

CRANBROOK SCHOOL REDEVELOPMENT

CIVIL & STORMWATER PACKAGE

STATE SIGNIFICANT DEVELOPMENT APPLICATION

DRAWING LIST

DRAWING No.

60549969-SHT-00-0000-C-0001
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60549969-SHT-00-0000-C-0022
60549969-SHT-00-0000-C-0023
60549969-SHT-00-0000-C-0024

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60549969-SHT-00-0000-C-0112

60549969-SHT-00-0000-C-0201
60549969-SHT-00-0000-C-0202
60549969-SHT-00-0000-C-0211
60549969-SHT-00-0000-C-0221

60549969-SHT-00-0000-C-0301
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60549969-SHT-00-0000-C-0303
60549969-SHT-00-0000-C-0311
60549969-SHT-00-0000-C-0312
60549969-SHT-00-0000-C-0313
60549969-SHT-00-0000-C-0314
60549969-SHT-00-0000-C-0315

60549969-SHT-00-0000-C-0321

DRAWING TITLE

COVER SHEET, DRAWING LIST
GENERAL NOTES
GENERAL ARRANGEMENT
LAYOUT - MAIN DRIVEWAY
LAYOUT - ARC FRONTAGE
LAYOUT - WMH FRONTAGE

TYPICAL SITE SECTIONS - SHEET 1
TYPICAL SITE SECTIONS - SHEET 2

EROSION SEDIMENT CONTROL PLAN - SHEET 1
EROSION SEDIMENT CONTROL PLAN - SHEET 2
EROSION SEDIMENT CONTROL DETAILS
EARTHWORKS BOXING PLAN

DRAINAGE PLAN - SHEET 1
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DRAINAGE LONGITUDINAL SECTIONS - SHEET 1
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DRAINAGE LONGITUDINAL SECTIONS - SHEET 4
DRAINAGE LONGITUDINAL SECTIONS - SHEET 5

DRAINAGE CATCHMENT PLAN



PROJECT

Cranbrook School
Redevelopment

CLIENT

Cranbrook School

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REGISTRATION

PROJECT MANAGEMENT INITIALS

JW	WH	DF
DESIGNER	CHECKED	APPROVED

ISSUE/REVISION

1	24.11.2017	SSDA ISSUE - DRAFT
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KEY PLAN

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SHEET TITLE

COVER SHEET

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GENERAL

- 1 THE INFORMATION CONTAINED IN THESE DRAWINGS PRODUCED BY AECOM IS SOLELY FOR THE USE OF CRANBROOK SCHOOL FOR THE PURPOSE FOR WHICH IT HAS BEEN PREPARED. AECOM AUSTRALIA PTY LTD UNDERTAKES NO DUTY TO OR ACCEPTS NO RESPONSIBILITY TO ANY THIRD PARTY WHO MAY RELY UPON THIS DOCUMENT.
- 2 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER ENGINEERING AND PUBLIC DOMAIN DRAWINGS, THE SPECIFICATION, COUNCIL STANDARD DRAWINGS, AND WITH SUCH OTHER WRITTEN INSTRUCTIONS, AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT.
- 3 ANY DISCREPANCIES BETWEEN THESE NOTES AND DRAWINGS, AND COUNCIL SPECIFICATIONS AND DETAILS, THE DRAWINGS WILL TAKE PRECEDENCE.
- 4 ANY DISCREPANCIES OR OMISSIONS FROM THESE DOCUMENTS SHALL BE REFERRED TO THE SUPERINTENDENT FOR A DECISION BEFORE PRECEDING WITH THE WORK.
- 5 ALL WORKMANSHIP AND MATERIALS TO COMPLY WITH THE BUILDING CODE OF AUSTRALIA AS AMENDED AND THE APPROPRIATE AND CURRENT AUSTRALIAN STANDARDS OR LOCAL STATUTORY AUTHORITY GUIDELINES.
- 6 ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE. ALL CHAINAGES AND LEVELS ARE IN METRES UNLESS NOTED OTHERWISE.
- 7 ALL DIMENSIONS RELEVANT TO SETTING OUT OR OFF-SITE WORK SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION AND FABRICATION HAS COMMENCED.
- 8 DO NOT SCALE FROM DRAWINGS.
- 9 ORIGIN OF LEVELS - AHD
- COORDINATES TO MGA - MAP GRID AUSTRALIA.
- 10 WHERE NOTED ON DRAWINGS THAT WORKS ARE TO BE CARRIED OUT BY OTHERS, THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COORDINATION OF THESE WORKS AND THIS WORK WILL NOT QUALIFY FOR DELAY CLAIMS.
- 11 WHERE A PROPRIETARY ITEM (OR EQUIVALENT) IS SPECIFIED, AND AN EQUIVALENT ITEM IS PROPOSED, THE CONTRACTOR SHALL PROVIDE MANUFACTURERS SPECIFICATIONS FOR BOTH PRODUCTS TO THE SUPERINTENDENT FOR APPROVAL, AND DEMONSTRATE THAT THE PRODUCT PERFORMANCE IS EQUIVALENT OR BETTER, PRIOR TO USE.
- 12 ALL PROPRIETARY PRODUCTS ARE TO BE INSTALLED FIXED AND TESTED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
- 13 DURING CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT THE STRUCTURES AND EXCAVATIONS ARE MAINTAINED IN A SAFE AND STABLE CONDITION AT ALL TIME AND NO PART IS TO BE OVERSTRESSED. THE CONTRACTOR SHALL DEVELOP WORK METHOD STATEMENTS FOR ALL ERECTION OF STRUCTURAL STEEL/FORMWORK/ DEMOLITION/EXCAVATION/TILT PANELS ETC. AND PROVIDE TEMPORARY WORKS SUCH AS BRACING, PROPPING AND SHORING ETC. TO KEEP THE WORKS AND EXCAVATIONS STABLE AND FREE FROM WATER AT ALL TIMES. THE CONTRACTOR IS TO ENGAGE A STRUCTURAL ENGINEER TO DESIGN AND CERTIFY THE TEMPORARY WORKS.

SITEWORKS

- 1 THE CONTRACTOR TO MAKE SMOOTH CONNECTION TO ANY EXISTING WORKS.
- 2 ON COMPLETION OF THE WORKS, THE CONTRACTOR MUST RESTORE OR REINSTATE ANY AREAS, STRUCTURES, PAVEMENTS OR UTILITY SERVICES DAMAGED OR DIRTIED DURING THE CONSTRUCTION, TO THE SATISFACTION OF THE SUPERINTENDENT OR THE ASSET OWNER.
- 3 ALL TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT MATERIAL.
- 4 ALL SERVICE TRENCHES UNDER VEHICULAR PAVEMENTS SHALL BE BACKFILLED IN ACCORDANCE WITH COUNCIL STANDARD DRAWINGS
- 5 PROVIDE EXPANSION JOINTS BETWEEN BUILDINGS AND ALL CONCRETE AND UNIT PAVEMENTS.
- 6 ASPHALTIC CONCRETE SHALL CONFORM TO RMS QA SPECIFICATION R116
- 7 ALL BASECOURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH RMS QA SPECIFICATION 3051 - GRANULAR BASE AND SUBBASE MATERIALS FOR SURFACED ROAD PAVEMENTS, COMPACTED TO 98% MODIFIED DENSITY IN ACCORDANCE WITHAS1289 5.2.1. FREQUENCY OF COMPACTION TESTING TO BE NO LESS THAN 1 TEST PER 50m2 OF BASECOURSE MATERIAL PLACED.
- 8 ALL SUBBASECOURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH RMS QA SPECIFICATION 3051 - GRANULAR BASE AND SUBBASE MATERIALS FOR SURFACED ROAD PAVEMENTS, COMPACTED TO 95% MODIFIED DENSITY IN ACCORDANCE WITHAS1289 5.2.1. FREQUENCY OF COMPACTION TESTING TO BE NO LESS THAN 1 TEST PER 50m2 OF BASECOURSE MATERIAL PLACED.
- 9 THE USE OF RECYCLED MATERIALS IS ENCOURAGED. IF THE CONTRACTOR INTENDS TO USE RECYCLED MATERIALS, A RECYCLED MATERIAL COMPLYING WITH RMS QA SPECIFICATION 3051 - GRANULAR BASE AND SUBBASE MATERIALS FOR SURFACED ROAD PAVEMENTS WILL BE CONSIDERED, SUBJECT TO MATERIAL SAMPLES AND APPROPRIATE CERTIFICATIONS BEING PROVIDED TO THE SATISFACTION OF THE PRINCIPAL'S REPRESENTATIVE.
- 10 THE CONTRACTOR IS TO CONTINUE TO PROVIDE CERTIFICATION FOR ALL RECYCLED MATERIALS DURING THE COURSE OF CONSTRUCTION, AND WHERE MATERIAL THAT DOES NOT COMPLY, THE CONTRACTOR WILL BE RESPONSIBLE FOR REMOVAL AND REPLACEMENT WITH A SUITABLY COMPLIANT MATERIAL AT THEIR OWN COST.
- 11 SHOULD THE CONTRACTOR WISH TO USE A RECYCLED PRODUCT, THE INTENT SHALL BE CLEARLY INDICATED IN THEIR TENDER AND THE PRICE DIFFERENCE BETWEEN AN IGNEOUS PRODUCT AND A RECYCLED PRODUCT SHALL BE CLEARLY NOTED.

BULK EARTHWORKS

- 1 REFER TO THE FOLLOWING DOCUMENTS
 - a) GEOTECHNICAL REPORT BY DOUGLAS PARTNERS DATED 23.02.2016
- 2 THE CONTRACTOR MUST FAMILIARISE THEMSELVES WITH THE RECOMMENDATIONS OF BOTH THE GEOTECHNICAL REPORTS AND SITE REMEDIATION REQUIREMENTS.
- 3 ALL BULK EARTHWORKS TO CONFORM TO ENVIRONMENTAL CONSULTANT'S REQUIREMENTS
- 4 COMPACTION, TESTING, FILLING, STANDARD DRY DENSITIES AND MOISTURE CONTENTS TO BE IN ACCORDANCE WITH THE SPECIFICATION.
- 5 ALL EARTHWORKS AREAS SHALL BE ROLLED EACH EVENING TO RESTRICT THE INGRESS FROM POTENTIAL WATER INGRESS.

SAFETY

- 1 THE CONTRACTOR IS RESPONSIBE FOR SAFETY ONSITE.
- 2 THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL EXCAVATION WORKS IN A STABLE CONDITION, AND ENSURING NO PART SHALL BE OVERSTRESSED DURING CONSTRUCTION ACTIVITIES. PROVISION OF TEMPORARY BRACING, SHORING AND BATTERING IS BY THE CONTRACTOR AS REQUIRED TO PROVIDE A SAFE WORKING ENVIRONMENT.
- 3 THE CONTRACTOR MUST MAKE PROVISION FOR THE SAFETY OF NORMAL VEHICULAR TRAFFIC AND PEDESTRIANS, AND OTHERS INCLUDING UNAUTHORISED INTRUDERS.
- 4 ALL PITS, MANHOLES, PUMPSTATIONS AND OTHER CONFINED SPACES MUST BE FITTED WITH A CONFINED SPACE WARNING SIGN TO THE APPROVAL OF THE SUPERINTENDENT.
- 5 ALL CONDITIONS OF WITH THE ENVIRONMENTAL ASSESSMENT MUST BE MET.

EROSION AND SEDIMENT CONTROLS - GENERAL INSTRUCTIONS

- 1 THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE AND TAKE ALL STEPS NECESSARY TO PROTECT THE ENVIRONMENT DURING THE COURSE OF THEIR CONTRACT AND IN PARTICULAR IMPLEMENT THE NECESSARY MEASURES FOR THE CONTROL OF EROSION AND SEDIMENTATION TO THE SATISFACTION OF ALL ADMINISTERING BODIES INCLUDING WOOLLAHRA MUNICIPAL COUNCIL, NSW OFFICE OF WATER, SYDNEY WATER, RMS AND NSW ENVIRONMENT AND HERITAGE.
- 2 THE EROSION AND SEDIMENTATION CONTROLS SHOWN ON THE DRAWINGS SHALL ONLY BE USED AS A GUIDE BY THE CONTRACTOR AND SHALL REPRESENT THE MINIMUM REQUIREMENT ONLY.
- 3 EROSION AND SEDIMENTATION MEASURES ARE TO BE PROVIDED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORKS, ADJUSTED TO SUIT STAGING AND MAINTAINED FOR THE LIFE OF THE CONTRACT.
- 4 ALL MEASURES ARE TO BE DESIGNED AND IMPLEMENTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE 'BLUE BOOK' - SOILS AND CONSTRUCTION AND WOOLLAHRA COUNCIL DCP, AND CONFIRMED AS A PART OF THEIR CONSTRUCTION MANAGEMENT OR QUALITY PLAN FOR THE SITE.
- 6 ALL MEASURES INCLUDING DIVERSION BANKS, CATCH AND DIVERSION DRAINS AND SILT FENCES SHALL BE COMPLETED PRIOR TO COMMENCEMENT OF CONTRACT WORKS
- 7 DURING WINDY WEATHER, LARGE UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRAYING WITH CLEAN WATER TO CONTROL DUST
- 8 ALL STOCKPILES MUST NOT BE LOCATED IN AREAS SUBJECT TO LIKELY CONCENTRATIONS OF OVERLAND FLOWS, AND HAVE MEASURES APPLIED, SUCH AS SILT FENCING, TO PREVENT EROSION OF THE STOCKPILE.
- 9 CLEAN WATER IS TO BE DIVERTED AWAY FROM DISTURBED GROUND AND INTO THE DRAINAGE SYSTEM. ANY WATER ENTERING THE DRAINAGE SYSTEM MUST BE SEDIMENT FREE.

OTHER ENVIRONMENTAL NOTES

- 10 ACCEPTABLE RECEPTORS WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHING, LIGHT WEIGHT MATERIALS AND LITTER.

