NOT FOR CONSTRUCTION

GLEDSWOOD HILLS HIGH SCHOOL

LOT 2 DP1262720 GLEDSWOOD HILLS, NSW 2557

NUMBER	DRAWING TITLE
GENERAL-00000	
GHHS-TTW-01-00-DR-C-00001	GENERAL COVER SHEET
GHHS-TTW-01-00-DR-C-00003	GENERAL NOTES AND LEGEND SHEET 1
GHHS-TTW-01-00-DR-C-00100	OVERALL SITE PLAN
GHHS-TTW-01-00-DR-C-00401	GENERAL ARRANGEMENT PLAN SHEET 1
GHHS-TTW-01-00-DR-C-00402	GENERAL ARRANGEMENT PLAN SHEET 2
GHHS-TTW-01-00-DR-C-00403	GENERAL ARRANGEMENT PLAN SHEET 3
GHHS-TTW-01-00-DR-C-00404	GENERAL ARRANGEMENT PLAN SHEET 4
EROSION AND SEDIMENT CONTROL-02000	
GHHS-TTW-01-00-DR-C-02001	EROSION AND SEDIMENT CONTROL NOTES AND LEGEND SHEET 1
GHHS-TTW-01-00-DR-C-02101	EROSION AND SEDIMENT CONTROL PLAN
EARTHWORKS-03000	
GHHS-TTW-01-00-DR-C-03101	EARTHWORKS CUT AND FILL VOLUMES PLAN
STORMWATER-04000	
GHHS-TTW-01-00-DR-C-04001	STORMWATER NOTES AND LEGEND SHEET 1
GHHS-TTW-01-00-DR-C-04101	STORMWATER AND SUBSOIL DRAINAGE PLAN SHEET 1
GHHS-TTW-01-00-DR-C-04102	STORMWATER AND SUBSOIL DRAINAGE PLAN SHEET 2
GHHS-TTW-01-00-DR-C-04103	STORMWATER AND SUBSOIL DRAINAGE PLAN SHEET 3
GHHS-TTW-01-00-DR-C-04104	STORMWATER AND SUBSOIL DRAINAGE PLAN SHEET 4
GHHS-TTW-01-00-DR-C-04501	STORMWATER DETAILS SHEET 1
GHHS-TTW-01-00-DR-C-04502	STORMWATER DETAILS SHEET 2
PUBLIC DOMAIN WORKS-05000	
GHHS-TTW-01-00-DR-C-05001	PUBLIC DOMAIN SITE WORKS PLAN
RETAINING WALLS-06000	
GHHS-TTW-01-00-DR-C-06501	RETAINING WALL DETAILS
PAVEMENT-07000	
GHHS-TTW-01-00-DR-C-07001	PAVEMENT NOTES AND LEGEND
GHHS-TTW-01-00-DR-C-07101	PAVEMENT PLAN
GHHS-TTW-01-00-DR-C-07501	PAVEMENT DETAILS SHEET 1
GHHS-TTW-01-00-DR-C-07502	PAVEMENT DETAILS SHEET 2
GHHS-TTW-01-00-DR-C-07503	PAVEMENT DETAILS SHEET 3
SIGNAGE AND LINEMARKING-08000	
GHHS-TTW-01-00-DR-C-08101	SIGNAGE AND LINEMARKING PLAN

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Rev	Description	Eng Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF ES	17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF ES	21.11.2024

Client: NSW GOVERNMENT School Infrastructure NSW

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: GENERAL COVER SHEET

Scale at A1	Drawn	Designed	Approved
	ES		CR

Project No	Originator	Type	Role	Sheet No.	Rev
GHHS-TTW-01-00-DR-C-00001-2					

16.12.2024 3:08 PM

GENERAL

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 ENSURE THAT THE 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.

REFERENCE DRAWINGS

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.

CONSULTANT	DRAWING TITLE	DRAWING NUMBER	REVISION	DATE
DJRD	ARCH	GHHS-DJRD-00-00-DR-A-0101	A	15.11.2024
SDG	SURVEY		A	11.10.2023

BOUNDARIES AND EASEMENTS

1. THE PROPERTY BOUNDARY AND EASEMENT LOCATIONS SHOWN ON TAYLOR THOMSON WHITTING DRAWING'S HAVE BEEN BASED ON INFORMATION RECEIVED FROM : SURVEYOR
2. TAYLOR THOMSON WHITTING MAKES NO GUARANTEES THAT THE BOUNDARY OR EASEMENT INFORMATION SHOWN IS CORRECT. TAYLOR THOMSON 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.

SURVEY

ORIGIN OF LEVELS: SSM167763
DATUM OF LEVELS: AHD
COORDINATE SYSTEM: MGA2020
SURVEY PREPARED BY: CRAIG TURNER

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.

UNDERGROUND SERVICES - WARNING

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 NOTIFY 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 WHITTING PLANS DO NOT INDICATE THE PRESENCE OF ANY SURVEY MARK. THE CONTRACTOR IS TO UNDERTAKE THEIR OWN SEARCH.

BEFORE YOU DIG AUSTRALIA (BYDA)

1. PUBLIC SERVICE UTILITY INFORMATION SHOWN ON PLAN HAS BEEN COMPLIED FROM INFORMATION RECEIVED FROM DIAL BEFORE YOU DIG INQUIRY, REFERENCE NUMBER No. 37862101 OBTAINED ON 21.10.2024 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."

SITE WORKS

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

PUBLIC DOMAIN WORKS

1. PUBLIC DOMAIN WORKS ARE NOT TO COMMENCE UNTIL THESE DRAWINGS ARE STAMPED AS APPROVED.

TENDER DOCUMENTATION

1. THESE DRAWINGS ARE PRELIMINARY DRAWINGS ISSUED FOR TENDER AS AN INDICATION OF THE EXTENT OF WORKS ONLY. THEY ARE NOT A COMPLETE CONSTRUCTION SET OF DRAWINGS.
2. TO DETERMINE THE FULL EXTENT OF WORK, THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS AND OTHER CONTRACT DOCUMENTS. ALLOW FOR ALL ITEMS SHOWN ON ARCHITECTURAL AND OTHER DRAWINGS AS NOT ALL ITEMS ARE SHOWN ON THE STRUCTURAL/CIVIL WORKS DRAWINGS.
3. SHOULD ANY AMBIGUITY, ERROR, OMISSIONS, DISCREPANCY, INCONSISTENCY OR OTHER FAULT EXIST OR SEEM TO EXIST IN THE DOCUMENTS, IMMEDIATELY NOTIFY IN WRITING TO THE SUPERINTENDENT.
4. RATES SHOWN ON THE DRAWINGS ARE FOR THE FINAL STRUCTURE/CIVIL WORKS IN PLACE AND DO NOT ALLOW FOR ANY WASTAGE, ROLLING MARGINS, OVER SUPPLY OR FABRICATION REQUIREMENTS. ETC.

DESIGN AND CONSTRUCT DOCUMENTATION

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, CONFIRM COMPLIANCE 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.

SAFETY IN DESIGN

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

1. 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 PRACTICABLY 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 PRACTICABLY 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
   - PSM
   - SCHOFIELDS TALLAWONG HIGH SCHOOL SITE 1 GUNTAWING ROAD GEOTECHNICAL INVESTIGATION (REF PSM4693-012L) DATED 21 OCTOBER 2024)
   - JBS&G
   - DETAILED SITE INVESTIGATION REPORT, PROPOSED TALLAWONG HIGH SCHOOL (REF 67774/ 162496 DATED 1 OCTOBER
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
   - JBS&G
   - REMEDIAL ACTION PLAN, PROPOSED TALLAWONG HIGH SCHOOL (REF 67774/162922) DATED 1 OCTOBER 2024
   - LONG TERM ENVIRONMENTAL MANAGEMENT PLAN, PROPOSED TALLAWONG HIGH SCHOOL (REF 67774 /162926 DATED 1 OCTOBER 2024
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.

NOT FOR CONSTRUCTION

CIVIL INSPECTION CERTIFICATES

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. 2.WRITTEN CONFIRMATION FROM THE CONTRACTOR THAT ALL CIVIL SITE INSPECTION REPORTS HAVE BEEN CLOSED OUT.
3. 3.CCTV (INCLUDING WINCAN LOG OR EQUIVALENT) OF ALL CIVIL STORMWATER WORKS TO BE CERTIFIED.
4. 4.WAE FROM A REGISTERED SURVEYOR (PDF & DWG) FOR ALL CIVIL STORMWATER TO BE CERTIFIED.
5. 5.WAE FROM A REGISTERED SURVEYOR (PDF, DWG & 3D TIN) FOR ALL EXTERNAL CIVIL LEVELS TO BE CERTIFIED.
6. 6.HEAD CONTRACTORS STATEMENT OF CONSTRUCTION COMPLIANCE.
7. 7.HYDRAULIC CONTRACTORS INSTALLATION CERTIFICATE.
8. 8.3RD PARTY INSTALLATION CERTIFICATES FOR PROPRIETARY PRODUCTS AND/OR D&C ELEMENTS.
9. 9.COMPACTION TEST RESULTS IN ACCORDANCE WITH THE CIVIL SPECIFICATION.
10. 10.MATERIALS CERTIFICATES PRIOR TO INSTALLATION IN ACCORDANCE WITH THE CIVIL SPECIFICATION.
11. 11.WRITTEN CONFIRMATION FROM TFNSW AND/OR COUNCIL CONFIRMING COMPLETION AND ACCEPTANCE OF S138 WORKS IF APPLICABLE.

BOUNDARIES

EXISTING	REMOVED	PROPOSED	
			BLOCK BOUNDARY

BUILDINGS

EXISTING	REMOVED	PROPOSED	
			BUILDING ENVELOPE
			FUTURE BUILDING ENVELOPE

LANDSCAPE

- EXISTING TREES TO BE REMOVED
- TREE PROTECTION ZONE
- STRUCTURAL ROOT ZONE

EXISTING SERVICES

- STORMWATER (cSW Ø150)
- ELECTRICAL (cLV)
- GAS (cG Ø50)
- TELECOMMUNICATIONS (cCOMM)
- SEWER (cS Ø150)
- WATER (cW Ø150)
- SERVICE TO BE DEMOLISHED

CLASSIFICATION OF EXISTING UTILITY INFORMATION

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).

NOTE

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.

