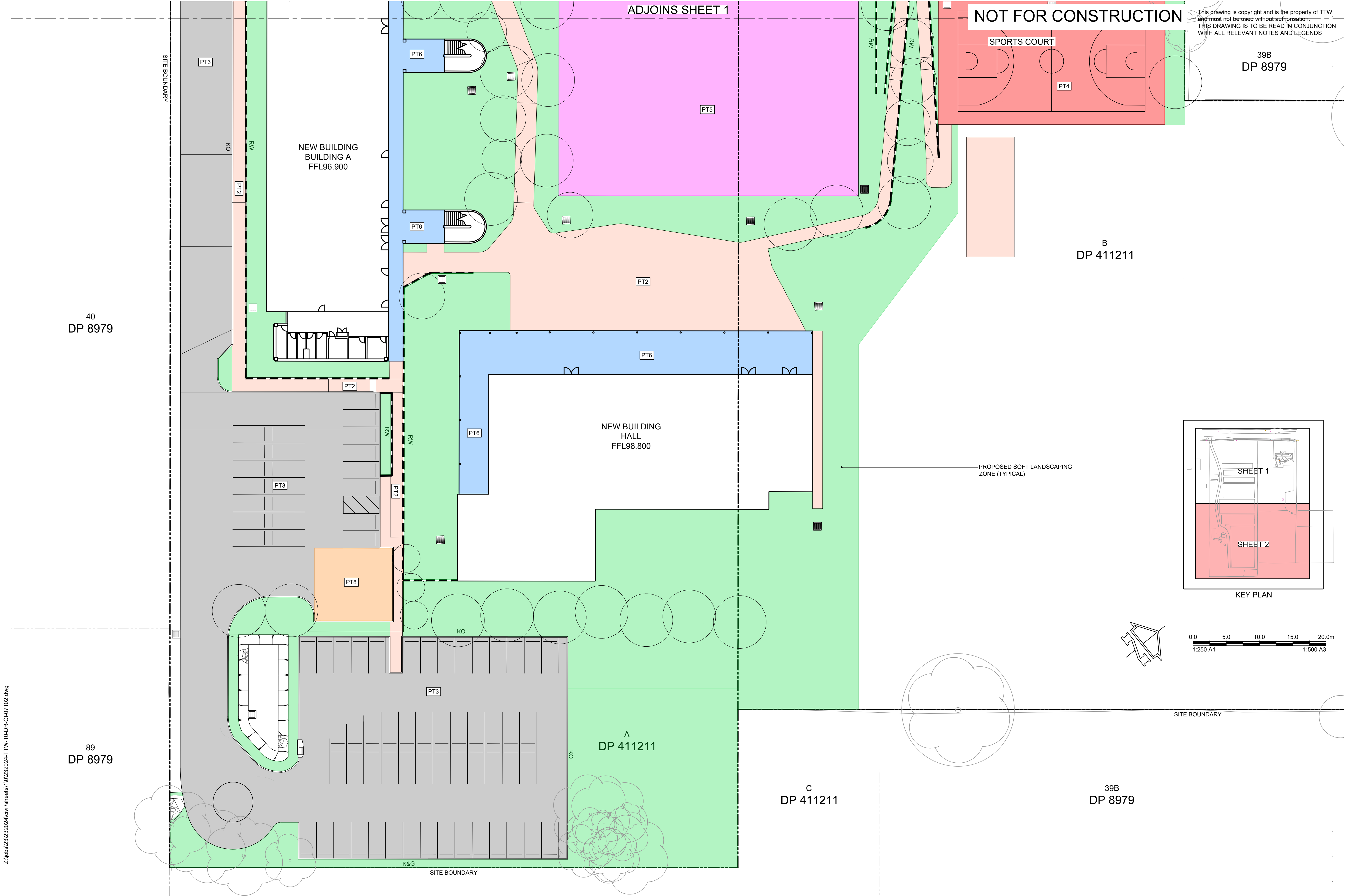
Engineer:  www.ttwengineers.com

Project: NEW HIGH SCHOOL FOR LEPPINGTON AND DENHAM COURT
LEPPINGTON, NSW 2179

Drawing Title: PAVEMENT PLAN
SHEET 1

Scale at A1: 250
Project No: LHS-TTW-01-00-DR-C-07101-3
15.01.2025 10:26 AM
Drawn: RT
Designed: AW
Approved: CR
Type: Role: Sheet No.: Rev

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Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date	Rev	Description	Eng	Draft	Date
3	REF SUBMISSION	SF	RT	14.01.2025										
2	SCHEMATIC DESIGN FOR REF	SF	RT	13.12.2024										
1	FINAL DRAFT ISSUE FOR REF	SF	RT	21.11.2024										

Client:

 **School Infrastructure NSW**

Engineer:

 **TTW**
www.ttweengineers.com

Project:

**NEW HIGH SCHOOL
FOR LEPPINGTON AND
DENHAM COURT
LEPPINGTON, NSW 2179**

Drawing Title:

**PAVEMENT
PLAN
SHEET 2**

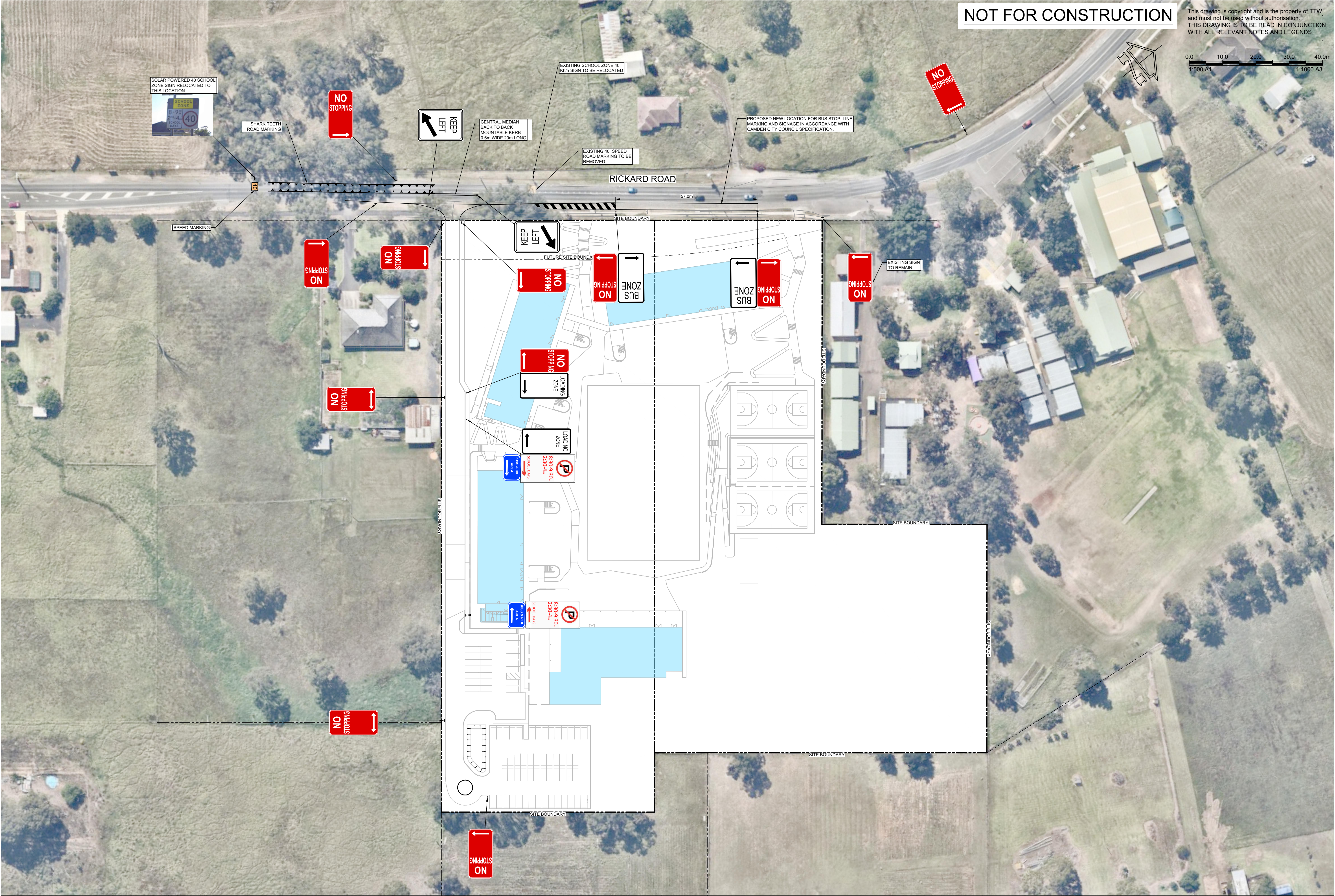
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250	RT	AW	CR		
Project No	Originator	Type	Role	Sheet No.	Rev
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15.01.2025 11:13 AM					



1. CONCRETE STRENGTH TO BE 32MPa
2. REFER SITE PLANS FOR SETOUT, LEVELS AND GEOMETRY
3. FOR MINIMUM SLIP RESISTANCE OF STAIR TREADS AND LANDINGS
REFER LANDSCAPE OR ARCHITECTURAL DOCUMENTATION



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Rev	Description	Eng Draft	Date	Rev	Description	Eng Draft	Date	Rev	Description	Eng Draft	Date
3	REF SUBMISSION	SF	RT 14.01.2025								
2	SCHEMATIC DESIGN FOR REF	SF	RT 13.12.2024								
1	FINAL DRAFT ISSUE FOR REF	SF	RT 21.11.2024								

Client:

 **School Infrastructure NSW**

Engineer:


www.ttwengineers.com

Project:

**NEW HIGH SCHOOL
FOR LEPPINGTON AND
DENHAM COURT
LEPPINGTON, NSW 2179**

Drawing Title:

**SIGNAGE AND LINEMARKING
PLAN**

Scale at A1

Drawn	Designed	Approved
RT	AW	CR

Project No

Originator

Type

Role

Sheet No.

Rev

LHS-TTW-01-00-DR-C-08101-3

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