STORMWATER DRAINAGE

- 1 STORMWATER DESIGN CRITERIA
 - a) ROAD DRAINAGE
 - 20 YEAR ARI - MINOR STORM EVENT
 - 100 YEAR ARI - MAJOR STORM EVENT
- 2 EXISTING STORMWATER INFRASTRUCTURE SHOWN ON THE PLANS HAS BEEN TAKEN FROM THE FOLLOWING SOURCES: TOPOGRAPHIVAL SURVEY PREPARED BY HILL & BLUME CONSULTING SURVEYORS (DATED 14.05.2010) 'CRANBROOK SCHOOL SERVICE INFRASTRUCTURE SERVICE AUDIT REPORT' PREPARED BY ERBAS & ASSOCIATES (DATED 7.02.2014) WOOLLAHRA COUNCIL STORMWATER INFRASTRUCTURE MAP
- 2 PIPES 375mm DIA AND LARGER TO BE REINFORCED CONCRETE CLASS'4', 10/20 COVER, APPROVED SPIGGOT AND SOCKET WITH RUBBER RING JOINTS U.N.O. ALL PIPEWORK IS TO BE LAID WITH THE SOCKET FACING UPSTREAM. ALL WORKS ARE TO COMMENCE AT THE OUTLET END OF EACH LINE.
- 3 PIPES TO BE INSTALLED TO TYPE HS3 SUPPORT UNDER ROADS, PATHS AND DRIVEWAYS, AND TO TYPE HS2 ELSEWHERE, IN ACCORDANCE WITH AS3725. BACKFILLING AND MATERIALS IS TO BE IN ACCORDANCE WITH THE SPECIFICATION.
- 4 PITS TO BE CONSTRUCTED IN ACCORDANCE WITH COUNCIL STANDARD DETAILS. PRECAST PITS WILL NOT BE ACCEPTED UNLESS THROUGH EXPRESSED PERMISSION OF COUNCIL.
- 5 CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.
- 6 GRATES AND COVERS SHALL CONFORM TO WOOLLAHRA COUNCIL SPECIFICATION FOR ROADWORKS, DRAINAGE AND MISCELLANEOUS WORKS (FEB 2012).
- 7 AT ALL TIMES DURING CONSTRUCTION, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO PREVENT PERSONNEL FROM FALLING INTO PITS AND OPEN TRENCHES.
- 8 ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN, ARE TO BE INSPECTED AND CLEANED, AND ANY PART OF THAT SYSTEM IDENTIFIED AS WARRANTING REPAIR, SHALL BE REPORTED TO THE SUPERINTENDENT FOR FURTHER DIRECTION.
- 9 CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT PIPES FROM DAMAGE DUE TO HEAVY CONSTRUCTION LOADING. CONTRACTOR TO UNDERTAKE PRE AND POST CONSTRUCTION CCTV INSPECTIONS FOR ALL PIPE LINES IMPACTED BY THE WORKS, TO BE PROVIDED TO URBANGROWTH NSW FOR ACCEPTANCE PRIOR TO HAND-OVER.
- 10 THE CONTRACTOR IS TO MANAGE AND STAGE CONSTRUCTION WORKS, INCLUDING PROVIDING TEMPORARY DIVERSION WORKS IF NECESSARY, TO ENSURE ANY EXISTING DRAINAGE SYSTEM IS ABLE TO PERFORM TO ITS CURRENT STANDARD.
- 11 THE CONTRACTOR SHALL PROTECT THE WORKS IN PROGRESS. ANY DAMAGE TO THE WORKS IN PROGRESS, INCLUDING FROM STORMWATER FLOWS OR FLOODING, IS AT THE CONTRACTOR'S RISK.

SURVEY NOTES

THE SURVEY INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. AECOM DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS. SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT THE SUPERINTENDENT.

UTILITY SERVICES

- 1 ALL UTILITY WORKS TO BE IN ACCORDANCE WITH ALL PUBLIC OR PRIVATE SERVICE PROVIDER DRAWINGS, AS WELL AS THE UTILITY CONSULTANT'S REQUIREMENTS.
- 2 EXISTING UTILITIES SHOWN ON DRAWINGS ARE INDICATIVE ONLY AND MAY NOT INCLUDE ALL SERVICES PRESENT. AECOM TAKES NO RESPONSIBILITY FOR THE UTILITY INFORMATION AS SHOWN ON THESE DRAWINGS.
- 3 IT IS THE CONTRACTORS RESPONSIBILITY TO LIAISE WITH EACH UTILITY SERVICE PROVIDER ON SITE, TO LOCATE AND IDENTIFY THE SIZE, POSITION, LINE AND LEVEL OF ALL UTILITY SERVICES IN BOTH PUBLIC AND PRIVATE LAND, PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.
- 4 THE CONTRACTOR MUST TAKE EVERY PRECAUTION TO PROTECT EXISTING AND NEW UTILITY SERVICES THROUGH THE COURSE OF THE CONTRACT.
- 5 THE EXECUTION OF ALL WORKS INVOLVING UTILITY SERVICES, EITHER NEW OR EXISTING, IS THE RESPONSIBILITY OF THE CONTRACTOR AND FORM PART OF THE CONTRACT PRICE, UNLESS SPECIFICALLY NOTED OTHERWISE.
- 6 ALL SERVICE PIT COVERS TO BE PLACED AT FINISHED SURFACE LEVELS TO MATCH THE PROPOSED LONGITUDINAL AND CROSS FALL GRADES OF THE FOOTPATH OR ROADWAY IT IS CONTAINED WITHIN.
- 7 NO PIPE OR TRENCH SHALL BE LOCATED WITHIN THE ZONE OF INFLUENCE (1V:2H) OF A FOOTING.
- 8 MINIMUM CLEARANCES BETWEEN SERVICES TO BE PROVIDED UNLESS DIRECTED BY THE SUPERINTENDENT.
- 9 "WORKS AS CONSTRUCTED" SURVEY ON ALL UTILITY WORK SHALL BE RECORDED PRIOR TO ANY BACKFILLING.

KERB NOTES

- 1 ALL CONCRETE FOR KERBS TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 25 MPa U.N.O. IN THE DRAWINGS.
- 2 ALL KERBS, GUTTERS AND CROSSINGS TO BE CONSTRUCTED ON 150mm (DGB20), COMPACTED TO MINIMUM 98% STANDARD MDD (AS1289 5.2.1)
- 3 EXPANSION JOINTS (E.J.) TO BE FORMED FROM 15mm COMPRESSIBLE CORK FILLER BOARD FOR THE FULL DEPTH OF SECTION AND CUT TO PROFILE. EXPANSION JOINTS TO BE LOCATED AT 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 THE SLABS.
- 4 WEAKENED PLANE JOINTS TO BE 5mm WIDE AND LOCATED AT 3m CENTRES, EXCEPT FOR INTEGRAL KERBS WHERE THE WEAKENED PLANE JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLABS.
- 5 BROOMED FINISH TO ALL RAMPED AND VEHICULAR CROSSINGS. ALL OTHER KERBING OR DISH DRAINS TO BE STEEL FLOAT FINISH.
- 6 IN REPLACEMENT OF KERB AND GUTTER, THE EXISTING ROAD PAVEMENT IS TO BE SAWCUT AND REINSTATED IN ACCORDANCE WITH THE STANDARD DETAIL IN THESE DRAWINGS.



PROJECT

Cranbrook School Redevelopment

CLIENT

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DESIGNER	CHECKED	APPROVED

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KEY PLAN

PROJECT NUMBER

60549969

SHEET TITLE

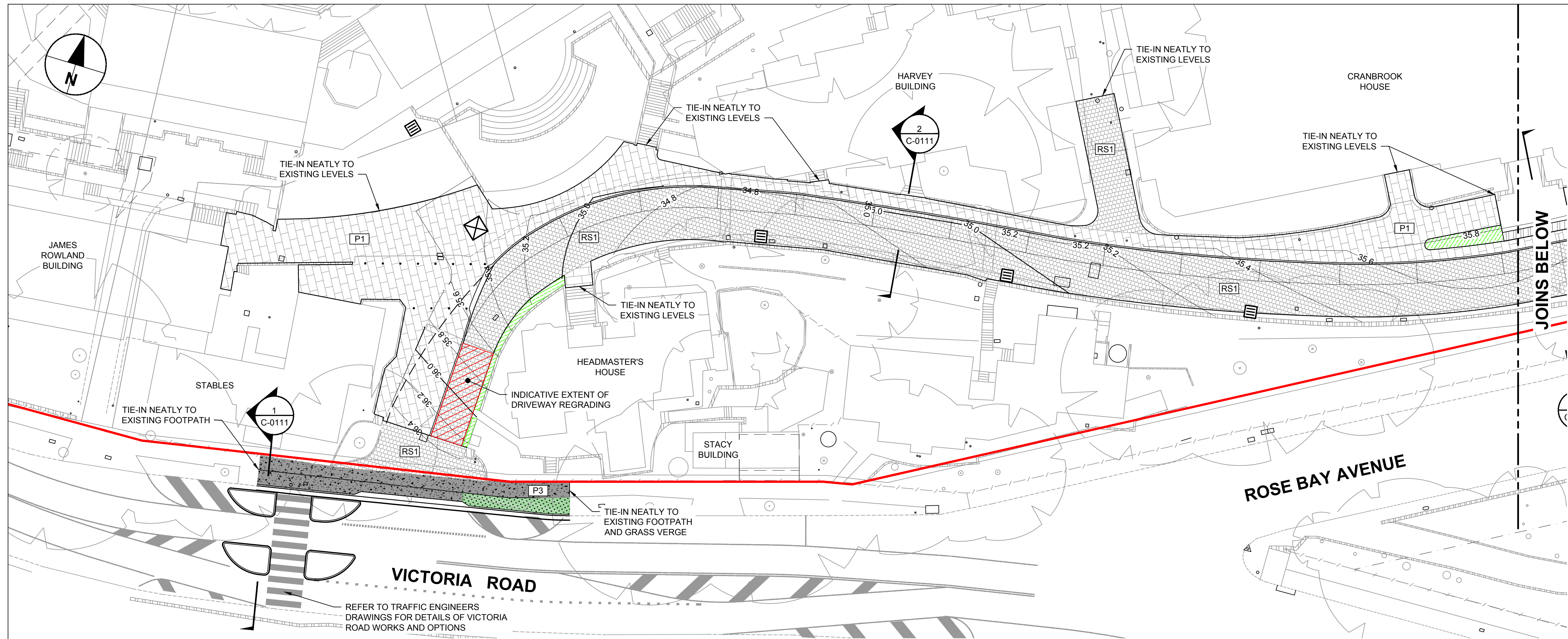
GENERAL NOTES

SHEET NUMBER

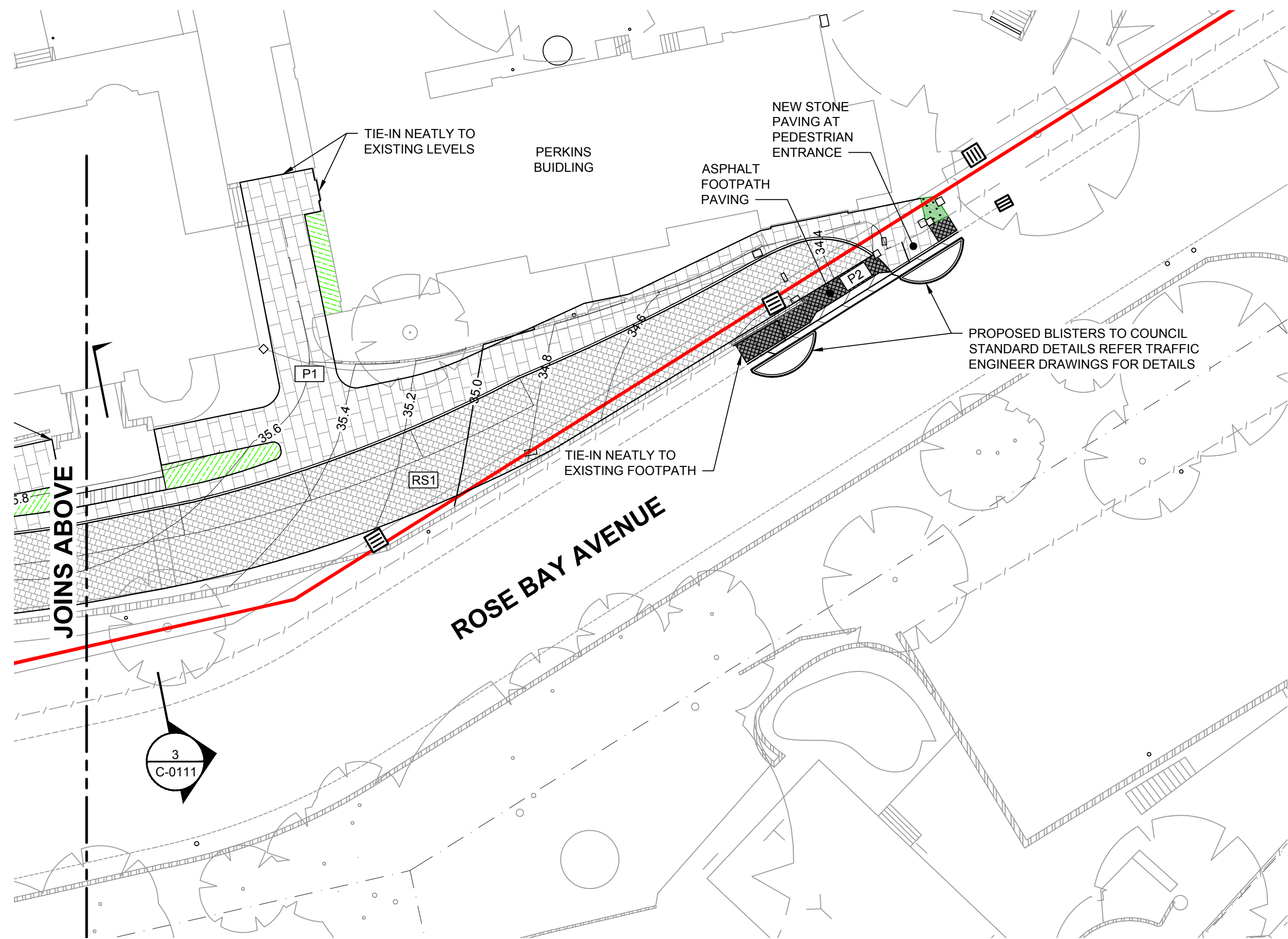
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PLAN
SCALE 1:250



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PROJECT

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



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LEGEND

	STONE ROAD SURFACE TO LANDSCAPE ARCHITECT'S DETAILS
	ASPHALT ROAD REINSTATEMENT
	STONE FOOTPATH PAVING TO LANDSCAPE ARCHITECT'S DETAILS
	ASPHALT FOOTPATH REINSTATEMENT TO COUNCIL'S DETAILS
	CONCRETE FOOTPATH REINSTATEMENT TO COUNCIL'S DETAILS
	SOFT LANDSCAPE
	TURF