Rev	Description	Eng Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF ES	17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF ES	21.11.2024

Client: NSW GOVERNMENT School Infrastructure NSW

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: GENERAL NOTES AND LEGEND SHEET 1

Scale at A1	Drawn	Designed	Approved
	ES		CR

Project No | Originator | Type | Role | Sheet No. | Rev
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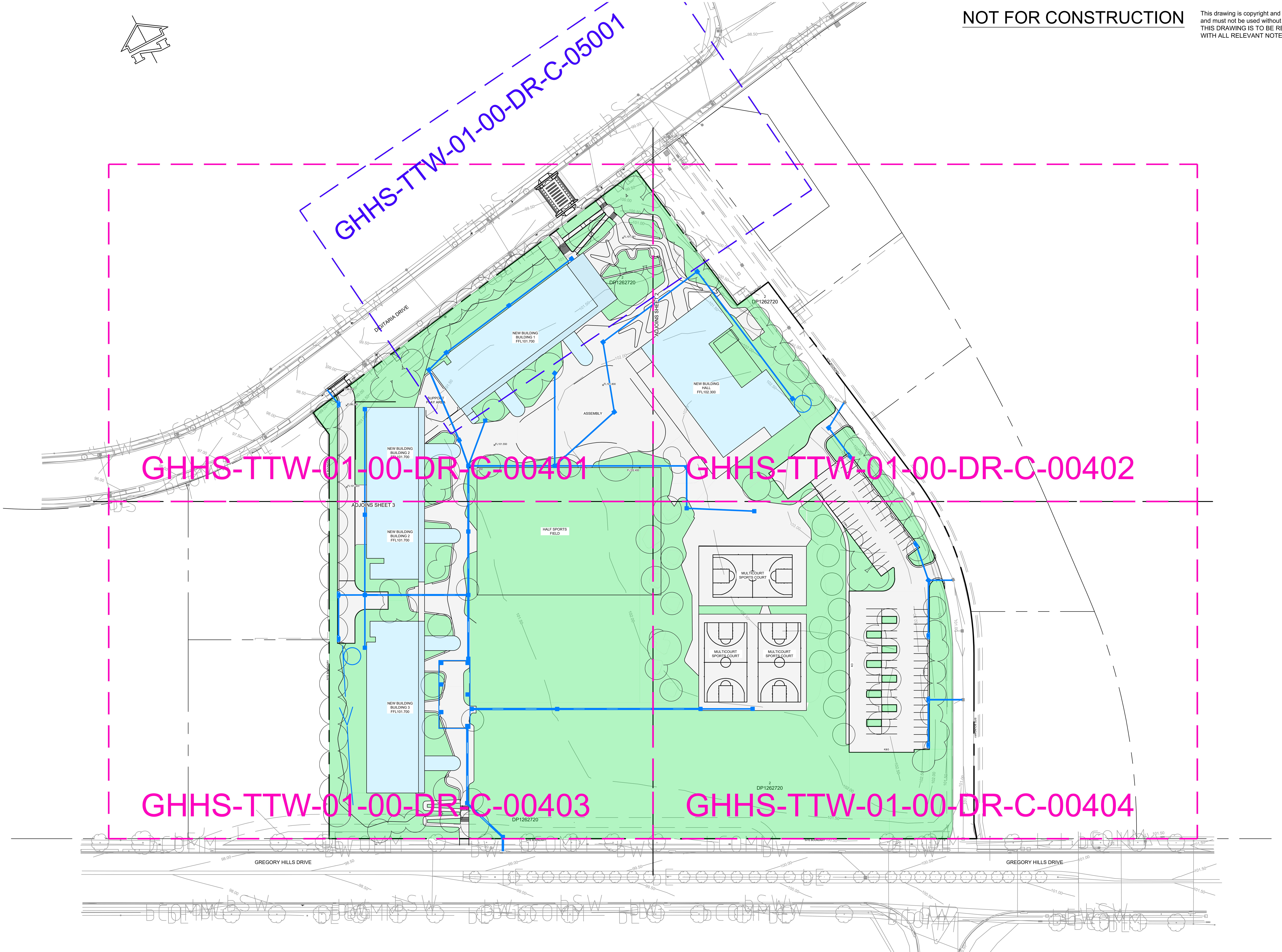
THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES AND LEGENDS



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Rev	Description	Eng	Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF	ES	17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF	ES	21.11.2024

Client: NSW GOVERNMENT School Infrastructure NSW

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: OVERALL SITE PLAN

Scale at A1	Drawn	Designed	Approved
	ES		CR

Project No / Originator / Type / Role / Sheet No. / Rev

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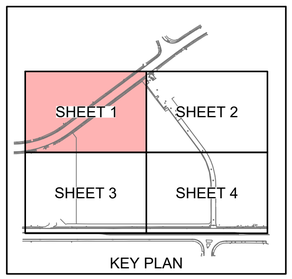

PROVIDE PATH CONNECTION. REFER 07000 SERIES DRAWINGS (TYPICAL)

NEW RAISED PEDESTRIAN CROSSING. REFER 07000 SERIES DRAWINGS (TYPICAL)

PROPOSED TREE. REFER LANDSCAPE ARCHITECT'S DOCUMENTATION (TYPICAL)

NEW RETAINING WALLS. ≈ 1000mm HIGH

EXISTING TREE TO BE RETAINED (TYPICAL)

NEW SIGNAGE. REFER 08000 SERIES DRAWINGS (TYPICAL)

DIGITARIA DRIVE

PROPOSED ENTRY/EXIT DRIVEWAY. REFER 07000 SERIES DRAWINGS (TYPICAL)

SITE BOUNDARY

NEW BUILDING
BUILDING 1
FFL101.700

PROPOSED STORMWATER NETWORK. REFER 04000 SERIES DRAWINGS (TYPICAL)

FL101.581

2
DP1262720

FL101.800

FL99.064

FL99.200

SUPPORT PLAY AREA

ASSEMBLY

NEW KERB. REFER 07000 SERIES DRAWINGS (TYPICAL)

NEW RETAINING WALL. ≈ 1800mm HIGH

PROPOSED SOFT LANDSCAPING ZONE (TYPICAL)

NEW BUILDING
BUILDING 2
FFL101.700

FL101.550

FL101.550

FL102.400

SITE BOUNDARY

BUILDING OUTLINE EXTENT. REFER ARCHITECTURAL DOCUMENTATION (TYPICAL)

FL101.323

ADJOINS SHEET 3

ADJOINS SHEET 2

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Rev	Description	Eng Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF ES	17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF ES	21.11.2024

Client: School Infrastructure NSW

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: GENERAL ARRANGEMENT PLAN SHEET 1

Scale at A1	Drawn	Designed	Approved
250	ES		CR

Project No	Originator	Type	Role	Sheet No.	Rev
GHHS-TTW-01-00-DR-C-00401-2					

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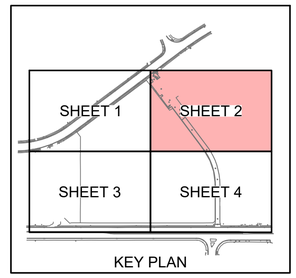

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1:250 A1 1:500 A3

ADJOINS SHEET 1

SITE BOUNDARY

2
DP1262720

NEW BUILDING
HALL
FFL102.300

EXISTING EASEMENT TO BE RETAINED (TYPICAL)

BUILDING OUTLINE EXTENT. REFER ARCHITECTURAL DOCUMENTATION (TYPICAL)

NEW KERB. REFER 07000 SERIES DRAWINGS (TYPICAL)

PROPOSED STORMWATER NETWORK. REFER 04000 SERIES DRAWINGS (TYPICAL)

PROPOSED TREE. REFER LANDSCAPE ARCHITECT'S DOCUMENTATION (TYPICAL)

EXISTING ACCESS LANE TO BE RETAINED

PROPOSED CAR PARK

PROPOSED SOFT LANDSCAPING ZONE (TYPICAL)

FL102.209
FL102.100
FL102.100
FL102.400
KO

ADJOINS SHEET 4

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Rev	Description	Eng Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF ES	17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF ES	21.11.2024

Client: School Infrastructure NSW

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: GENERAL ARRANGEMENT PLAN SHEET 2

Scale at A1	Drawn	Designed	Approved
250	ES		CR

Project No	Originator	Type	Role	Sheet No.	Rev
GHHS-TTW-01-00-DR-C-00402-2					

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

Rev	Description	Eng	Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF	ES	17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF	ES	21.11.2024

Client:

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: GENERAL ARRANGEMENT PLAN SHEET 3

Scale at A1	Drawn	Designed	Approved
250	ES		CR

Project No / Originator / Type / Role / Sheet No. / Rev

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ADJOINS SHEET 2

ADJOINS SHEET 3

FL102.554
FL103.500
FL103.700
FL103.32
FL103.70
MULTICOURT SPORTS COURT
MULTICOURT SPORTS COURT
MULTICOURT SPORTS COURT
FL102.74
FL103.12
FL102.550
FL102.750
FL102.500
FL103.100
FL103.900
FL102.800
FL102.600
K&G
KO
2.0
3.5
2
DP1262720
SITE BOUNDARY
GREGORY HILLS DRIVE

NEW RETAINING WALL. ≈ 800mm HIGH

PROPOSED STORMWATER NETWORK. REFER 04000 SERIES DRAWINGS (TYPICAL)

PROPOSED CAR PARK

PROPOSED TREE. REFER LANDSCAPE ARCHITECT'S DOCUMENTATION (TYPICAL)

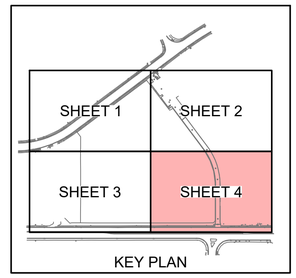
NEW KERB. REFER 07000 SERIES DRAWINGS (TYPICAL)

EXISTING EASEMENT TO BE RETAINED (TYPICAL)

EXISTING ACCESS LANE TO BE RETAINED

PROPOSED SOFT LANDSCAPING ZONE (TYPICAL)

EXISTING EASEMENT TO BE RETAINED (TYPICAL)
(RIGHT OF CARRIAGEWAY)



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Rev	Description	Eng Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF ES	17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF ES	21.11.2024

Client: NSW GOVERNMENT School Infrastructure NSW

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: GENERAL ARRANGEMENT PLAN SHEET 4

Scale at A1	Drawn	Designed	Approved
250	ES		CR

Project No	Originator	Type	Role	Sheet No.	Rev
GHHS-TTW-01-00-DR-C-00404-2					

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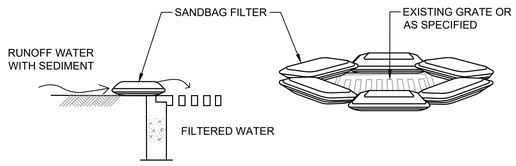
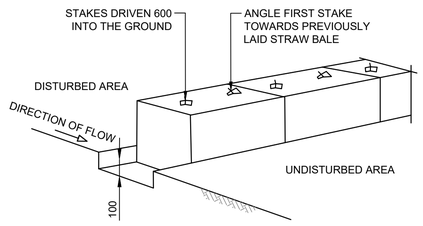
EROSION AND SEDIMENT CONTROL PUMP OUT NOTES

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.