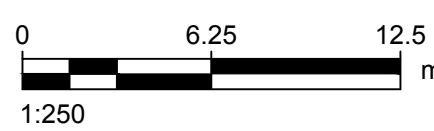
RL 16.70 PROPOSED FINISHED LEVEL
 ■■■■■ PROPOSED RETAINING WALL

NOTES:

- ## 1. FINAL LEVELS TO BE COORDINATED TO TIE INTO EXISTING LEVELS

REGISTRATION

SCALE BAR (A1)



PROJECT MANAGEMENT INITIALS

JW	WH	DF
DESIGNER	CHECKED	APPROVED

ISSUE/REVISION

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SHEET TITLE

MAIN DRIVEWAY LAYOUT PLAN

SHEET NUMBER

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









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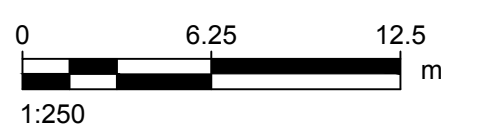
- | | |
|---|--|
|  | STONE ROAD SURFACE TO
LANDSCAPE ARCHITECT'S DETAILS |
|  | ASPHALT ROAD REINSTATEMENT |
|  | STONE FOOTPATH PAVING TO
LANDSCAPE ARCHITECT'S DETAILS |
|  | ASPHALT FOOTPATH REINSTATEMENT
TO COUNCIL'S DETAILS |
|  | CONCRETE FOOTPATH
REINSTATEMENT TO
COUNCIL'S DETAILS |
|  | SOFT LANDSCAPE |
|  | TURF |
|  | PROPOSED BATTER |
|  | PROPOSED GENERAL FILL |
|  | PROPOSED OVAL REGRADING
AND REINSTATEMENT |
|  | PROPOSED RETAINED LEVEL |
|  | PROPOSED RETAINING WALL |

NOTES:

- ## 1. FINAL LEVELS TO BE COORDINATED TO TIE INTO EXISTING LEVELS

REGISTRATION

SCALE BAR (A1)



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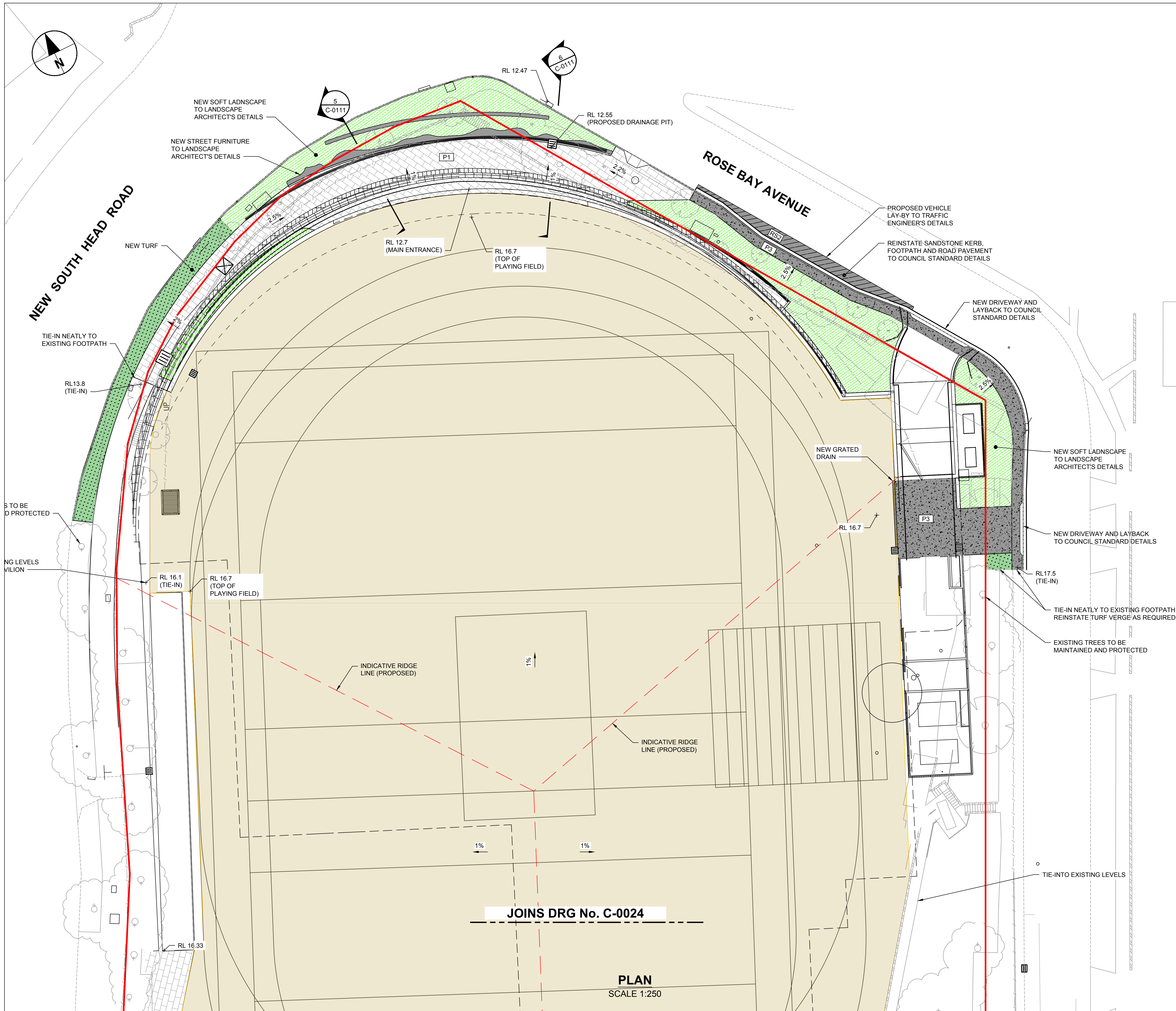
ARC FRONTAGE LAYOUT PLAN

SHEET NUMBER

60549969-SHT-00-0000-C-0023

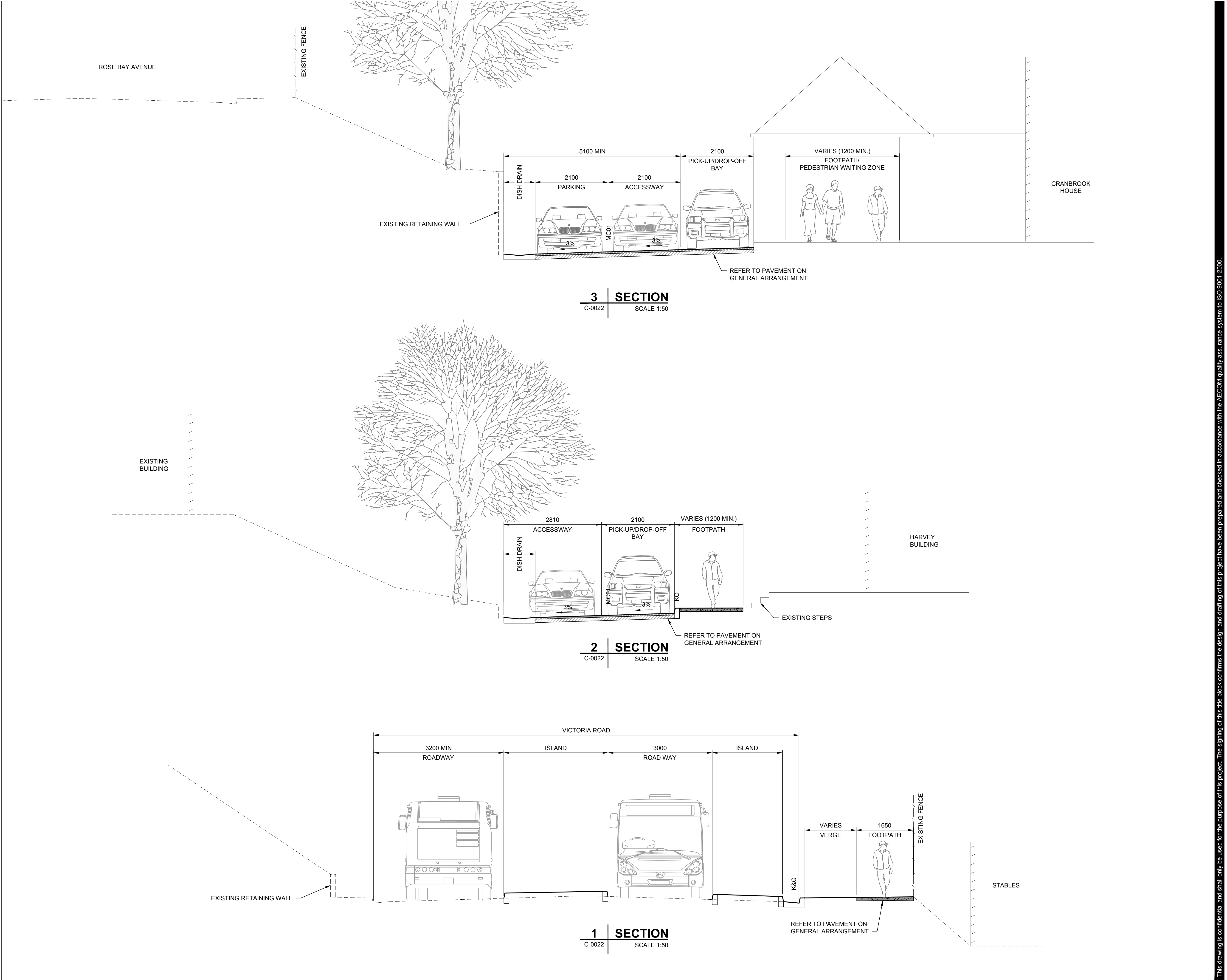
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ISO A1 594mm x 841mm

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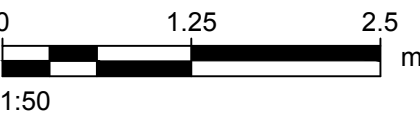
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REGISTRATION

SCALE BAR (A1)



PROJECT MANAGEMENT INITIALS

JW	WH	DF
DESIGNER	CHECKED	APPROVED

ISSUE/REVISION

1	24.11.2017	SSDA ISSUE - DRAFT
I/R	DATE	DESCRIPTION

KEY PLAN

PROJECT NUMBER

60549969

SHEET TITLE

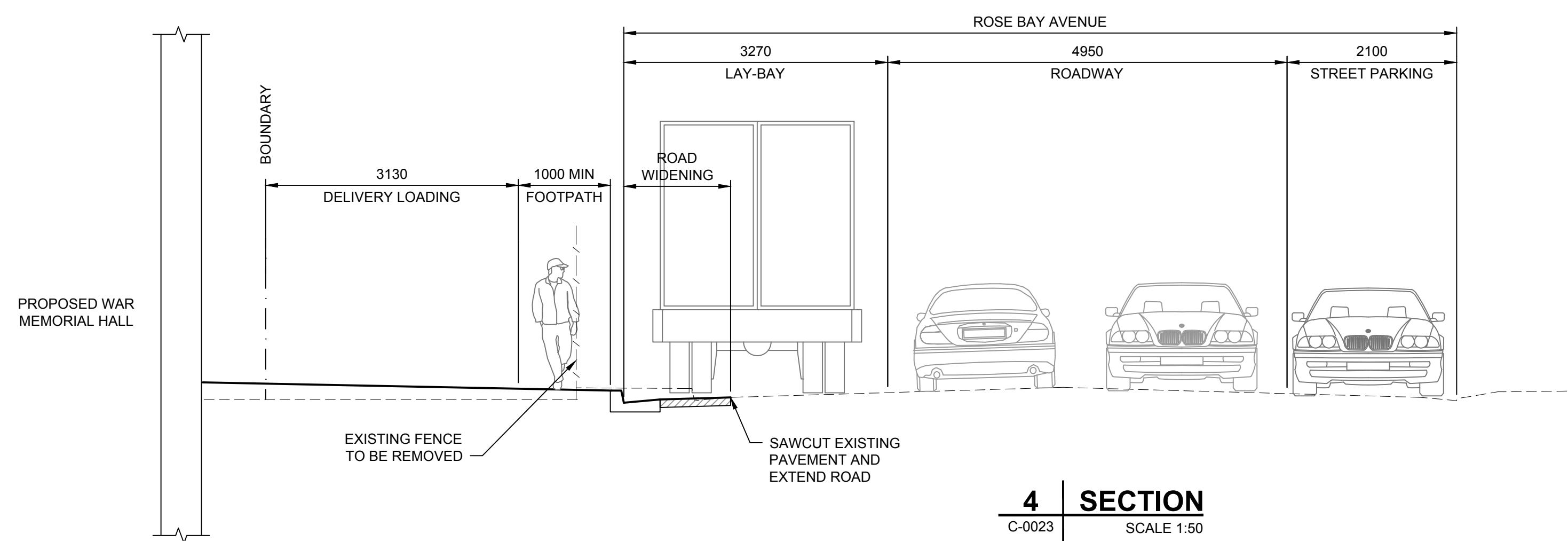
TYPICAL SITE SECTIONS

SHEET 1

SHEET NUMBER

60549969-SHT-00-0000-C-0111

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Cranbrook School Redevelopment

Cranbrook School

CONSULTANT

LEGEND

PROPOSED LOT BOUNDARIES
 SEDIMENT FENCE
 DIVERSION SWALE
 MESH AND GRAVEL INLET FILTER
 PROPOSED DRAINAGE PITS
 STABILISED SITE ACCESS AND WHEEL WASH
 STRAW BALE FILTER
 EXTENT OF CONSTRUCTION ACCESS

SCALE BAR (A1)



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KEY PLAN

PROJECT NUMBER

60549969

SHEET TITLE

EROSION AND SEDIMENT CONTROL
PLAN
SHEET 1

SHEET NUMBER

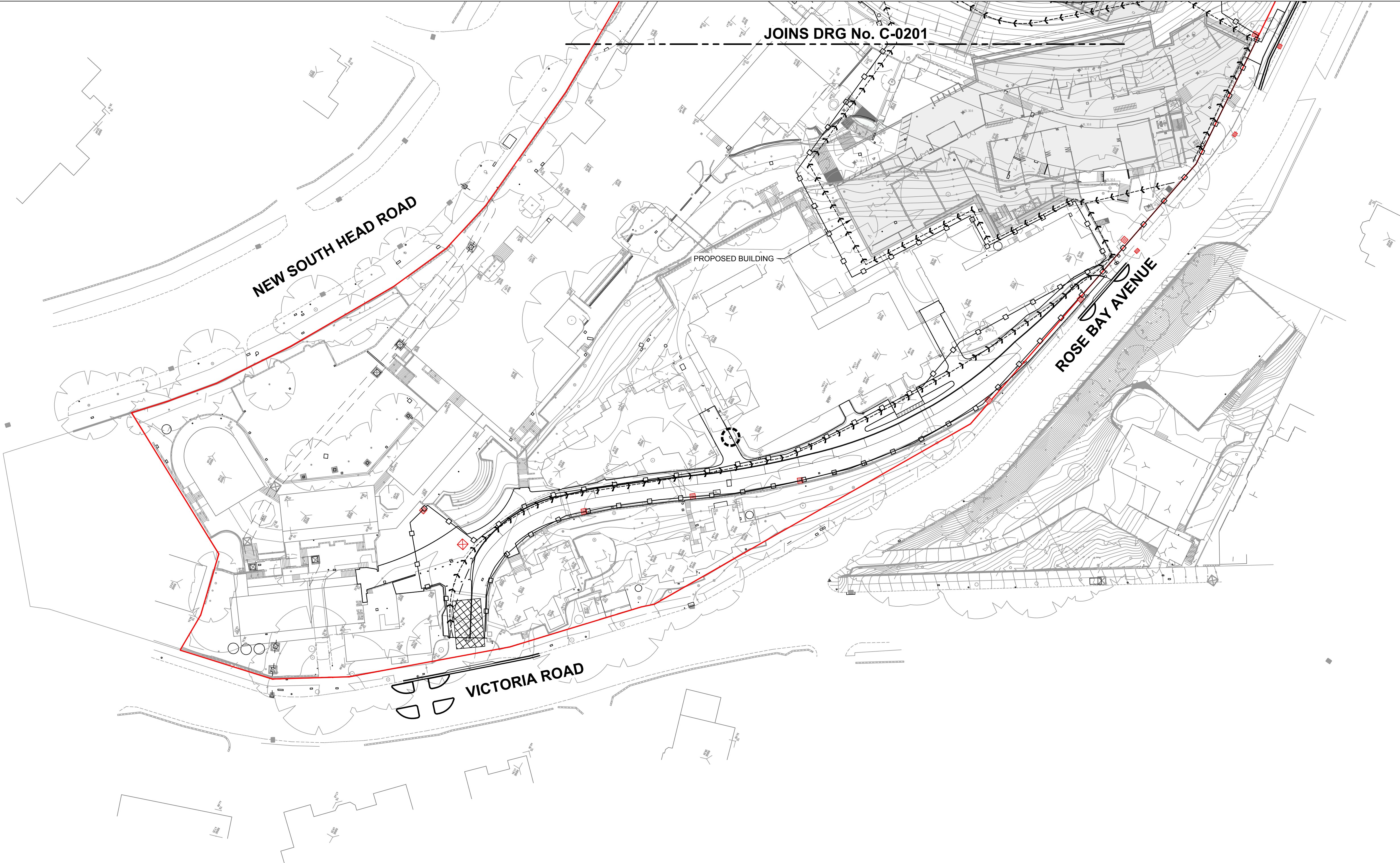
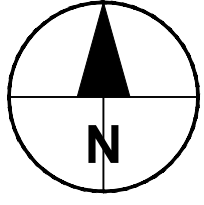
60549969-SHT-00-0000-C-0201

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JOINS DRG No. C-0202

ISO A1 594mm x 841mm

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PROJECT

Cranbrook School
Redevelopment

CLIENT

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Prepared for:
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CONSULTANT

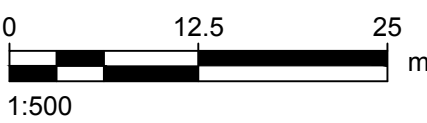
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LEGEND

- PROPOSED LOT BOUNDARIES
- SEDIMENT FENCE
- DIVERSION SWALE
- MESH AND GRAVEL INLET FILTER
- PROPOSED DRAINAGE PITS
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- STRAW BALE FILTER
- EXTENT OF CONSTRUCTION ACCESS

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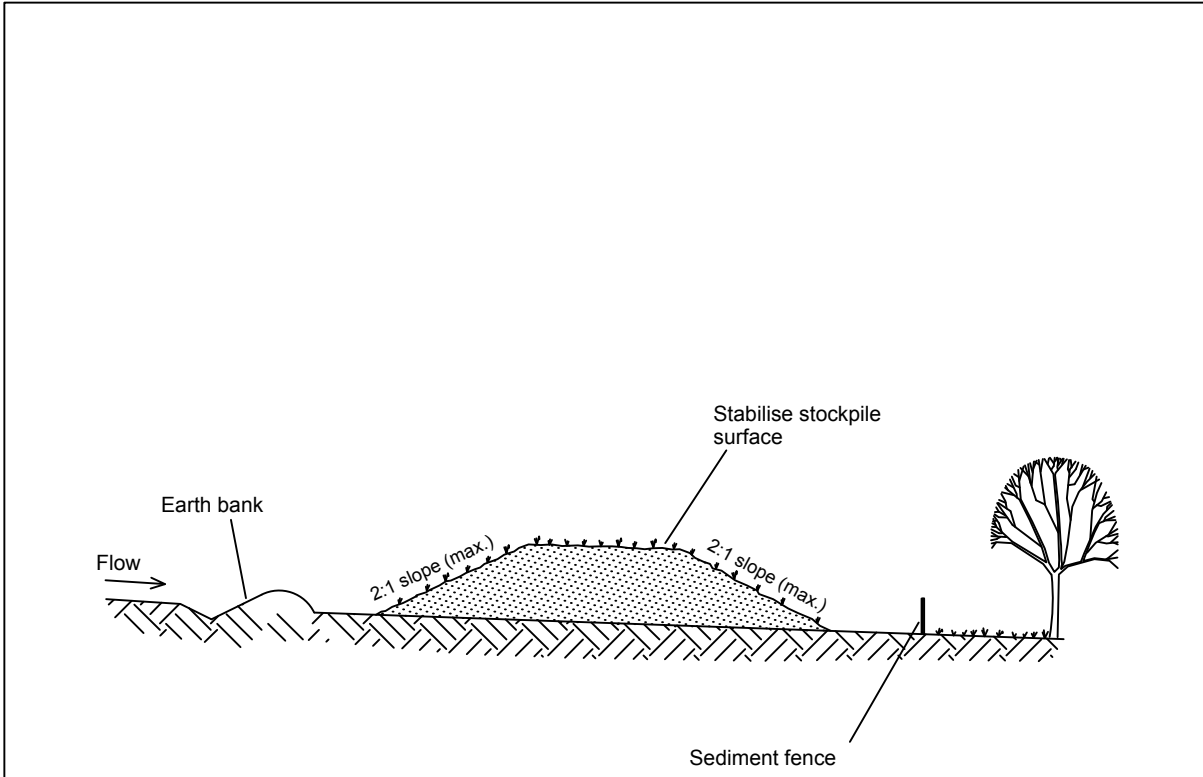
SHEET TITLE

EROSION AND SEDIMENT CONTROL
PLAN
SHEET 2

SHEET NUMBER

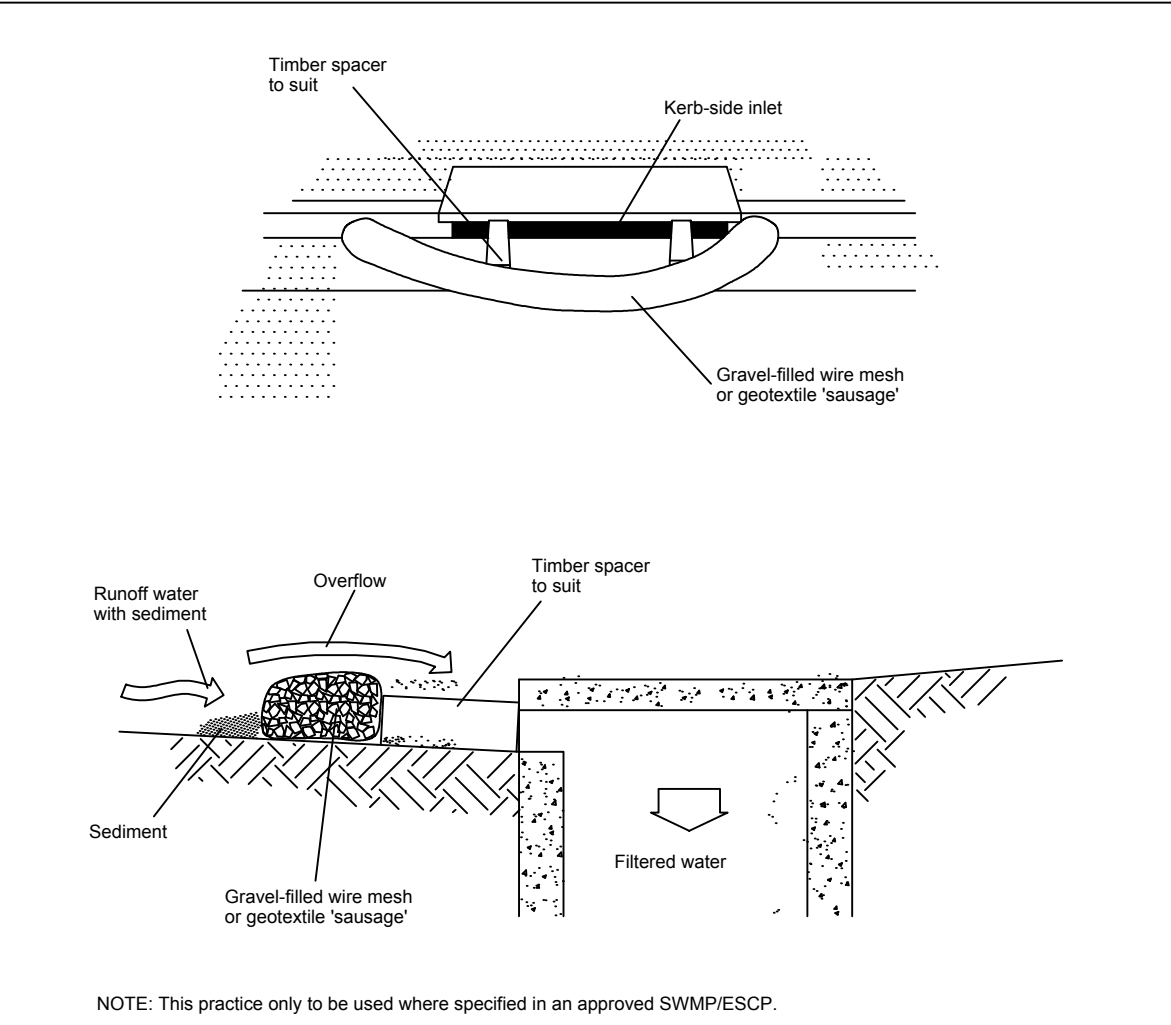
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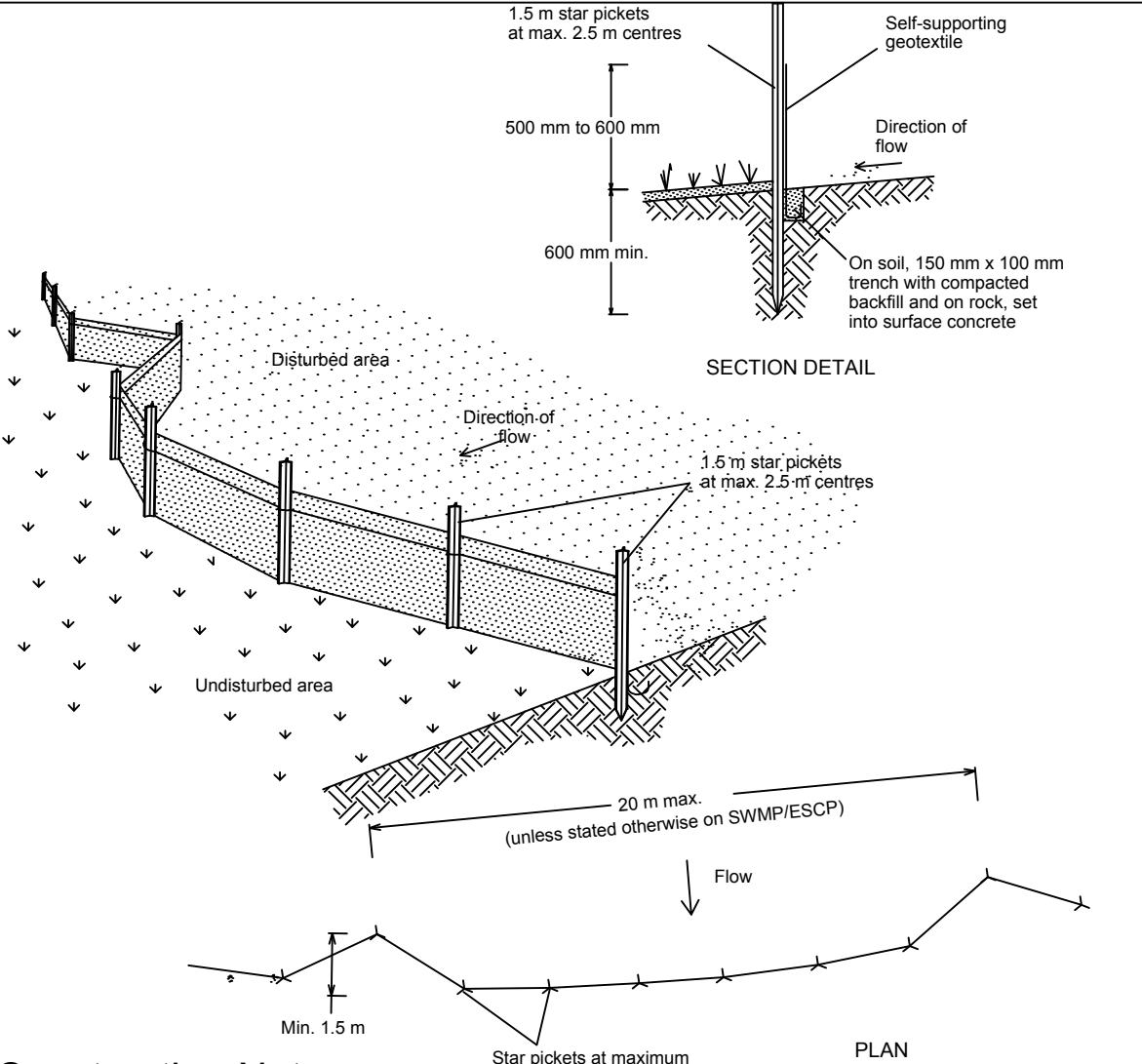
Construction Notes

1. Place stockpiles more than 2 (preferably 5) metres from existing vegetation, concentrated water flow, roads and hazard areas.
2. Construct on the contour as low, flat, elongated mounds.
3. Where there is sufficient area, topsoil stockpiles shall be less than 2 metres in height.
4. Where they are to be in place for more than 10 days, stabilise following the approved ESCP or SWMP to reduce the C-factor to less than 0.10.
5. Construct earth banks on the upslope side to divert water around stockpiles and sediment fences 1 to 2 metres downslope.