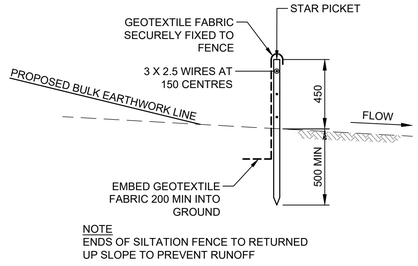


SANDBAG KERB SEDIMENT TRAP
NTS



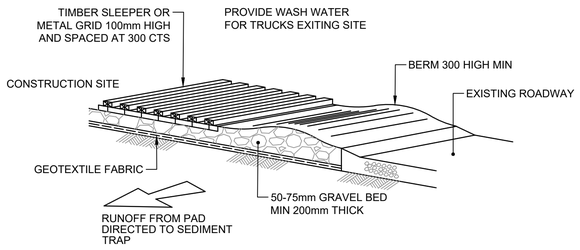
HAY BALE SEDIMENT FILTER
NTS

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

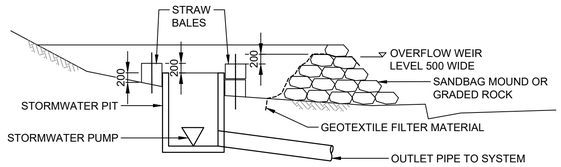


NOTE
ENDS OF SILTATION FENCE TO RETURNED UP SLOPE TO PREVENT RUNOFF

SILTATION FENCE DETAIL
SCALE 1:20



TEMPORARY CONSTRUCTION VEHICLE EXIT
NTS



SEDIMENTATION TRAP
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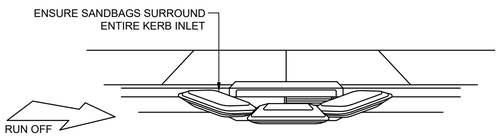
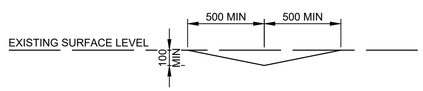


SANDBAG KERB INLET SEDIMENT TRAP
NTS



TYPICAL SECTION THROUGH CATCH DRAIN
SCALE 1:20

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Rev	Description	Eng Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF	ES 17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF	ES 21.11.2024

Client: NSW GOVERNMENT School Infrastructure NSW

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: EROSION AND SEDIMENT CONTROL NOTES AND LEGEND SHEET 1

Scale at A1	Drawn	Designed	Approved
	ES		CR

Project No	Originator	Type	Role	Sheet No.	Rev
GHHS-TTW-01-00-DR-C-02001-2					

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0.0 10.0 20.0 30.0 40.0m
1:500 A1 1:1000 A3

PROVIDE CATCH DRAIN (TYP). REFER DETAILS

PROVIDE HAY BALE SEDIMENT FILTER (TYP). REFER DETAILS

DIGITARIA DRIVE

SITE BOUNDARY

SANDBAG KERB SEDIMENT TRAP (TYP). REFER DETAILS

SITE ACCESS GATES TO SWING INTO SITE (TYP). REFER DETAILS

TEMPORARY CONSTRUCTION VEHICLE EXIT (TYP). REFER DETAILS

PROVIDE SILTATION FENCE (TYP). REFER DETAILS

PROVIDE SEDIMENTATION TRAP (TYP) REFER DETAILS LOCATION SHOWN INDICATIVELY

SEDIMENT POND
690m^3

SETTLING ZONE 651m^3

PROVIDE SANDBAG KERB INLET SEDIMENT TRAP (TYP). REFER DETAILS

GREGORY HILLS DRIVE

GREGORY HILLS DRIVE

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Rev	Description	Eng Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF ES	17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF ES	21.11.2024

Client: NSW GOVERNMENT School Infrastructure NSW

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: EROSION AND SEDIMENT CONTROL PLAN

Scale at A1	Drawn	Designed	Approved
500	ES		CR

Project No	Originator	Type	Role	Sheet No.	Rev
GHHS-TTW-01-00-DR-C-02101-2					

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Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
CUT AND FILL	**1.000**	**1.000**	26493.87sq.m	2868.99 Cu. M.	5244.39 Cu. M.	2375.39 Cu. M.<Fill>

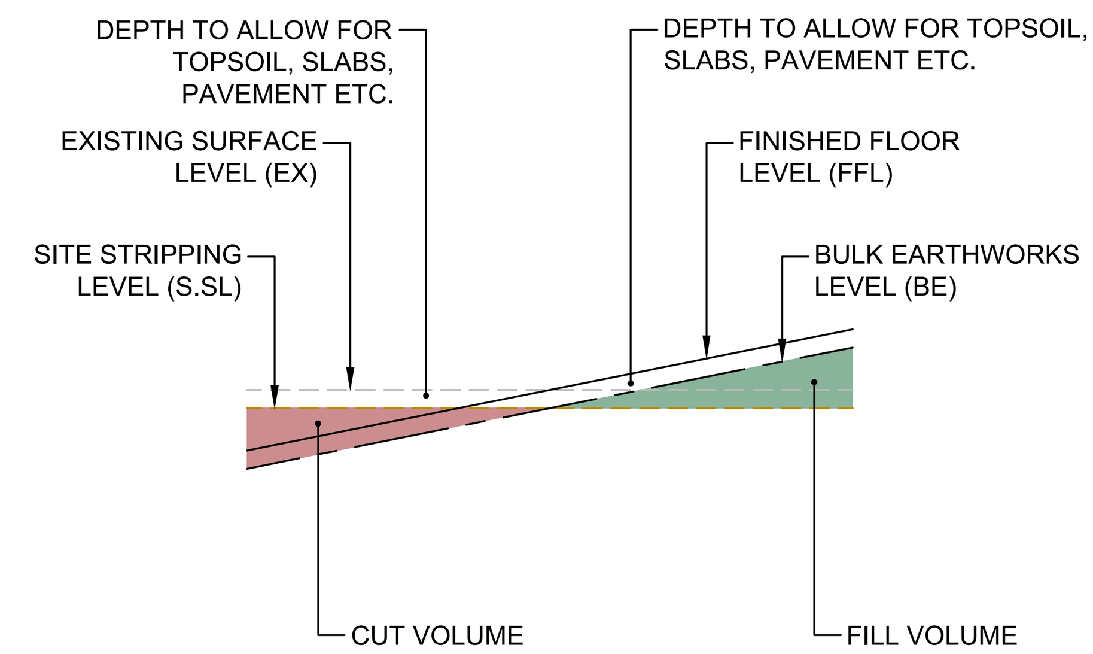
NOT FOR CONSTRUCTION

BULK EARTHWORKS NOTES

1. All bulk earthworks setout from grid lines U.N.O.
2. All batters at a slope of 2 (H) : 1 (V) U.N.O.
3. 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.
4. 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%

5. 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.
6. Contractor shall place safety barriers around excavations in accordance with relevant safety regulations.
7. For interpretation of bulk earthworks foot print line shown on the bulk earthworks drawings refer to the bulk earthworks construction legend.
8. Bulk earthwork drawings are not to be used for detailed excavation.
9. Refer to Geotechnical Report
10. Detailed earthworks such as piling, pile caps, ground beams, lift pits, service trenching & landscape mounding etc is excluded.
11. The following allowances have been adopted in the bulk earthworks quantity calculations:
    Site stripping level = 150mm below existing surface level, and site strip volume is 3974m^3.
12. Bulk earthworks does not consider detailed excavation including excavation for footings, beams, services trenching and slab falls. No allowance for bulking factors made
13. Contractor to locate all existing services prior to commencement of work
14. Contractor to make their own assessment of cut and fill volumes
15. All bulk earthworks in accordance with AS3798-2007 Guidelines on earthworks for commercial and residential development.



EARTHWORKS TYPICAL SECTION

ASSUMED SETDOWNS

ROAD PAVEMENT	BUILDING SLABS	EXTERNAL PAVEMENT	LANDSCAPE
400mm	400mm	250mm	150mm

LEVELS TABLE

No.	FROM LEVEL (m)	TO LEVEL (m)	COLOUR
1	-3.00	-2.50	
2	-2.50	-2.00	
3	-2.00	-1.50	
4	-1.50	-1.00	
5	-1.00	-0.50	
6	-0.50	0.00	
7	0.00	0.50	
8	0.50	1.00	
9	1.00	1.50	
10	1.50	2.00	

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Rev	Description	Eng	Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF	ES	17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF	ES	21.11.2024

Client:

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: EARTHWORKS CUT AND FILL VOLUMES PLAN

Scale at A1	Drawn	Designed	Approved
500	ES		CR

Project No / Originator / Type / Role / Sheet No. / Rev: GHHS-TTW-01-00-DR-C-03101-2

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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 = 235mm/hr
   - 5% AEP = 177mm/hr

   (C) RAINFALL LOSSES: -
   - IMPERVIOUS AREAS: IL = 1.5mm CL = 0mm/hr
   - PERVIOUS AREAS: IL = 28mm CL = 1.2mm/hr

2. PIPES 300 DIA AND LARGER TO BE REINFORCED CONCRETE CLASS "4" 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

USIL	UPSTREAM INVERT LEVEL
Ø000	PIPE INTERNAL DIAMETER
--- '-'	PIPE MATERIAL AND CLASS
0.0m	PIPE LENGTH
0.0 m/s	HYDRAULIC FLOW RATE
%0.0	PIPE GRADE
DSIL	DOWNSTREAM INVERT LEVEL

TIE INFORMATION

SW	
L 10.0m	TIE LENGTH
D 1.0m	TIE DEPTH
Ø150	TIE DIAMETER

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

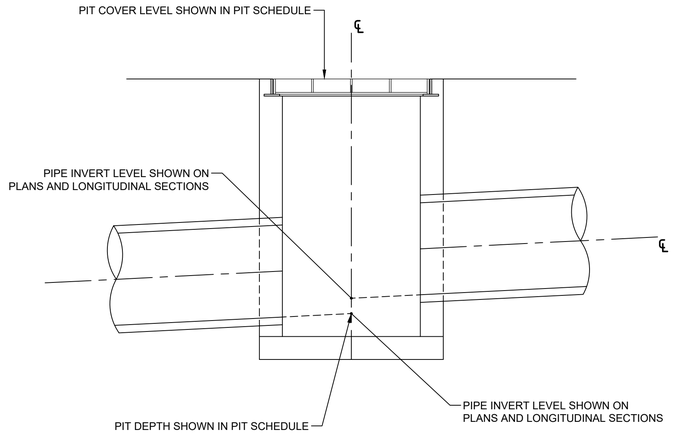
	STORMWATER PIPE
DP	DOWN PIPE
RP	RODDING POINT
PO	PLANTER OUTLET
RO	RAINWATER OUTLET
GPT	GROSS POLLUTANT TRAP
	OVERLAND FLOW ARROW
	CONCRETE INCASED PIPE
	SWALE DRAIN