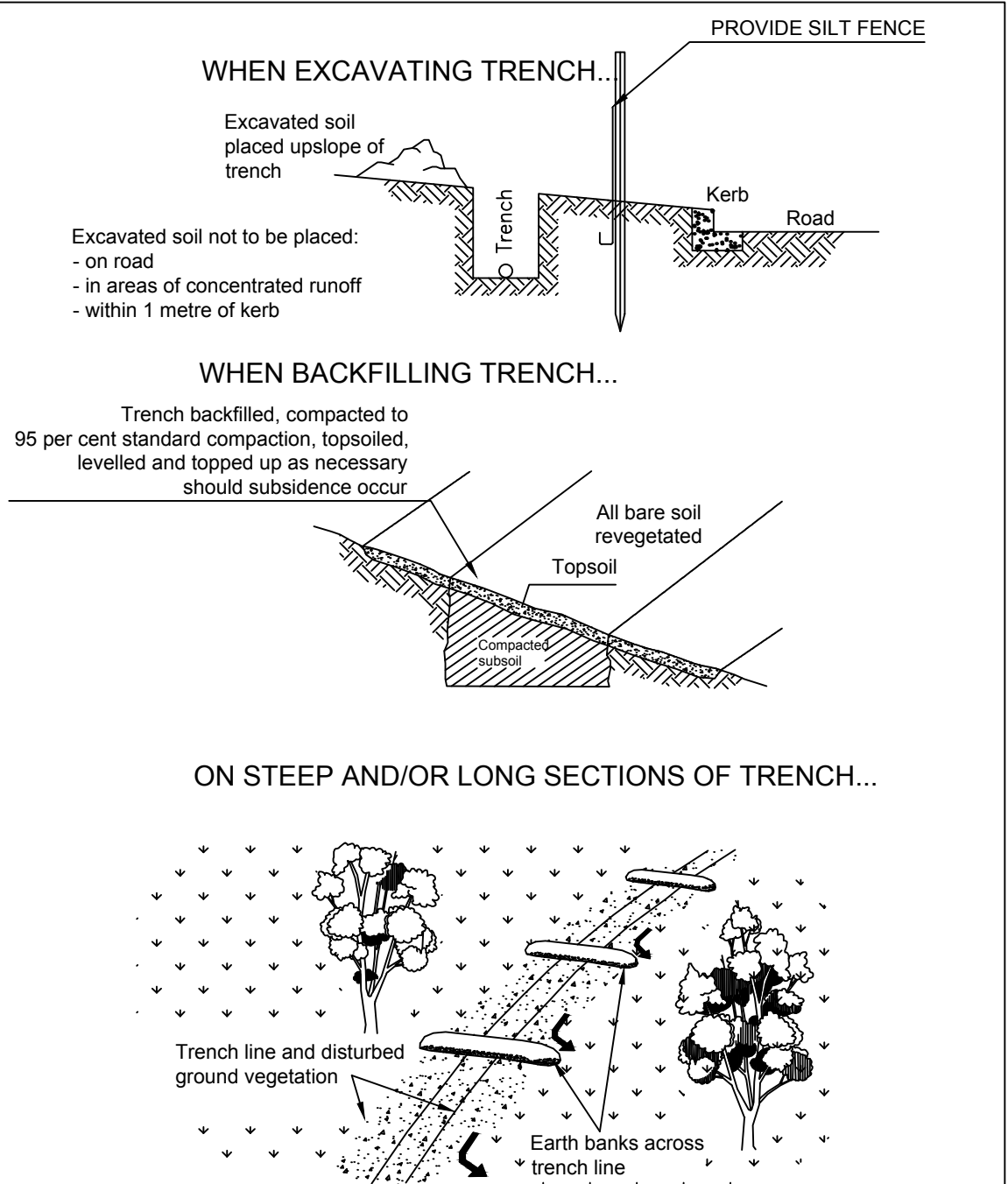
Construction Notes

1. Install filters to kerb inlets only at sag points.
2. Fabricate a sleeve made from geotextile or wire mesh longer than the length of the inlet pit and fill it with 25 mm to 50 mm gravel.
3. Form an elliptical cross-section about 150 mm high x 400 mm wide.
4. Place the filter at the opening leaving at least a 100-mm space between it and the kerb inlet. Maintain the opening with spacer blocks.
5. Form a seal with the kerb to prevent sediment bypassing the filter.
6. Sandbags filled with gravel can substitute for the mesh or geotextile providing they are placed so that they firmly abut each other and sediment-laden waters cannot pass between.



Construction Notes

1. Construct sediment fences as close as possible to being parallel to the contours of the site, but with small returns as shown in the drawing to limit the catchment area of any one section, the catchment area should be small enough to limit water flow if concentrated at one point to 50 litres per second in the design storm event, usually the 10-year event.
2. Cut a 150-mm deep trench along the upslope line of the fence for the bottom of the fabric to be entrenched.
3. Drive 1.5 metre long star pickets into ground at 2.5 metre intervals (max) at the downslope edge of the trench. ensure any star pickets are fitted with safety caps.
4. Fix self-supporting geotextile to the upslope side of the posts ensuring it goes to the base of the trench. fix the geotextile with wire ties or as recommended by the manufacturer. only use geotextile specifically produced for sediment fencing, the use of shade cloth for this purpose is not satisfactory.
5. Join sections of fabric at a support post with a 150-mm overlap.
6. Backfill the trench over the base of the fabric and compact it thoroughly over the geotextile.



Construction Notes

1. Do not open any trench unless it is likely to be closed in three days.
2. Place excavated material upslope of trench.
3. Stockpile topsoil separately from subsoil.
4. Divert runoff from the line of the cut with diversions as directed by standard drawing 5-2.
5. Rehabilitate in accordance with specification.

STOCKPILE PROTECTION

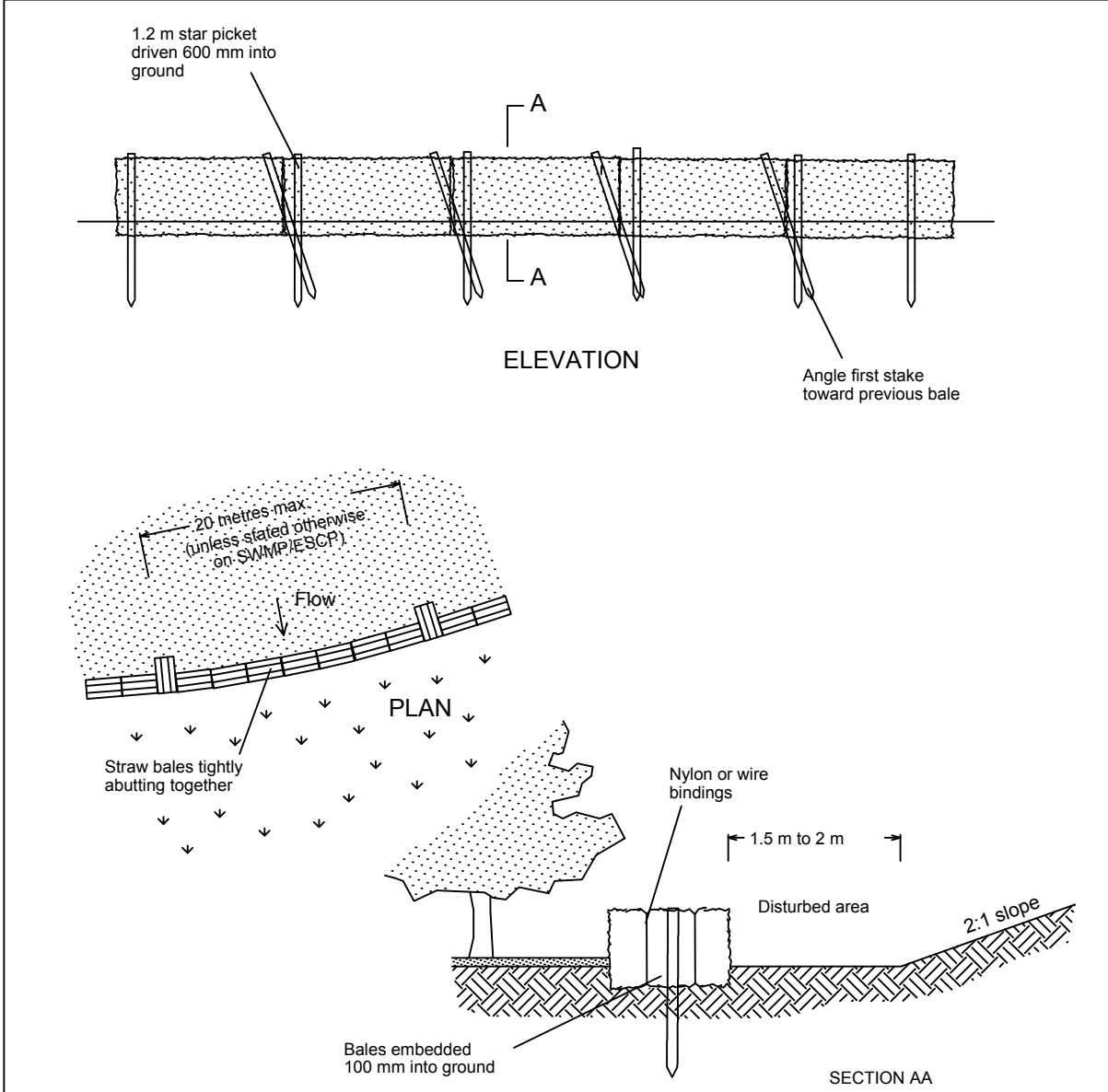
MESH AND GRAVEL INLET FILTER

SEDIMENT FENCE

SD 6-8

UTILITY CONSTRUCTION

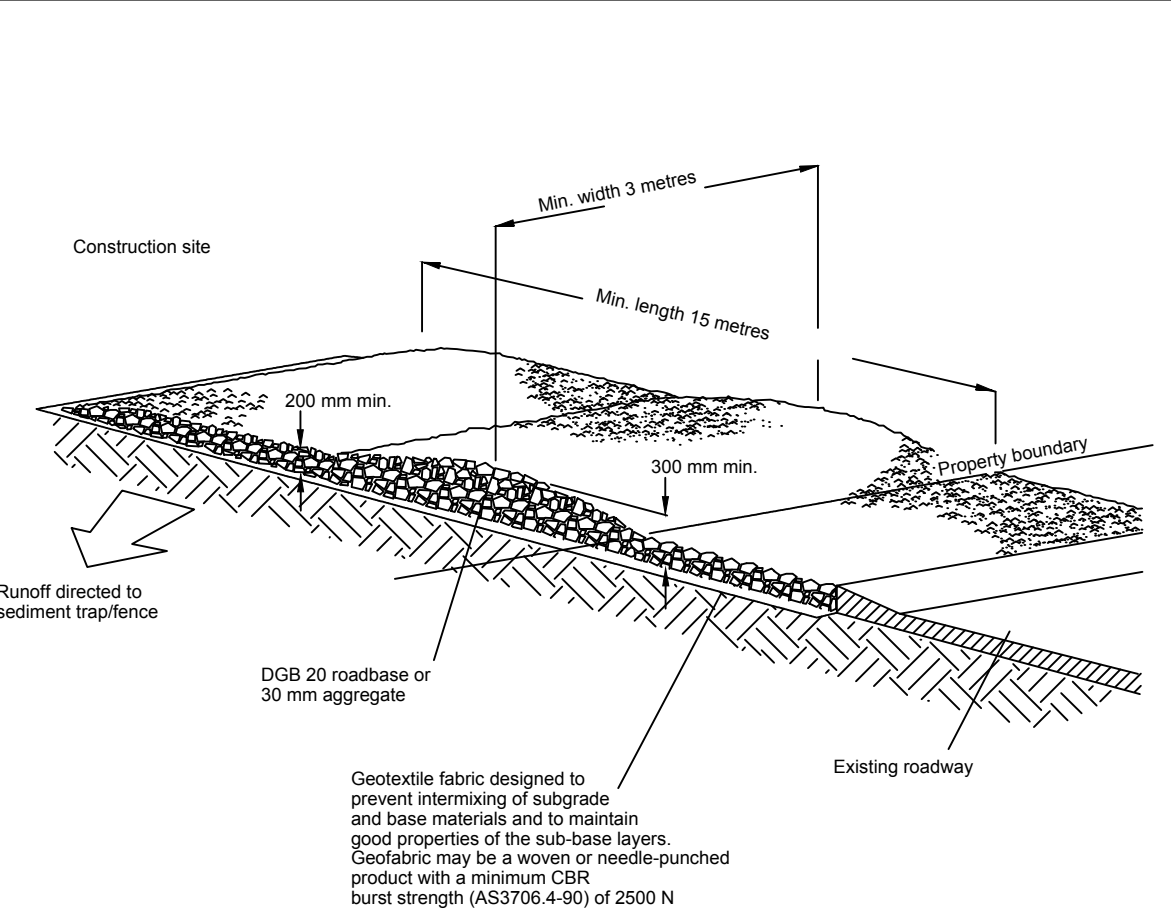
SD9-1



Construction Notes

1. Construct the straw bale filter as close as possible to being parallel to the contours of the site.
2. Place bales lengthwise in a row with ends tightly abutting. Use straw to fill any gaps between bales. Straws are to be placed parallel to ground.
3. Ensure that the maximum height of the filter is one bale.
4. Embed each bale in the ground 75 mm to 100 mm and anchor with two 1.2 metre star pickets or stakes. Angle the first star picket or stake in each bale towards the previously laid bale. Drive them 600 mm into the ground and, if possible, flush with the top of the bales. Where star pickets are used and they protrude above the bales, ensure they are fitted with safety caps.
5. Where a straw bale filter is constructed downslope from a disturbed batter, ensure the bales are placed 1 to 2 metres downslope from the toe.
6. Establish a maintenance program that ensures the integrity of the bales is retained - they could require replacement each two to four months.