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



DESIGN INVERT LEVELS AT STORMWATER STRUCTURES
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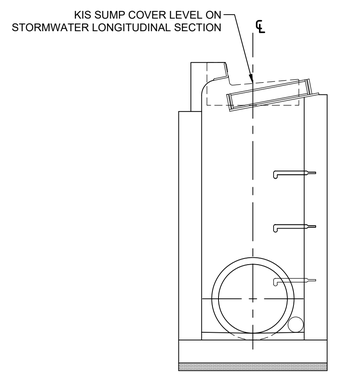
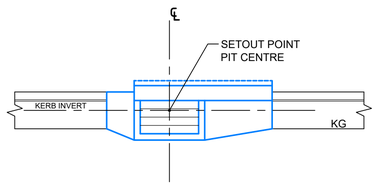
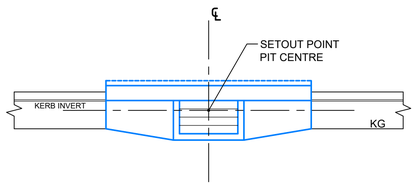


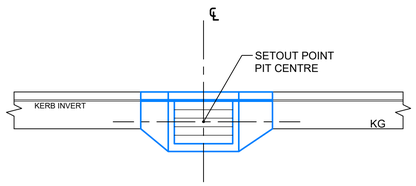
KERB INLET STRUCTURE (KIS) COVER LEVEL FOR KIS IN ROAD
SCALE 1:20



KERB INLET SUMP (KIS) ON GRADE
SCALE 1:50



KERB INLET SUMP (KIS) IN SAG
SCALE 1:50



KERB GRATED INLET SUMP (KGI)
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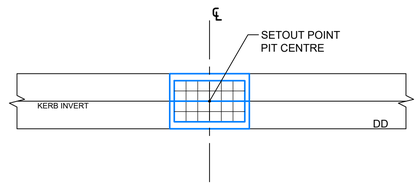

DISH DRAIN GRATED INLET SUMP (DDI)
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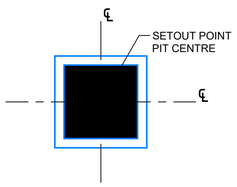
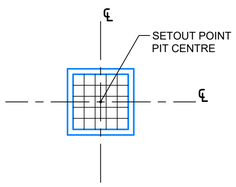


JUNCTION PIT
SCALE 1:50



GRATED INLET SUMP
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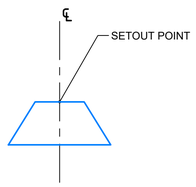

HEADWALL
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Rev	Description	Eng Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF ES	17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF ES	21.11.2024

Client: NSW GOVERNMENT School Infrastructure NSW

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: STORMWATER NOTES AND LEGEND SHEET 1

Scale at A1	Drawn	Designed	Approved
	ES		CR

Project No	Originator	Type	Role	Sheet No.	Rev
GHHS-TTW-01-00-DR-C-04001-2					

16.12.2024 3:24 PM

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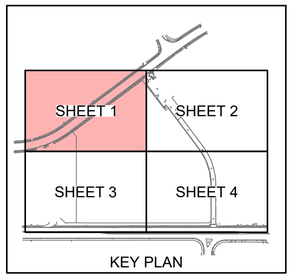

NOTE:

1. SUBSOIL TO BE PROVIDED BEHIND ALL RETAINING WALLS, KERBS, PAVEMENT EDGES AND WITHIN THE SPORTS FIELD. LAYOUT TO BE CONFIRMED IN DETAILED DESIGN

2. ALL INLET PITS TO BE INSTALLED WITH OCEANPROTECT OCEANGUARD OR APPROVED EQUIVALENT

NOT FOR CONSTRUCTION

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

PROVIDE STORMWATER DISCARGE POINT IN KERB IN ACCORDANCE WITH CAMDEN CITY COUNCIL STANDARDS

COUNCIL STANDARD KERB ADAPTOR DISCHARGING TO INVERT OF GUTTER

PROPOSED KIS SUMP (TYPICAL)

BUILDING OUTLINE EXTENT. REFER ARCHITECTURAL DOCUMENTATION (TYPICAL)

DIGITARIA DRIVE

SITE BOUNDARY

NEW BUILDING
BUILDING 1
FFL101.700

NEW BUILDING
BUILDING 2
FFL101.700

PROPOSED GRATED INLET PIT (TYPICAL)

SUPPORT PLAY AREA

ASSEMBLY

2
DP1262720

Ø225 uPVC
Ø300 uPVC
Ø450 uPVC
Ø225 RCP
bSW ø375

ADJOINS SHEET 2

ADJOINS SHEET 3

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Rev	Description	Eng Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF ES	17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF ES	21.11.2024

Client:

Engineer:
TTW
www.ttwengineers.com

Project:
GLEDSWOOD HILLS
HIGH SCHOOL
LOT 2 DP1262720

Drawing Title:
STORMWATER
AND SUBSOIL DRAINAGE
PLAN SHEET 1

Scale at A1	Drawn	Designed	Approved
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Project No	Originator	Type	Role	Sheet No.	Rev
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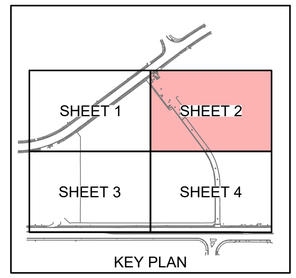

KEY PLAN

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NOTE:

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

ADJOINS SHEET 1

SITE BOUNDARY

2
DP1262720

SITE BOUNDARY

SITE BOUNDARY

NEW BUILDING
HALL
FFL102.300

Ø225 uPVC

Ø225 uPVC

Ø225 uPVC

EXISTING EASEMENT TO BE RETAINED (TYPICAL)

BUILDING OUTLINE EXTENT. REFER ARCHITECTURAL DOCUMENTATION (TYPICAL)

PROPOSED RAINWATER TANK (TYPICAL)

CONNECT TO EXISTING STORMWATER PIT. MAKE GOOD CONNECTION

Ø225 RCP

PROPOSED GRATED INLET PIT (TYPICAL)

PROVIDE BIORETENTION RAIN GARDEN. 15m² MINIMUM TREATMENT AREA

PROPOSED KIS SUMP (TYPICAL)

Ø225 RCP

FL102.10

KO

FL102.10

FL102.30

FL102.40

FL102.70

ADJOINS SHEET 4

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Rev	Description	Eng Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF ES	17.12.2024
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Client: School Infrastructure NSW

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: STORMWATER AND SUBSOIL DRAINAGE PLAN SHEET 2

Scale at A1	Drawn	Designed	Approved
250	ES		CR

Project No	Originator	Type	Role	Sheet No.	Rev
GHHS-TTW-01-00-DR-C-04102-2					

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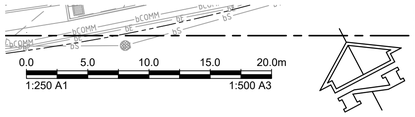

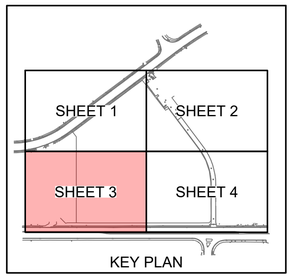

NOTE:

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

ADJOINS SHEET 1

NEW BUILDING
BUILDING 2
FFL101.700

HALF SPORTS FIELD

NEW BUILDING
BUILDING 3
FFL101.700

Ø225 RCP
Ø375 RCP
Ø450 uPVC
Ø525 uPVC

PROPOSED KIS SUMP (TYPICAL)

PROPOSED RAINWATER TANK (TYPICAL)

INGROUND OSD TANK WITH EFFECTIVE 600m³ VOLUME. IL98.60. TOP OF TANK 101.20. OSD ACCESS POINTS SHOWN INDICATIVELY. PROVIDE 20 x OCEANPROTECT 690mm PSORB STORMFILTER CARTRIDGES OR APPROVED EQUIVALENT INTERNAL TO TANK

BUILDING OUTLINE EXTENT. REFER ARCHITECTURAL DOCUMENTATION (TYPICAL)

PROPOSED GRATED INLET PIT (TYPICAL)

SITE BOUNDARY

EXISTING EASEMENT TO BE RETAINED (TYPICAL) (RIGHT OF CARRIAGEWAY)

2
DP1262720

3.5

IL97.07

CONNECT TO EXISTING STORMWATER PIT. MAKE GOOD CONNECTION

GREGORY HILLS DRIVE

ADJOINS SHEET 4

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Rev	Description	Eng Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF ES	17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF ES	21.11.2024

Client: NSW GOVERNMENT School Infrastructure NSW

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: STORMWATER AND SUBSOIL DRAINAGE PLAN SHEET 3

Scale at A1	Drawn	Designed	Approved
250	ES		CR

Project No	Originator	Type	Role	Sheet No.	Rev
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ADJOINS SHEET 2

ADJOINS SHEET 3

MULTICOURT SPORTS COURT

MULTICOURT SPORTS COURT

MULTICOURT SPORTS COURT

Ø225 uPVC

Ø225 uPVC

FL102.40

FL102.90

FL102.80

FL102.75

FL102.50

FL103.60

FL102.70

FL102.70

FL102.70

FL102.55

FL102.60

FL102.70

FL102.70

FL103.40

FL103.40

FL102.50

K&G

K&G

K&G

KO

Ø225 RCP

Ø225 RCP

Ø225 RCP

Ø300 RCP

Ø300 RCP

PROPOSED KIS SUMP (TYPICAL)

PROVIDE BIORETENTION RAIN GARDEN. 15m² MINIMUM TREATMENT AREA

PROPOSED GRATED INLET PIT (TYPICAL)

CONNECT TO EXISTING STORMWATER PIT. MAKE GOOD CONNECTION

EXISTING EASEMENT TO BE RETAINED (TYPICAL)

CONNECT TO EXISTING STORMWATER PIT. MAKE GOOD CONNECTION

PROVIDE BIORETENTION RAIN GARDEN. 20m² MINIMUM TREATMENT AREA

EXISTING EASEMENT TO BE RETAINED (TYPICAL) (RIGHT OF CARRIAGEWAY)

2.0

3.5

SITE BOUNDARY

SITE BOUNDARY

2
DP1262720

GREGORY HILLS DRIVE

bSW Ø375

bSW Ø300

bSW Ø225

bSW Ø525

bCOMM

bE

bW

SHEET 1 | SHEET 2 | SHEET 3 | SHEET 4

KEY PLAN

0.0 5.0 10.0 15.0 20.0m
1:250 A1 1:500 A3

NOTE:

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

Rev	Description	Eng Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF ES	17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF ES	21.11.2024