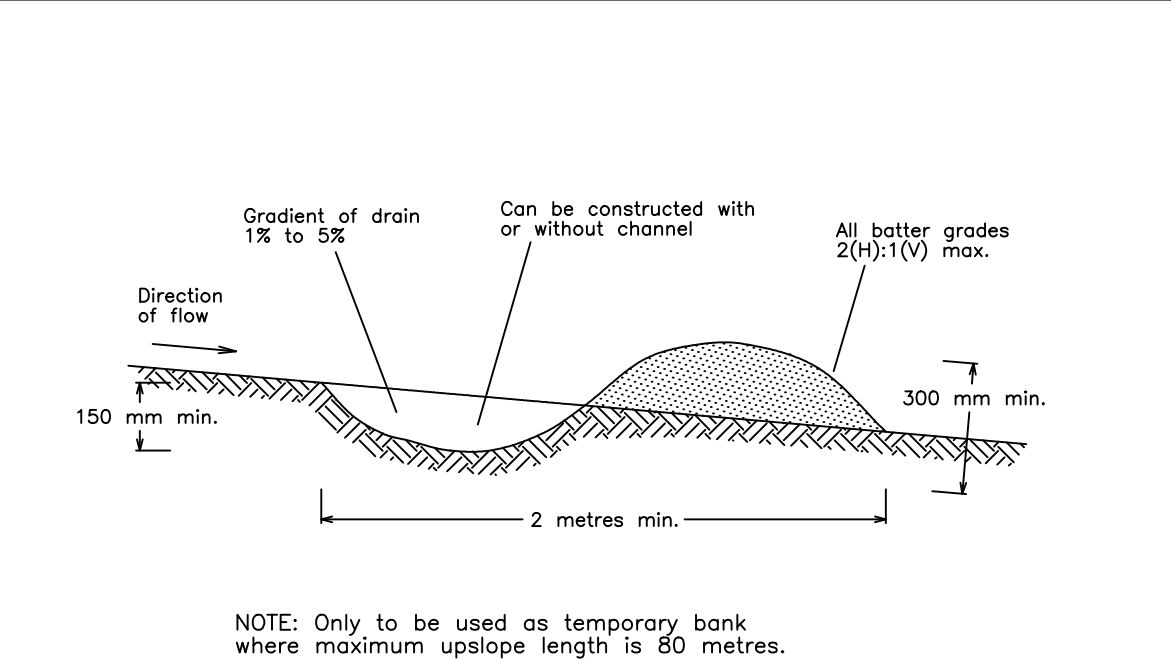
STRAW BALE FILTER



Construction Notes

1. Strip the topsoil, level the site and compact the subgrade.
2. Cover the area with needle-punched geotextile.
3. Construct a 200 mm thick pad over the geotextile using road base or 30 mm aggregate.
4. Ensure the structure is at least 15 metres long or to building alignment and at least 3 metres wide.
5. Where a sediment fence joins onto the stabilised access, construct a hump in the stabilised access to divert water to the sediment fence

STABILISED SITE ACCESS



Construction Notes

1. Build with gradients between 1 percent and 5 percent.
2. Avoid removing trees and shrubs if possible - work around them.
3. Ensure the structures are free of projections or other irregularities that could impede water flow.
4. Build the drains with circular, parabolic or trapezoidal cross sections, not V shaped.
5. Ensure the banks are properly compacted to prevent failure.
6. Complete permanent or temporary stabilisation within 10 days of construction.

DIVERSION SWALE

EROSION AND SEDIMENTATION CONTROL NOTES

1. UPON COMPLETION OF FINAL EARTHWORKS OR AFTER WRITTEN DIRECTION PRINCIPAL AUTHORISED PERSON, IMMEDIATE SILT CONSERVATION TREATMENTS SHALL BE APPLIED SO AS TO RENDER AREAS THAT HAVE BEEN DISTURBED, EROSION PROOF WITHIN 14-DAYS;
2. ALL PERIMETER AND SILTATION CONTROL MEASURES ARE TO BE THE FIRST STEP IN CLEARING OR EARTHWORKS;
3. THE AREA OVER ALL STORMWATER AND SEWER LINES NOT IN STREETS IS TO BE MULCHED AND SEEDED AS SOON AS POSSIBLE BUT NO LATER THAN WITHIN 14-DAYS AFTER BACKFILL;
4. NO MORE THAN 150-METRES OF TRENCH IS TO BE OPEN AT ANY ONE TIME;
5. AREAS OVER ELECTRICITY POWER, TELEPHONE AND GAS SUPPLY TRENCHES ARE TO BE SEEDED AND MULCHED AS SOON AS POSSIBLE BUT NO LATER THAN WITHIN 14-DAYS AFTER BACKFILL;
6. ALL TEMPORARY EARTH BERMIS, DIVERSION AND SEDIMENT BASIN EMBANKMENTS ARE TO BE TRACK ROLLED, SEEDED OR MULCHED FOR TEMPORARY VEGETATION COVER AS SOON AS THEY HAVE BEEN FORMED;
7. ALL FILLS ARE TO BE LEFT WITH A WINDROW AT LEAST 200 MM HIGH AT THE TOP OF THE SLOPE AT THE END OF EACH DAY'S EARTHWORKS, AND ALL EARTHWORK AREAS SHALL BE ROLLED EACH EVENING TO "SEAL" THE EARTHWORKS;
8. ALL FINAL EROSION PREVENTION MEASURES, INCLUDING ESTABLISHMENT OF GRASSING, ARE TO BE COMPLETED PRIOR TO THE SITE FINAL INSPECTION;
9. STABILISATION OF ALL CUT AND FILL SLOPES SHALL BE COMMENCED WITHIN 14-DAYS OF COMPLETION OF FORMATION;
10. A STRIP OF TURF IS TO BE PLACED IMMEDIATELY BEHIND THE KERB AND GUTTER ON ALL NEW ROADS AND AT ADDITIONAL LOCATIONS AS DETERMINED BY PRINCIPAL AUTHORISED PERSON;
11. ALL TOPSOIL IS TO BE STOCKPILED ON SITE (AWAY FROM TREES AND DRAINAGE LINES). MEASURES SHALL BE APPLIED TO PREVENT EROSION OF THE STOCKPILES; AND
12. ESTABLISHMENT OF FIRE BREAKS SHALL BE CARRIED OUT IN CONSULTATION WITH A FIRE CONTROL OFFICER.

PROJECT

Cranbrook School
Redevelopment

CLIENT

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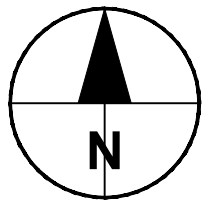
60549969

SHEET TITLE

EROSION AND SEDIMENT CONTROL
DETAILS

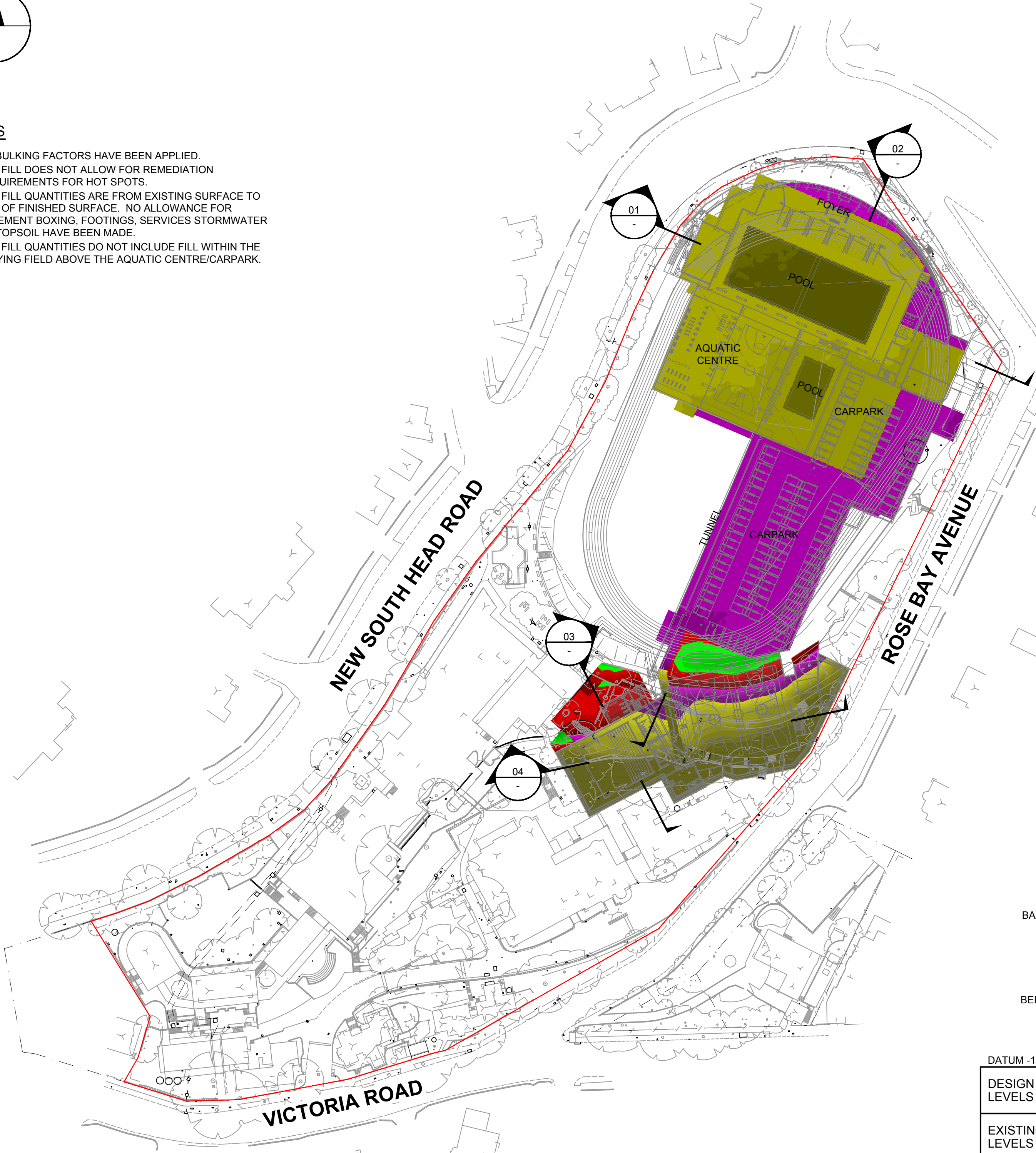
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NOTES

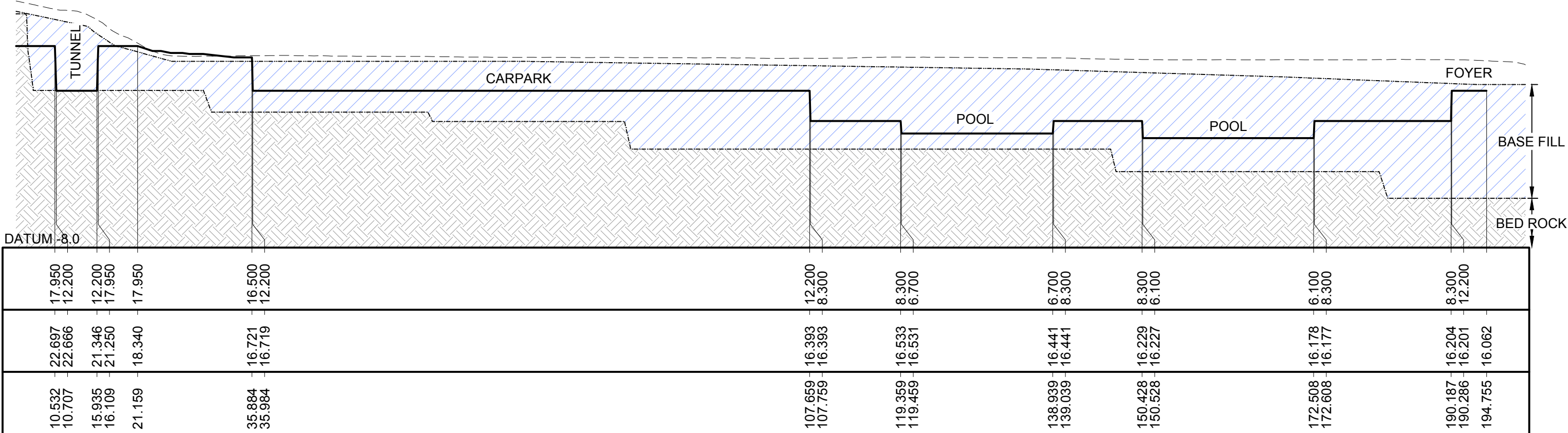
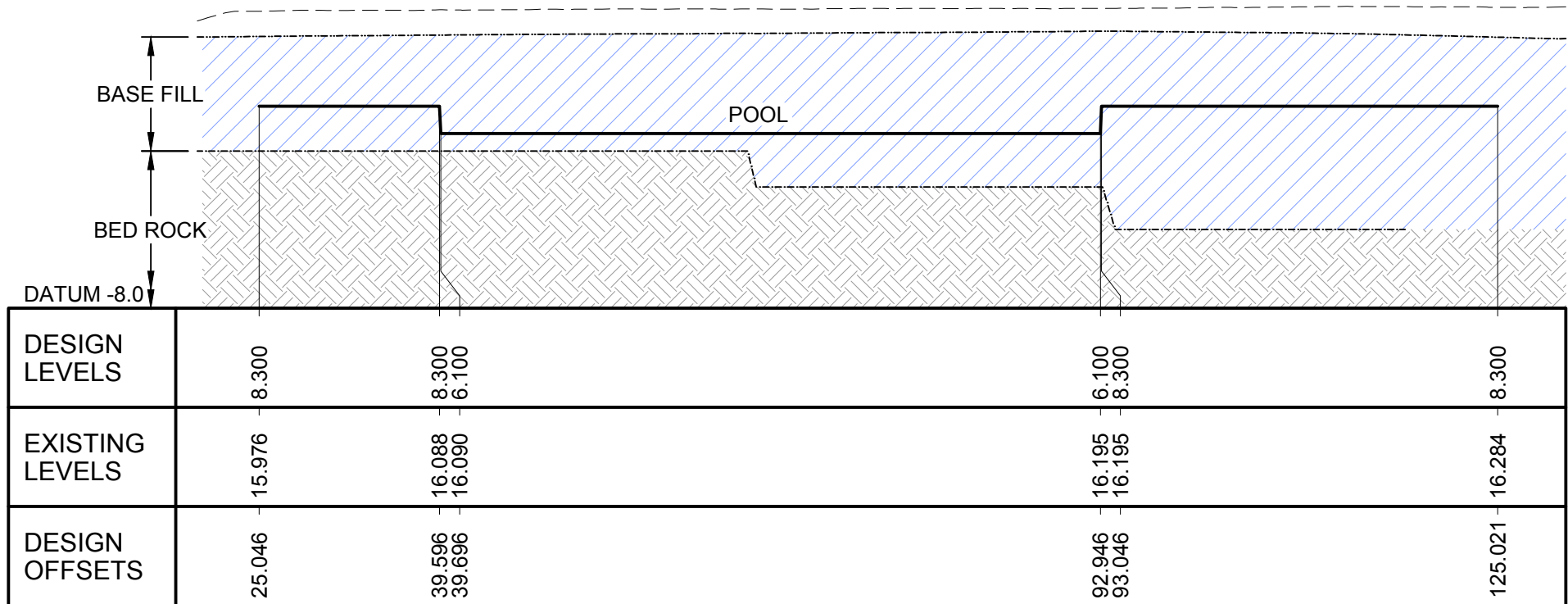
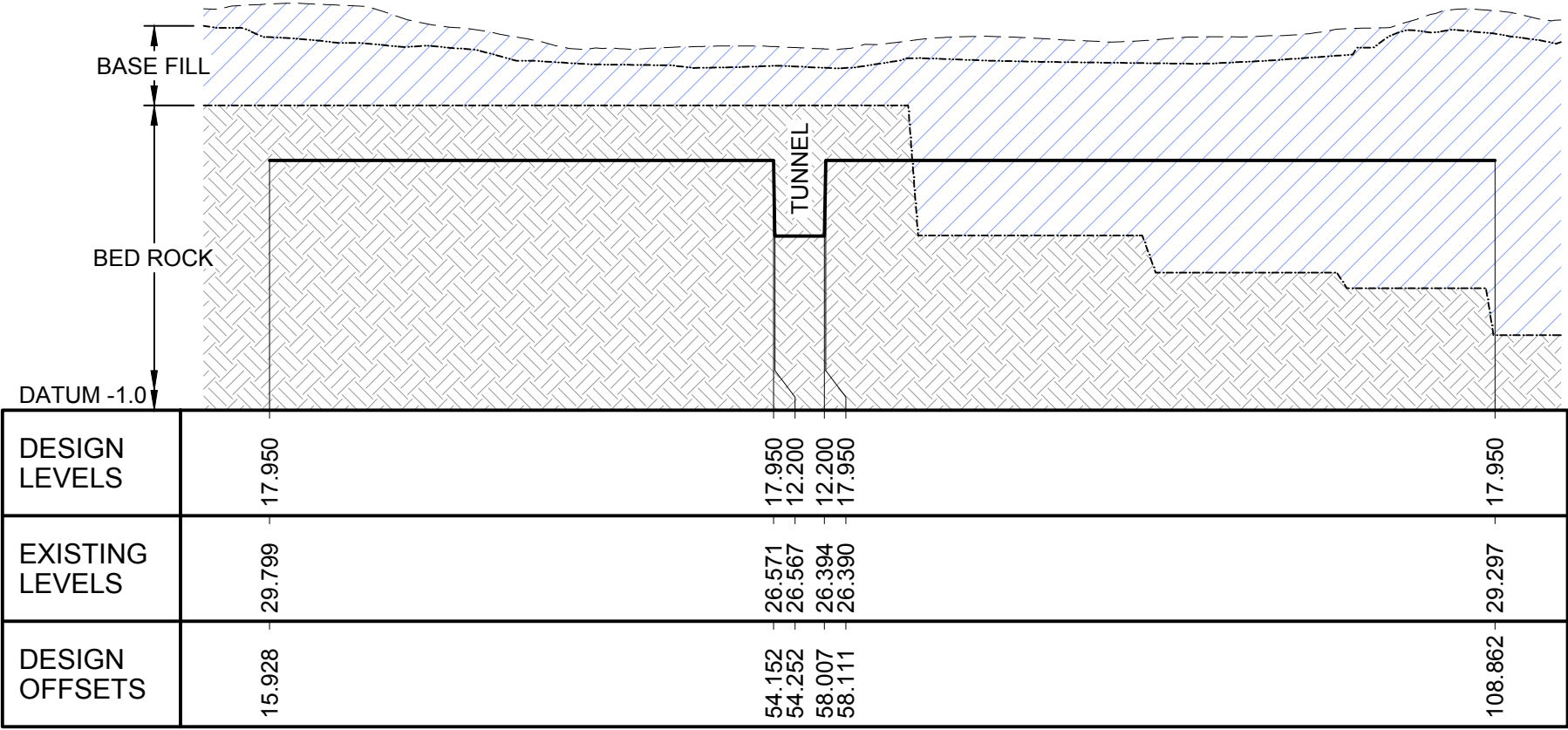
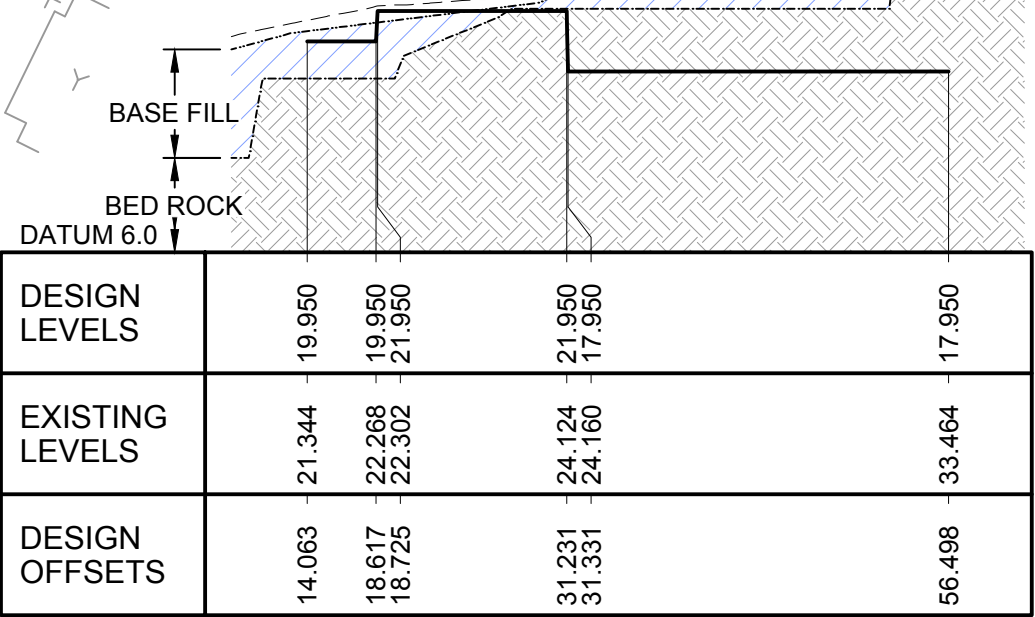
1. NO BULKING FACTORS HAVE BEEN APPLIED.
2. CUT FILL DOES NOT ALLOW FOR REMEDIATION REQUIREMENTS FOR HOT SPOTS.
3. CUT FILL QUANTITIES ARE FROM EXISTING SURFACE TO TOP OF FINISHED SURFACE. NO ALLOWANCE FOR PAVEMENT BOXING, FOOTINGS, SERVICES STORMWATER OR TOPSOIL HAVE BEEN MADE.
4. CUT FILL QUANTITIES DO NOT INCLUDE FILL WITHIN THE PLAYING FIELD ABOVE THE AQUATIC CENTRE/CARPARK.



TOTAL CUT AND FILL VOLUME			
	CUT (m³)	FILL (m³)	BALANCE
AQUATIC CENTRE	-57972	0	-57972
CARPARK	-16166	0	-16166
TUNNEL	-4028	0	-4028
WMH	-26106	182	-25925
TOTAL BALANCE	-104273	182	-104091

BASE FILL AND BED ROCK			
	BASE FILL	BED ROCK	TOTAL
AQUATIC CENTRE	-45263	0	-45263
CARPARK	-13196	-1	-13197
TUNNEL	-1733	-1884	-3617
WMH	-14519	-6404	-20924
TOTAL	-74712	-8289	-83001

LEGEND CUT AND FILL			
Lower_value	Upper_value	Colour	
-300	to -10	m	
-10.0	to -9.5	m	
-9.5	to -9.0	m	
-9.0	to -8.5	m	
-8.5	to -8.0	m	
-8.0	to -7.5	m	
-7.5	to -7.0	m	
-7.0	to -6.5	m	
-6.5	to -6.0	m	
-6.0	to -5.5	m	
-5.5	to -5.0	m	
-5.0	to -4.5	m	
-4.5	to -4.0	m	
-4.0	to -3.5	m	
-3.5	to -3.0	m	
-3.0	to -2.5	m	
-2.5	to -2.0	m	
-2.0	to -1.5	m	
-1.5	to -1.0	m	
-1.0	to -0.5	m	
-0.5	to 0	m	
0	to 0.5	m	
0.5	to 1.0	m	
1.0	to 1.5	m	
1.5	to 2.0	m	
2.0	to 2.5	m	
2.5	to 3.0	m	
3.0	to 3.5	m	
3.5	to 4.0	m	
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4.5	to 5.0	m	



PROJECT

Cranbrook School
Redevelopment

CLIENT

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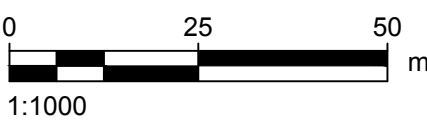
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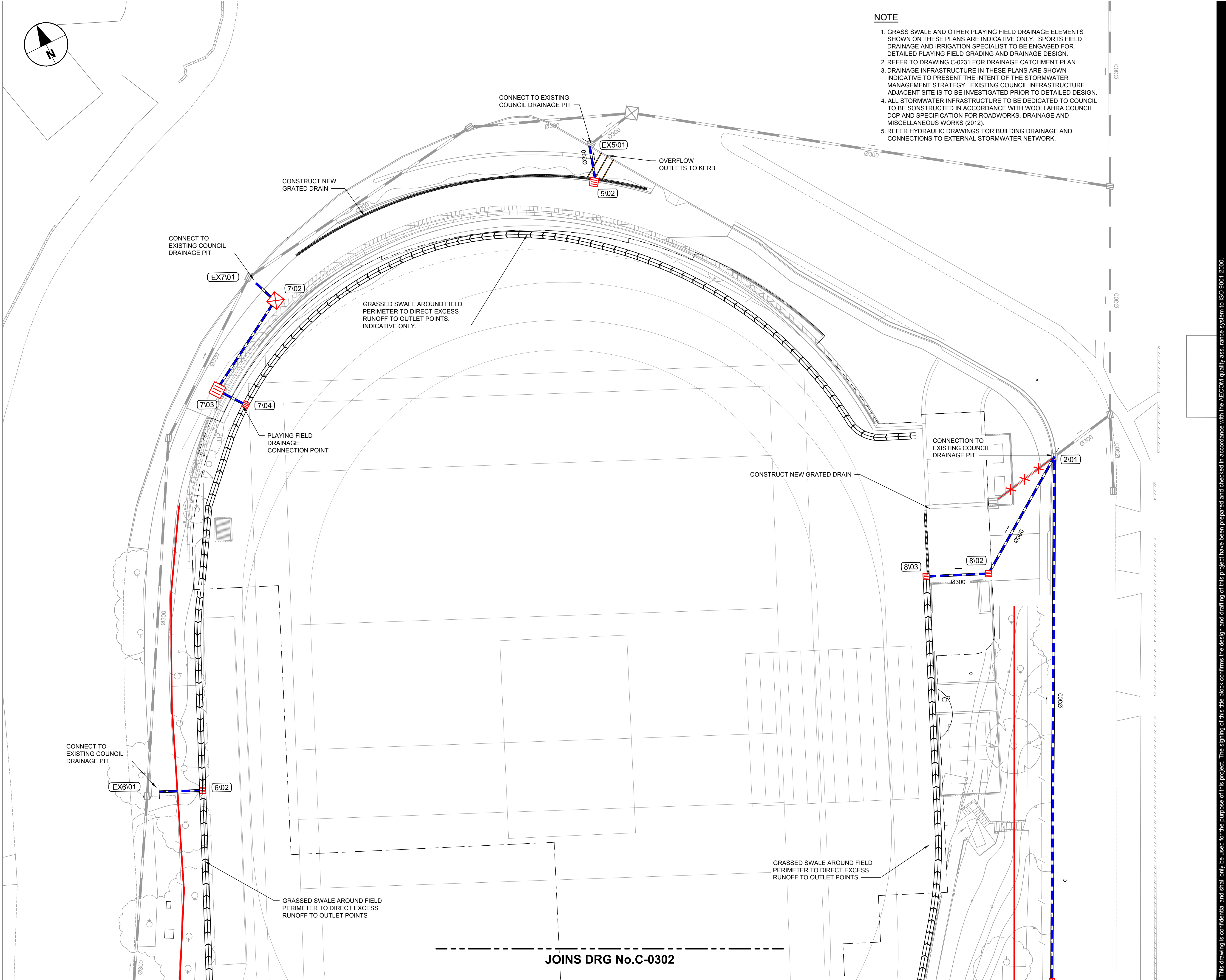
60549969

SHEET TITLE

BOXING PLAN

SHEET NUMBER

60549969-SHT-00-0000-C-0221



- NOTE**
1. GRASS SWALE AND OTHER PLAYING FIELD DRAINAGE ELEMENTS SHOWN ON THESE PLANS ARE INDICATIVE ONLY. SPORTS FIELD DRAINAGE AND IRRIGATION SPECIALIST TO BE ENGAGED FOR DETAILED PLAYING FIELD GRADING AND DRAINAGE DESIGN.
 2. REFER TO DRAWING C-0231 FOR DRAINAGE CATCHMENT PLAN.
 3. DRAINAGE INFRASTRUCTURE IN THESE PLANS ARE SHOWN INDICATIVE TO PRESENT THE INTENT OF THE STORMWATER MANAGEMENT STRATEGY. EXISTING COUNCIL INFRASTRUCTURE ADJACENT SITE IS TO BE INVESTIGATED PRIOR TO DETAILED DESIGN.
 4. ALL STORMWATER INFRASTRUCTURE TO BE DEDICATED TO COUNCIL TO BE SONSTRUCTED IN ACCORDANCE WITH WOOLLAHRA COUNCIL DCP AND SPECIFICATION FOR ROADWORKS, DRAINAGE AND MISCELLANEOUS WORKS (2012).
 5. REFER HYDRAULIC DRAWINGS FOR BUILDING DRAINAGE AND CONNECTIONS TO EXTERNAL STORMWATER NETWORK.