Client: NSW GOVERNMENT School Infrastructure NSW

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: STORMWATER AND SUBSOIL DRAINAGE PLAN SHEET 4

Scale at A1	Drawn	Designed	Approved
250	ES		CR

Project No	Originator	Type	Role	Sheet No.	Rev
GHHS-TTW-01-00-DR-C-04104-2					

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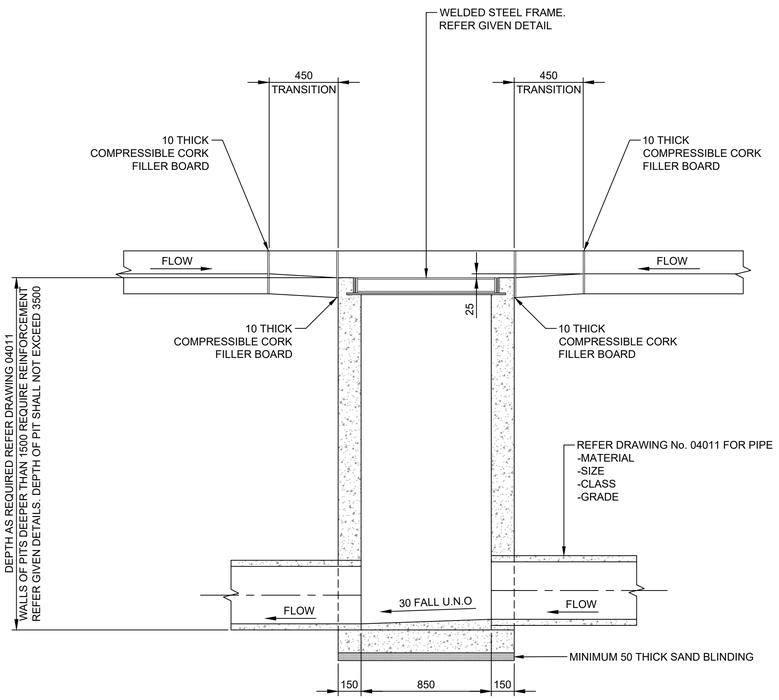
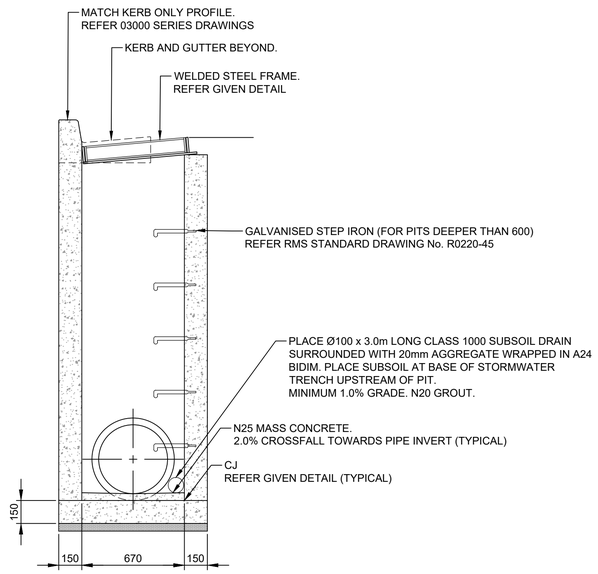


SECTION 1
SCALE 1:20



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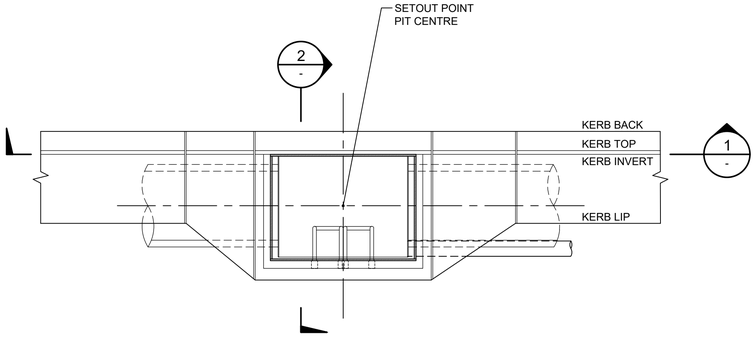
SCALE 1:20



KERB GRATED INLET PIT (KGIS)
FOR PIPES UP TO Ø450

SCALE 1:20

0 400 800 1200 1600mm
1:20 A1 1:40 A3

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Rev	Description	Eng Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF ES	17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF ES	21.11.2024

Client: School Infrastructure NSW

Engineer: TTW www.ttwengineers.com

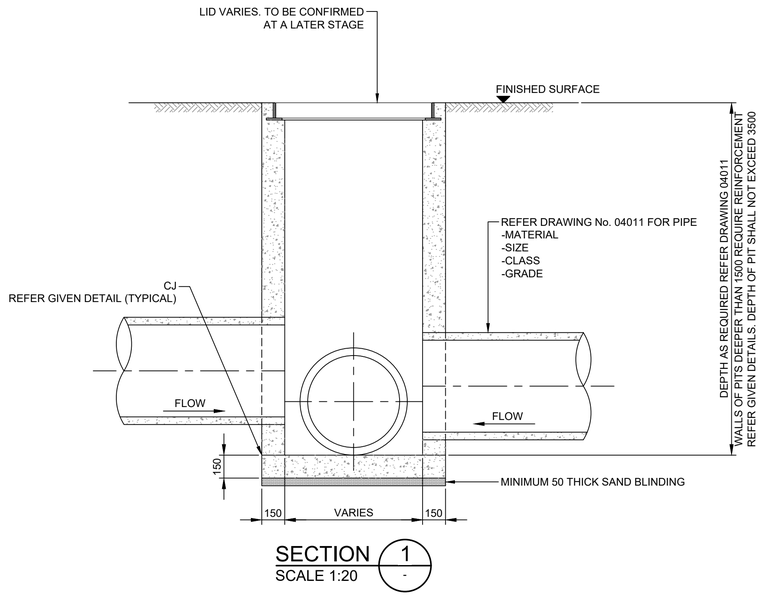
Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: STORMWATER DETAILS SHEET 1

Scale at A1	Drawn	Designed	Approved
250	ES		CR

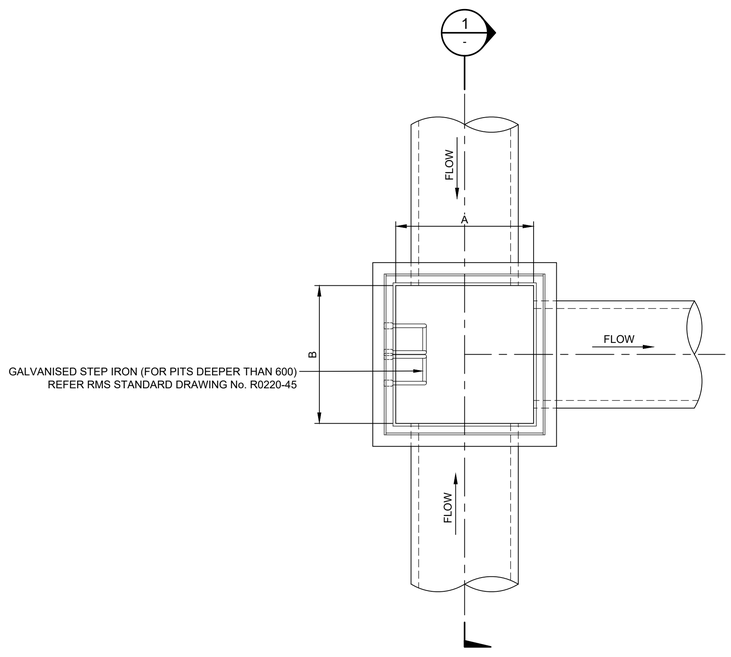
Project No	Originator	Type	Role	Sheet No.	Rev
GHHS-TTW-01-00-DR-C-04501-2					

16.12.2024 3:31 PM



SECTION 1/-
SCALE 1:20

SIZE REQUIREMENTS	
GOVERNED BY MAXIMUM PIPE DIAMETER	
PIPE Ø	A, B
300	600
600	900
900	1200
1200	1600



JUNCTION PIT (JP)
FOR PIPES UP TO Ø900
SCALE 1:20

NOTES
1. CONCRETE STRENGTH 25MPa.
2. SIDE WALLS OF PITS DEEPER THAN 1500 ARE TO BE REINFORCED IN ACCORDANCE WITH GIVEN DETAIL.
3. STEP IRONS ARE REQUIRED WHERE PITS ARE DEEPER THAN 1200.
4. REFER DRAWING No. 00002 FOR CONCRETE NOTES

0 400 800 1200 1600mm
1:20 A1 1:40 A3

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Rev	Description	Eng Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF ES	17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF ES	21.11.2024

Client: School Infrastructure NSW
Engineer: TTW www.ttwengineers.com
Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720
Drawing Title: STORMWATER DETAILS SHEET 2

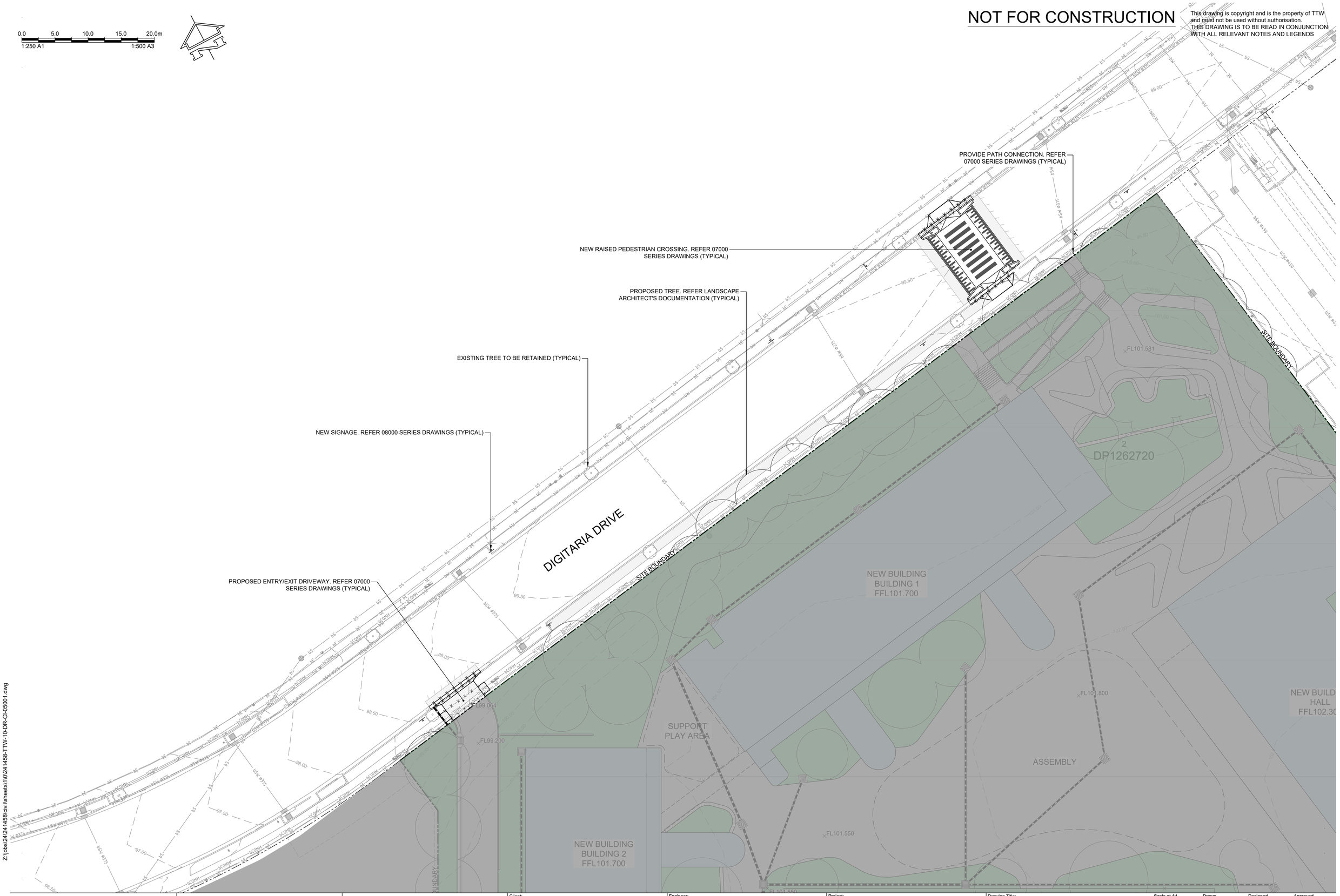
Scale at A1	Drawn	Designed	Approved
250	ES		CR

Project No	Originator	Type	Role	Sheet No.	Rev
GHHS-TTW-01-00-DR-C-04502-2					

16.12.2024 3:31 PM

0.0 5.0 10.0 15.0 20.0m
1:250 A1 1:500 A3

NOT FOR CONSTRUCTION



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Rev	Description	Eng	Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF	ES	17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF	ES	21.11.2024

Client:

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: PUBLIC DOMIAN SITEWORKS PLAN

Scale at A1	Drawn	Designed	Approved
	ES		CR

Project No	Originator	Type	Role	Sheet No.	Rev
GHHS-TTW-01-00-DR-C-05001-2					

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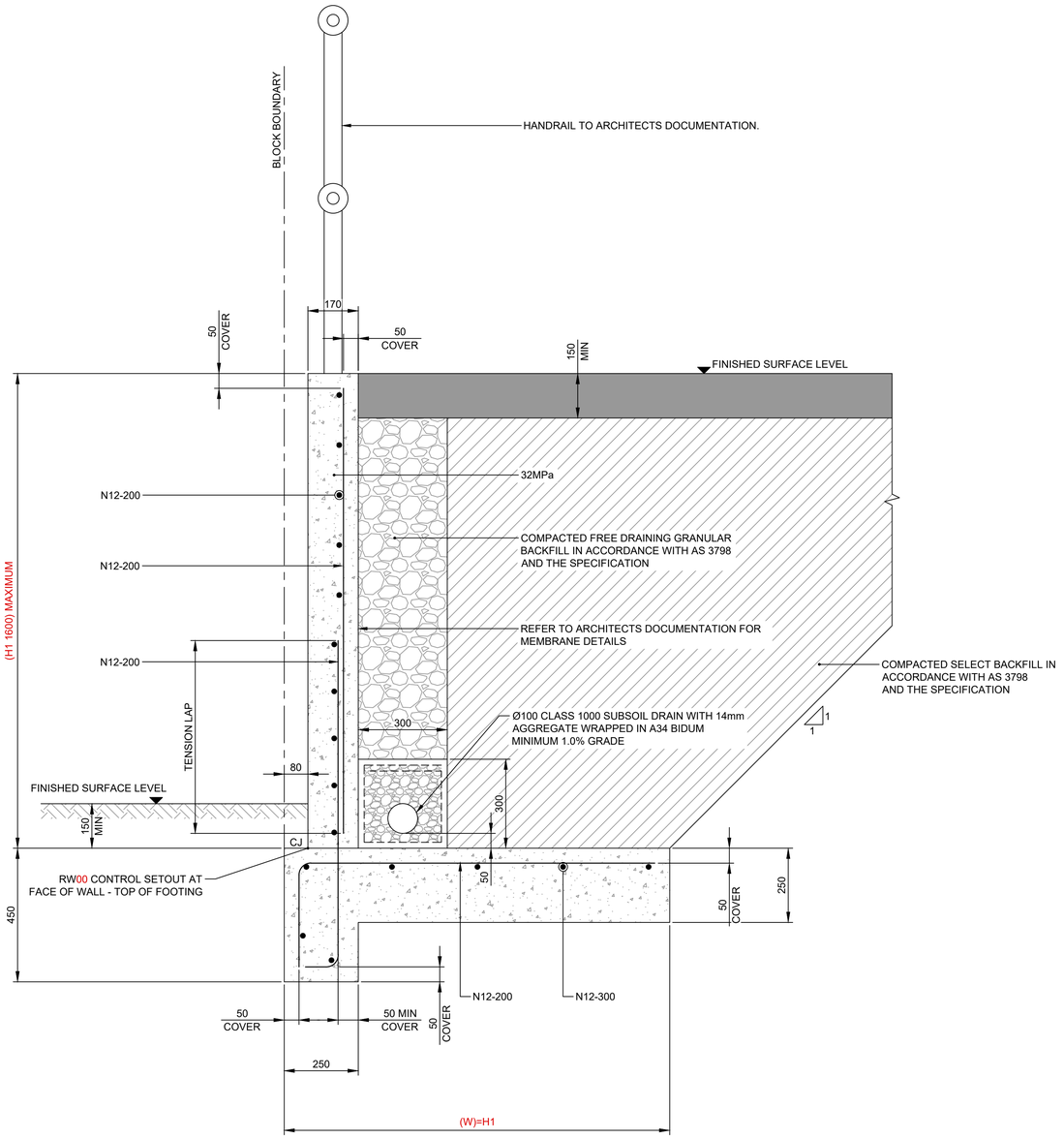
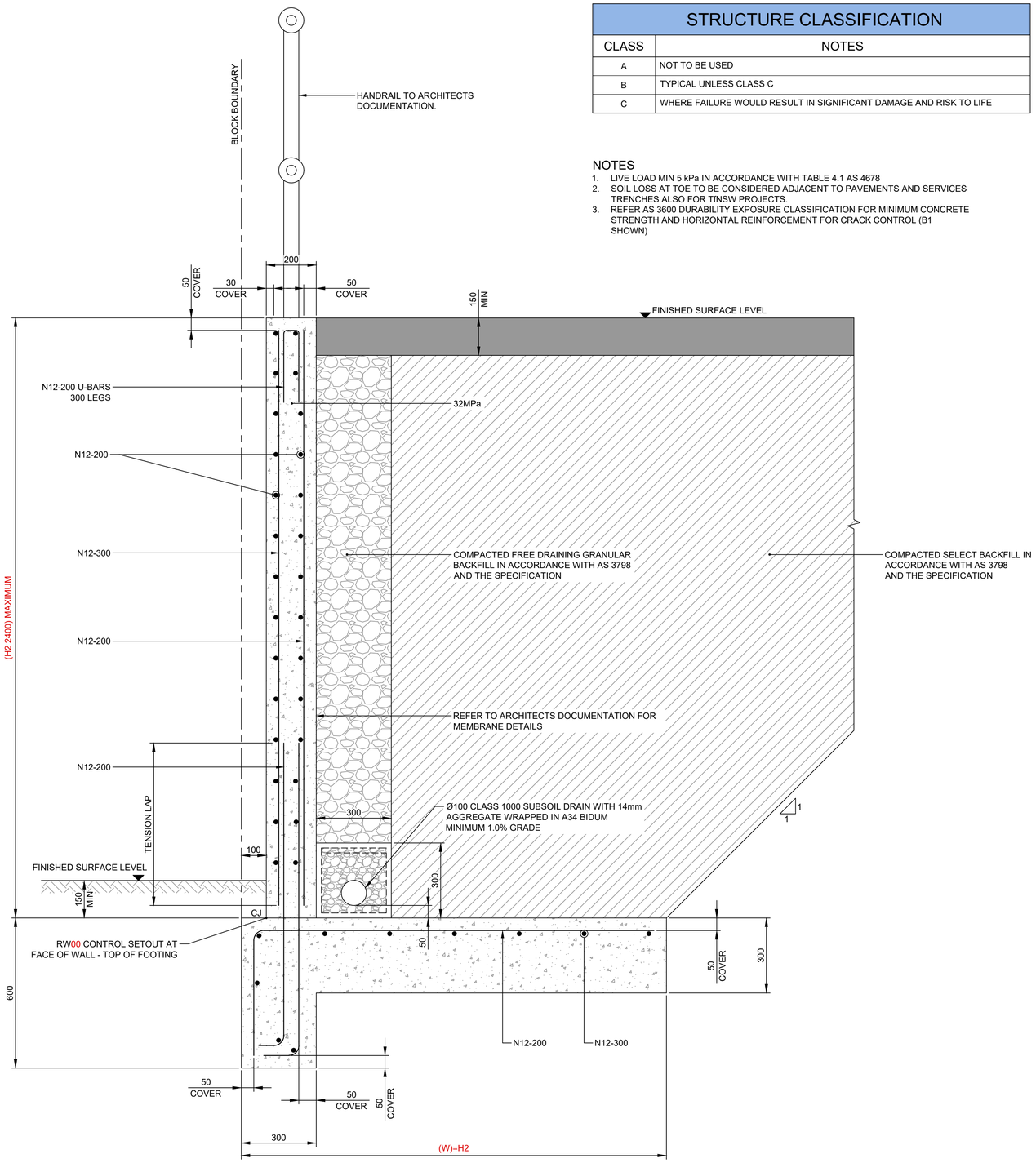
NOTE: RETAINING WALLS ARE SHOWN INDICATIVELY AND ARE SUBJECT TO DETAILED DESIGN

NOT FOR CONSTRUCTION

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





0 200 400 600 800mm
1:10 A1 1:20 A3

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

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

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Rev	Description	Eng Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF	ES 17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF	ES 21.11.2024

Client: NSW GOVERNMENT School Infrastructure NSW

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: RETAINING WALL DETAILS

Scale at A1	Drawn	Designed	Approved
	ES		CR

Project No	Originator	Type	Role	Sheet No.	Rev
GHHS-TTW-01-00-DR-C-06501-2					

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NOT FOR CONSTRUCTION

CONCRETE

1. PLACE CONCRETE OF THE FOLLOWING CHARACTERISTIC COMPRESSIVE STRENGTH f'c IN ACCORDANCE WITH AS 1379.
2.

LOCATION	f'c MPa (28 DAYS)	SPECIFIED SLUMP	NOMINAL AGG. SIZE
KERBS	S20	80	20
RETAINING WALL FOOTINGS	S40	80	20

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. UNLESS 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

CONCRETE FINISHING

1. ALL EXPOSED CONCRETE PAVEMENTS ARE TO BE BROOMED FINISHED.
2. ALL EDGES OF THE CONCRETE PAVEMENT INCLUDING KEYED 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.

FORMWORK

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.

LEGEND

PT1 — VEHICULAR PAVEMENT - ASPHALTIC CONCRETE
40mm COMPACTED THICKNESS AC14 WEARING COURSE ON
120mm COMPACTED THICKNESS DGB20 CLASS 1 BASE TO 98% MMDD AT ±2% OMC ON
125mm COMPACTED THICKNESS DGS20 SUBBASE TO 98% MMDD AT ±2% OMC ON
SUBGRADE MIN. CBR 5% COMPACTED TO 98% SMDD AT ±2% OMC

PT2 — VEHICULAR PAVEMENT - CONCRETE
170mm thick 32MPa concrete F82 on,
100mm thick compacted fine crushed rock (DGB20) on,
compacted subgrade

PT3 — HARDSTANDING - PEDESTRIAN PAVEMENT
125mm thick 32MPa concrete (colour oxide to landscape specification) SL72 on,
150mm thick compacted fine crushed rock (DGB20) on,
compacted subgrade

PT4 — HARDSTANDING - PEDESTRIAN PAVEMENT
125mm thick 32MPa concrete (colour oxide to landscape specification) SL72 on,
150mm thick compacted fine crushed rock (DGB20) on,
compacted subgrade

PT5 — REINSTATED ASPHALTIC
CONCRETE PAVEMENT

PT6 — PATH PAVEMENT TO CAMDEN CITY
COUNCIL SPECIFICATION

PT7 — DRIVEWAY PAVEMENT TO CAMDEN CITY
COUNCIL SPECIFICATION

LANDSCAPING
REFER TO LANDSCAPE ARCHITECT'S DOCUMENTATION

NOTES:

1. PAVEMENT BUILDUPS ARE INDICATIVE AND TO BE DEVELOPED IN DETAILED DESIGN.
2. ADOPTED DESIGN PARAMETERS:
   DESIGN TRAFFIC $5x10^5$ ESA, SUBGRADE 5% CBR MIN.

CONCRETE REINFORCEMENT

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.

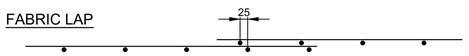
SYMBOL	TYPE	GRADE
N	HOT ROLLED RIBBED BAR	DN500N
R	PLAIN ROUND BAR	R250N
SL	SQUARE MESH	500L
RL	RECTANGULAR MESH	500L

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

LOCATION	COVER (MM)
FOOTINGS	50
WALLS	30

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 COGS TO BE STANDARD COGS UNLESS NOTED OTHERWISE.
7. FABRIC END AND SIDE LAPS ARE TO BE PLACED STRICTLY IN ACCORDANCE WITH THE MANUFACTURERS 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.

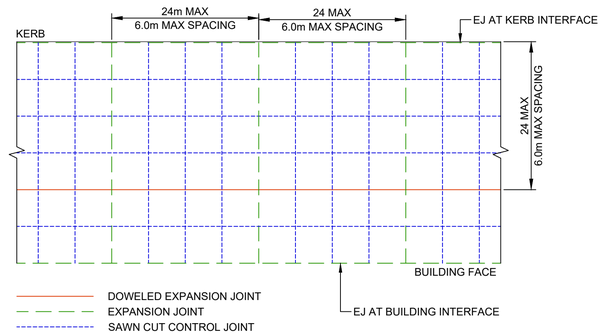
TENSION LAPS		
BAR SIZE	TOP BARS IN BANDS AND BEAMS	ALL OTHER BARS
N12	570	480
N16	800	700
N20	1150	950
N24	1500	1250
N28	1850	1500
N32	2250	1800
N36	2700	2100

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 = 32Mpa
   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 = 32Mpa.
   COLUMNS:
1. COVER TO COLUMNS = 40mm (30+10)k7 = 1.25
2. COVERS FOR FIRE RATING ARE TO BE DESIGNED BY THE ENGINEER.

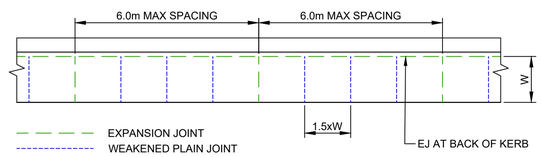
VEHICULAR PAVEMENT JOINTING (03000 SERIES DRAWINGS)

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 24.0M CENTRES.
4. SAWN JOINTS SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 6.0M 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 PAVERS.
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 COMMENCED. REFER TO THE SPECIFICATION FOR WEATHER CONDITIONS AND TEMPERATURES REQUIRED.
7. VEHICULAR PAVEMENT JOINTING AS FOLLOWS.



PEDESTRIAN PATH JOINTING (03000 SERIES DRAWINGS)

1. EXPANSION JOINTS ARE TO BE LOCATED WHERE POSSIBLE AT TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX 6.0M CENTRES.
2. WEAKENED PLANE JOINTS ARE TO BE LOCATED AT A MAX 1.5 X WIDTH OF THE PAVEMENT.
3. WHERE POSSIBLE JOINTS SHOULD BE LOCATED TO MATCH KERBING AND / OR ADJACENT PAVEMENT JOINTS.
4. ALL PEDESTRIAN FOOTPATH JOINTING AS FOLLOWS (UNO).



KERBING

INCLUDES ALL KERBS, GUTTERS, DISH DRAINS, CROSSINGS AND EDGES.

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.

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2	SCHEMATIC DESIGN FOR REF	SF ES	17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF ES	21.11.2024

Client: NSW GOVERNMENT School Infrastructure NSW

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: PAVEMENT NOTES AND LEGEND SHEET 1

Scale at A1	Drawn	Designed	Approved
	ES		CR

Project No	Originator	Type	Role	Sheet No.	Rev
GHHS-TTW-01-00-DR-C-07001-2					

16.12.2024 3:34 PM

0.0 10.0 20.0 30.0 40.0m
1:500 A1 1:1000 A3

NOT FOR CONSTRUCTION

DIGITARIA DRIVE
SITE BOUNDARY
NEW BUILDING BUILDING 1 FFL101.700
NEW BUILDING BUILDING 2 FFL101.700
NEW BUILDING BUILDING 3 FFL101.700
NEW BUILDING HALL FFL102.300
SUPPORT PLAY AREA
ASSEMBLY
HALF SPORTS FIELD
MULTICOURT SPORTS COURT
MULTICOURT SPORTS COURT
MULTICOURT SPORTS COURT
K&G
2 DP1262720
PT1
PT2
PT3
PT4
PT5
PT6
PT7
GREGORY HILLS DRIVE

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Rev	Description	Eng Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF ES	17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF ES	21.11.2024

Client: NSW GOVERNMENT School Infrastructure NSW

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: PAVEMENT PLAN

Scale at A1	Drawn	Designed	Approved
500	ES		CR

Project No	Originator	Type	Role	Sheet No.	Rev
GHHS-TTW-01-00-DR-C-07101-2					

17.12.2024 9:26 AM

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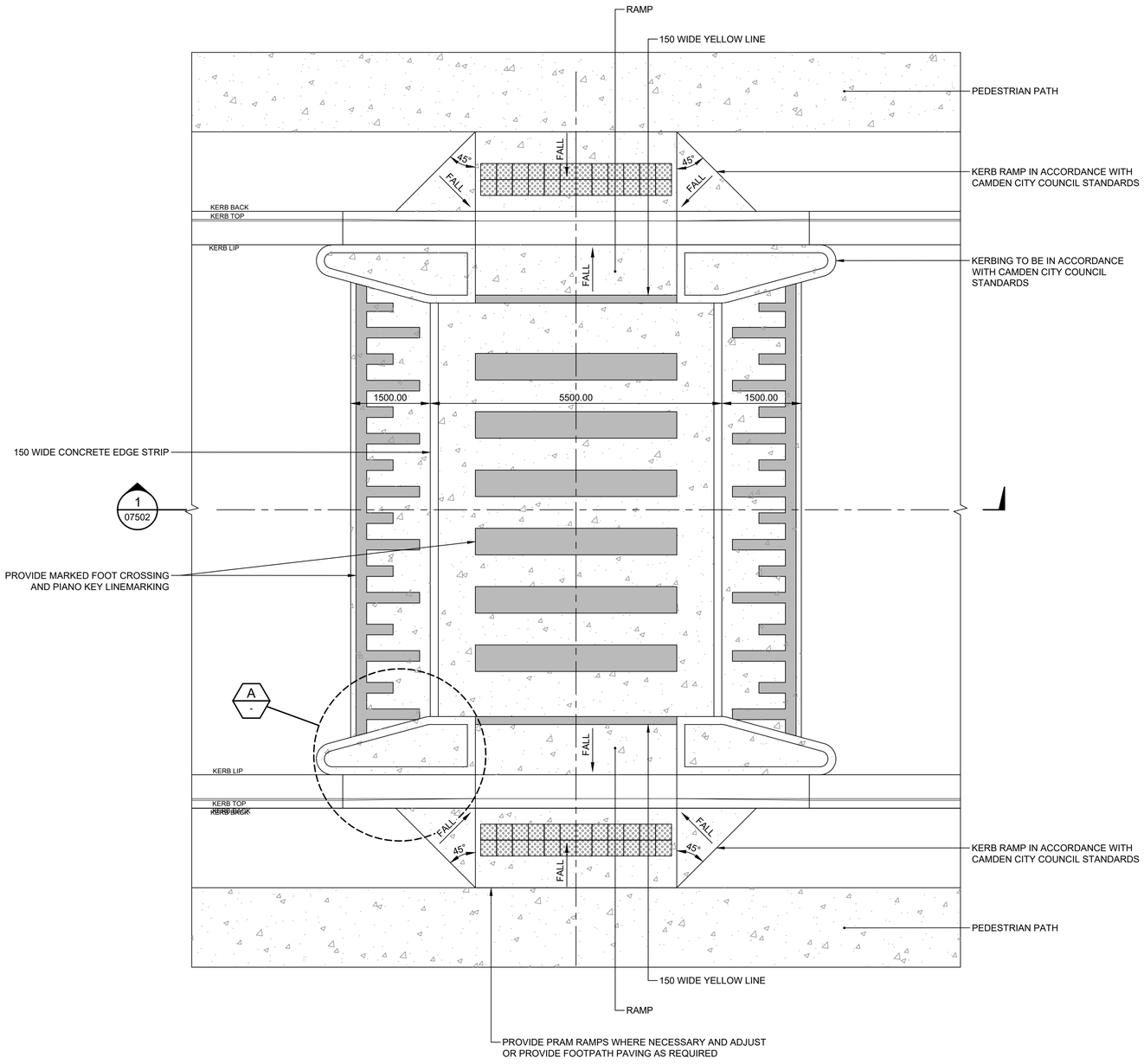
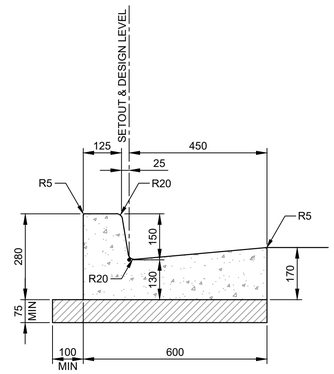
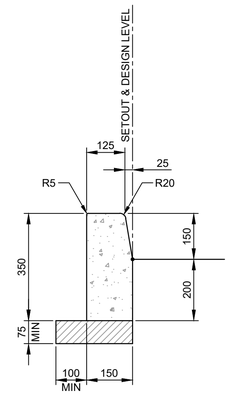


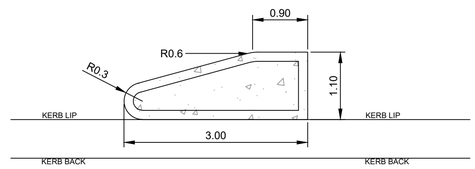
PLAN
RAISED PEDESTRIAN CROSSING
SCALE 1:50



KERB AND GUTTER (KG)
SCALE 1:10



KERB ONLY (KO)
SCALE 1:10



DETAIL A
SCALE 1:50

0 200 400 600 800mm
1:10 A1 1:20 A3

0.0 1000 2000 3000 4000mm
1:50 A1 1:100 A3

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Rev	Description	Eng Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF ES	17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF ES	21.11.2024

Client: School Infrastructure NSW

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: PAVEMENT DETAILS SHEET 1

Scale at A1	Drawn	Designed	Approved
	ES		CR

Project No	Originator	Type	Role	Sheet No.	Rev
GHHS-TTW-01-00-DR-C-07501-2					

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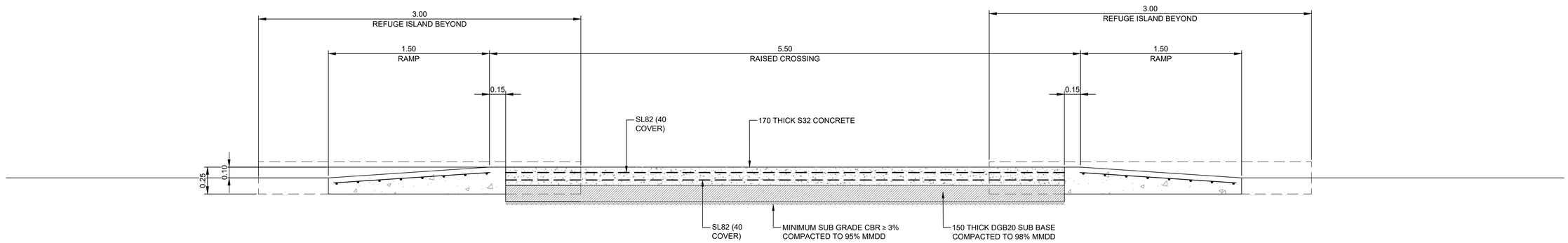

SECTION 1
SCALE 1:20 07501

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0 400 800 1200 1600mm
1:20 A1 1:40 A3

Rev	Description	Eng Draft	Date
2	SCHEMATIC DESIGN FOR REF	SF ES	17.12.2024
1	FINAL DRAFT ISSUE FOR REF	SF ES	21.11.2024

Client: School Infrastructure NSW

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: PAVEMENT DETAILS SHEET 2

Scale at A1	Drawn	Designed	Approved
	ES		CR

Project No	Originator	Type	Role	Sheet No.	Rev
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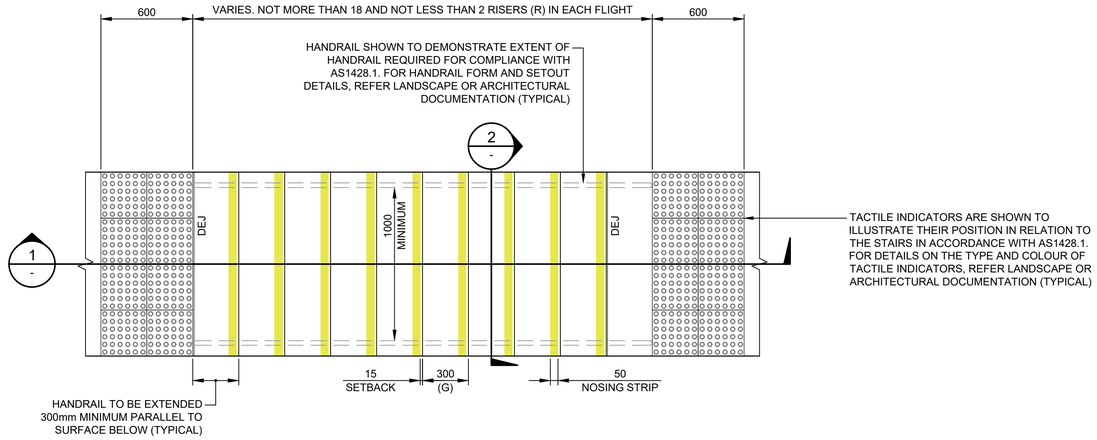
RISER AND GOING DIMENSIONS						
STAIR TYPE	RISER (R)		GOING (G)		SLOPE RELATIONSHIP (2R+G)	
	MAX	MIN	MAX	MIN	MAX	MIN
STAIRS (OTHER THAN SPRIAL)	190	115	355	240	700	550
SPIRAL	220	140	370	210	680	590

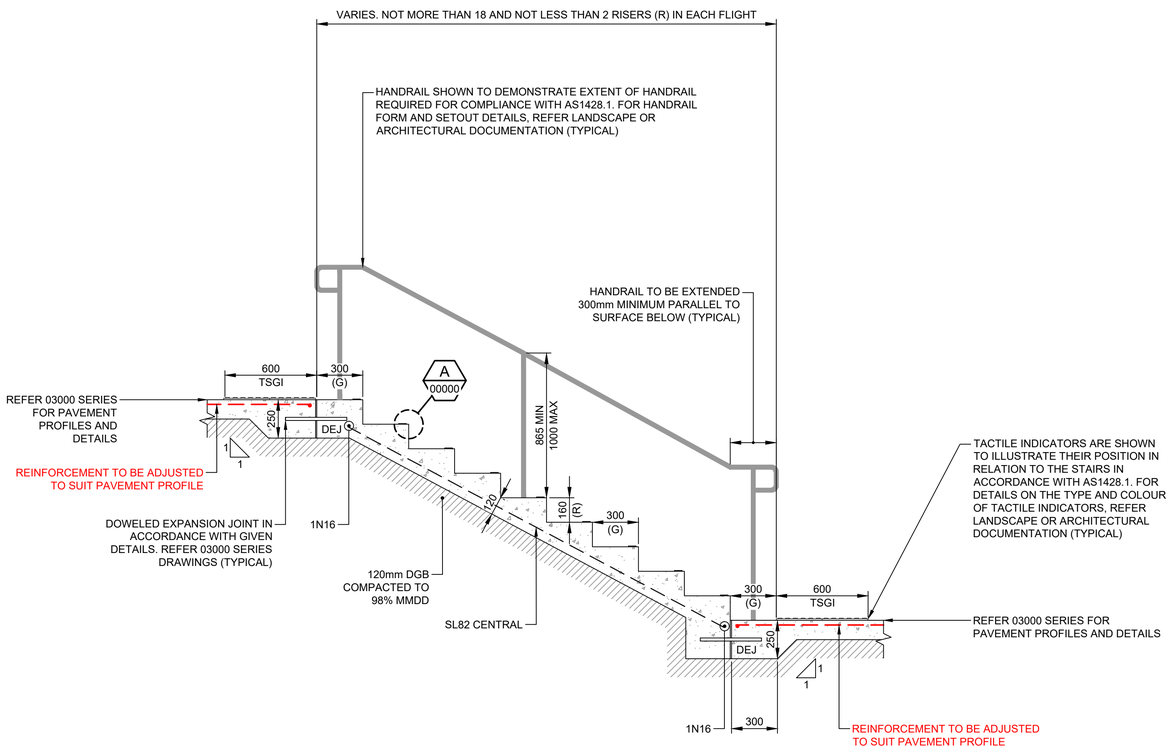
NOTES

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



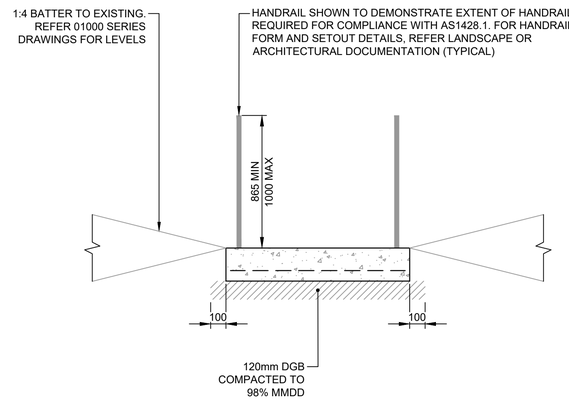
TYPICAL STAIR ON GRADE

SCALE 1:20



SECTION 1 / -

SCALE 1:20



SECTION 2 / -

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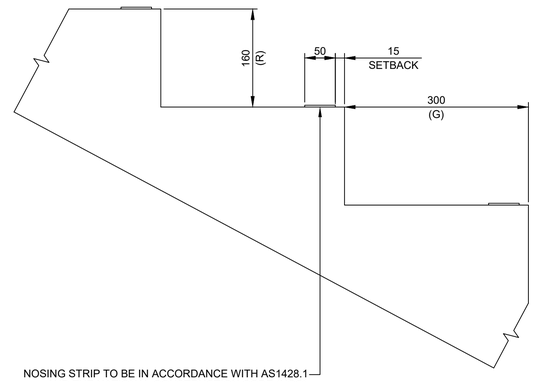

DETAIL A / 00000

SCALE 1:5

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1:20 A1 1:40 A3

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Client: NSW GOVERNMENT School Infrastructure NSW

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: PAVEMENT DETAILS SHEET 3

Scale at A1	Drawn	Designed	Approved
	ES		CR

Project No	Originator	Type	Role	Sheet No.	Rev
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DIGITARIA DRIVE

KISS AND RIDE 55.0

KISS AND RIDE 52.0

20.0 MIN

20.0

10.0

SITE BOUNDARY

EXISTING BUS STOP TO BE RELOCATED TO SITE FRONTAGE

PROPOSED NEW LOCATION FOR BUS SOP. LINE MARKING AND SIGNAGE IN ACCORDANCE WITH CAMDEN CITY COUNCIL SPECIFICATION

INDICATIVE NEW BUS STOP LOCATION. PROVIDE POLE, TGSI, SINGLE SHELTER, LINE MARKING AND SIGNAGE IN ACCORDANCE WITH CAMDEN CITY COUNCIL SPECIFICATION

GREGORY HILLS DRIVE

0.0 10.0 20.0 30.0 40.0m

1:500 A1 1:1000 A3

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Client: NSW GOVERNMENT School Infrastructure NSW

Engineer: TTW www.ttwengineers.com

Project: GLEDSWOOD HILLS HIGH SCHOOL LOT 2 DP1262720

Drawing Title: SIGNAGE AND LINEMARKING PLAN

Scale at A1	Drawn	Designed	Approved
500	ES		CR

Project No	Originator	Type	Role	Sheet No.	Rev
GHHS-TTW-01-00-DR-C-08101-2					

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