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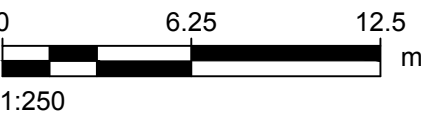
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LEGEND

- PROPOSED LOT BOUNDARY
- DRAINAGE LINE, SIZE AND FLOW DIRECTION
- DRAINAGE PITS
- DRAINAGE NUMBERS
- SUBSOIL DRAIN
- EXISTING DRAINAGE LINE AND PIT
- GRATED TRENCH DRAIN
- GRASSED SWALE
- EXISTING DRAINAGE TO BE REMOVED

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SHEET TITLE

DRAINAGE
PLAN
SHEET 1

SHEET NUMBER

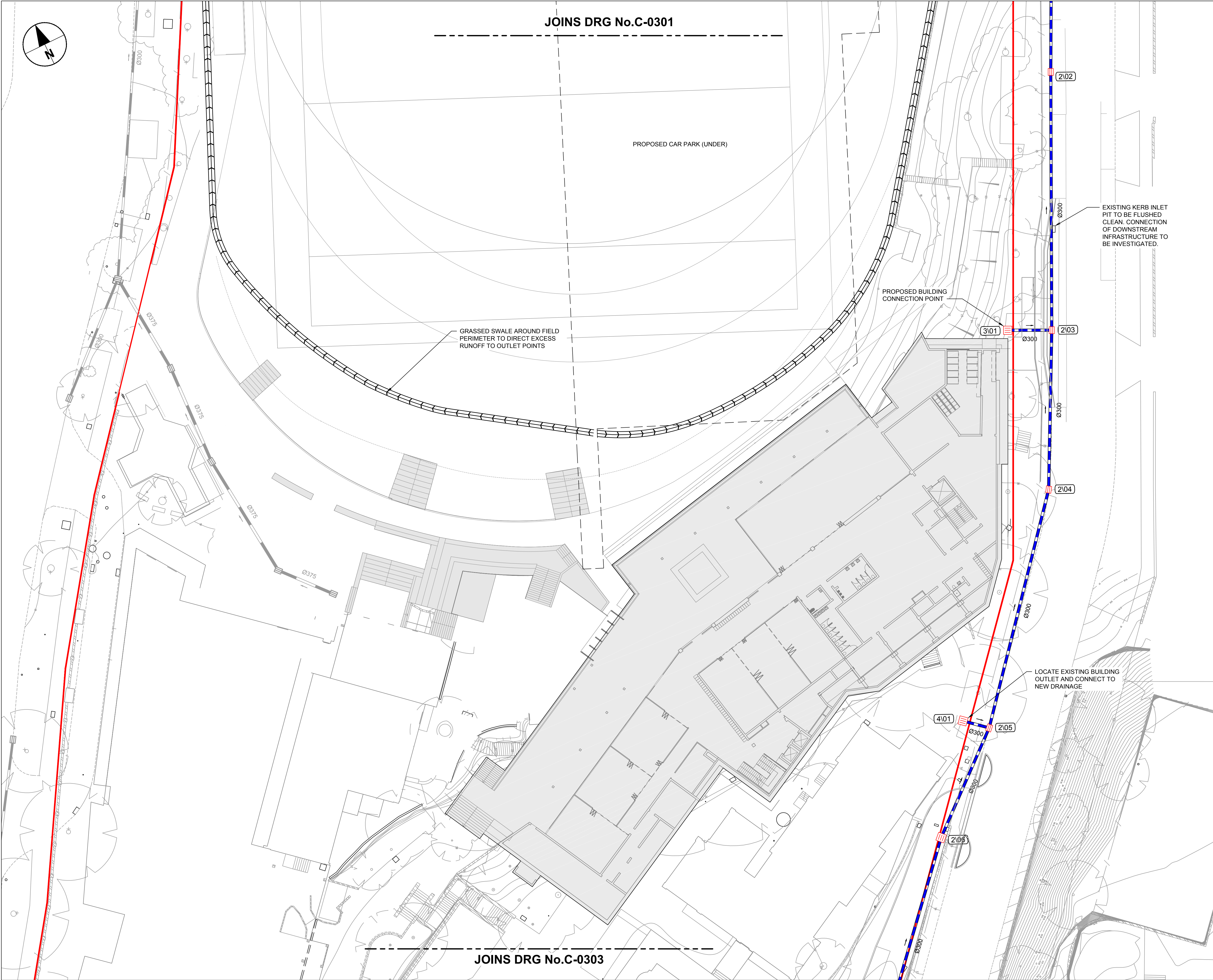
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ISO A1 594mm x 841mm

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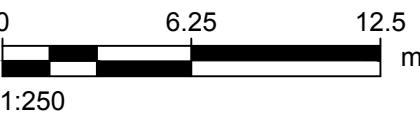
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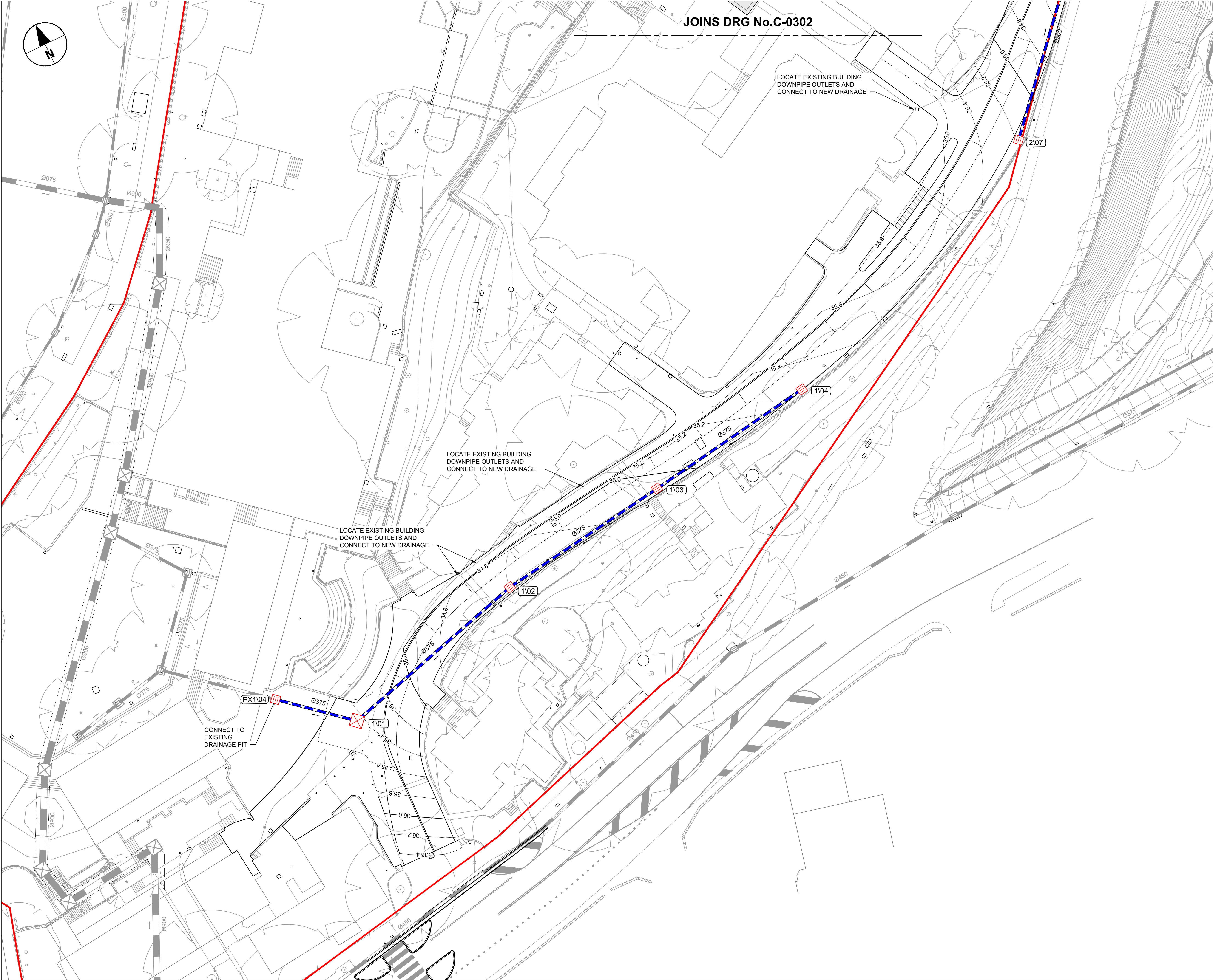
DRAINAGE
PLAN
SHEET 2

SHEET NUMBER

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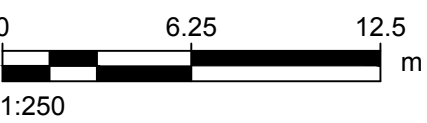
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LEGEND

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- DRAINAGE LINE, SIZE AND FLOW DIRECTION
- DRAINAGE PITS
- DRAINAGE NUMBERS
- SUBSOIL DRAIN
- EXISTING DRAINAGE LINE AND PIT
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- GRASSED SWALE
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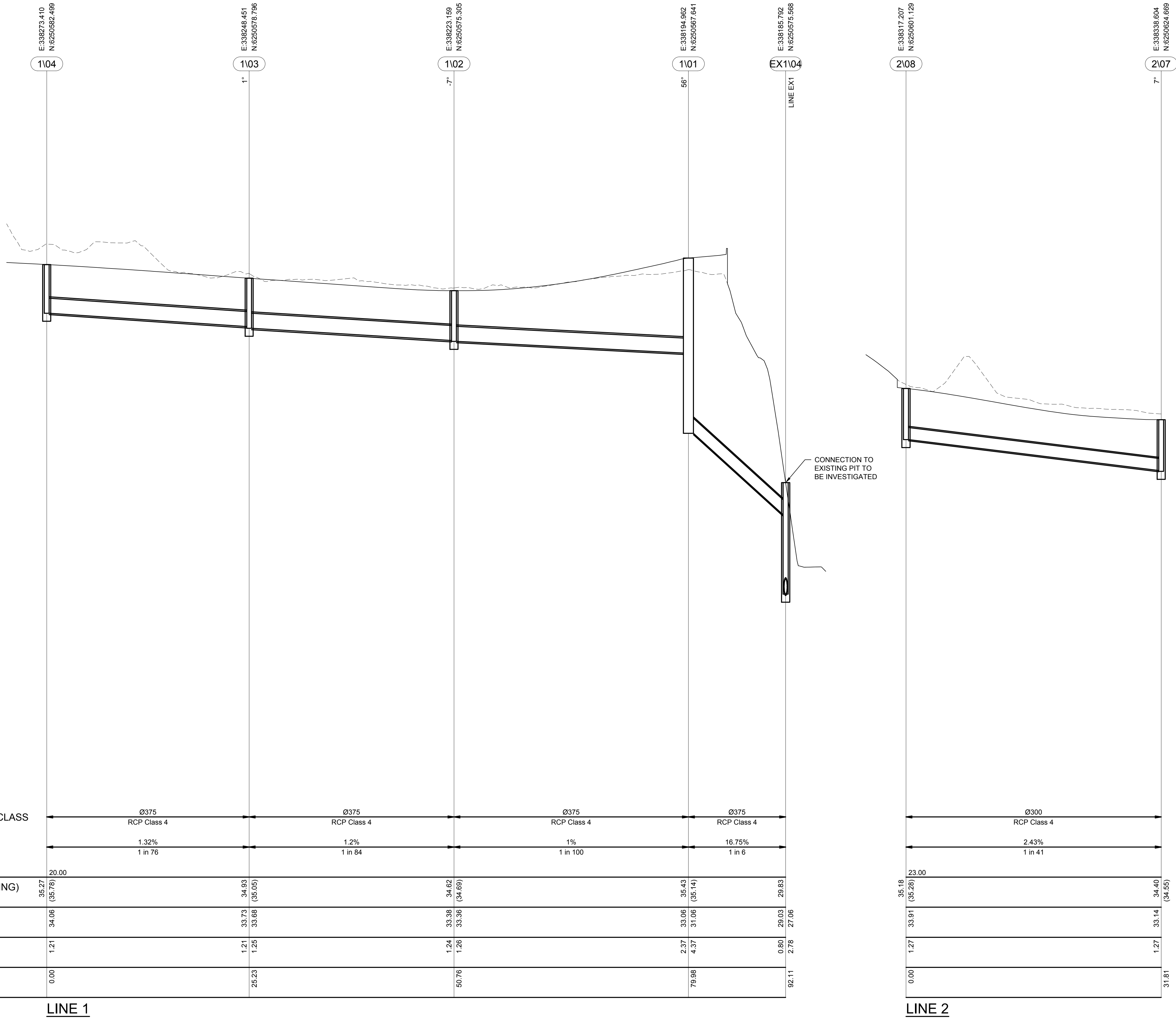
SHEET TITLE

DRAINAGE
PLAN
SHEET 3

SHEET NUMBER

60549969-SHT-00-0000-C-0303

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Redevelopment

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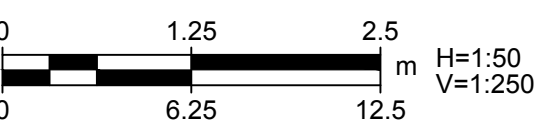
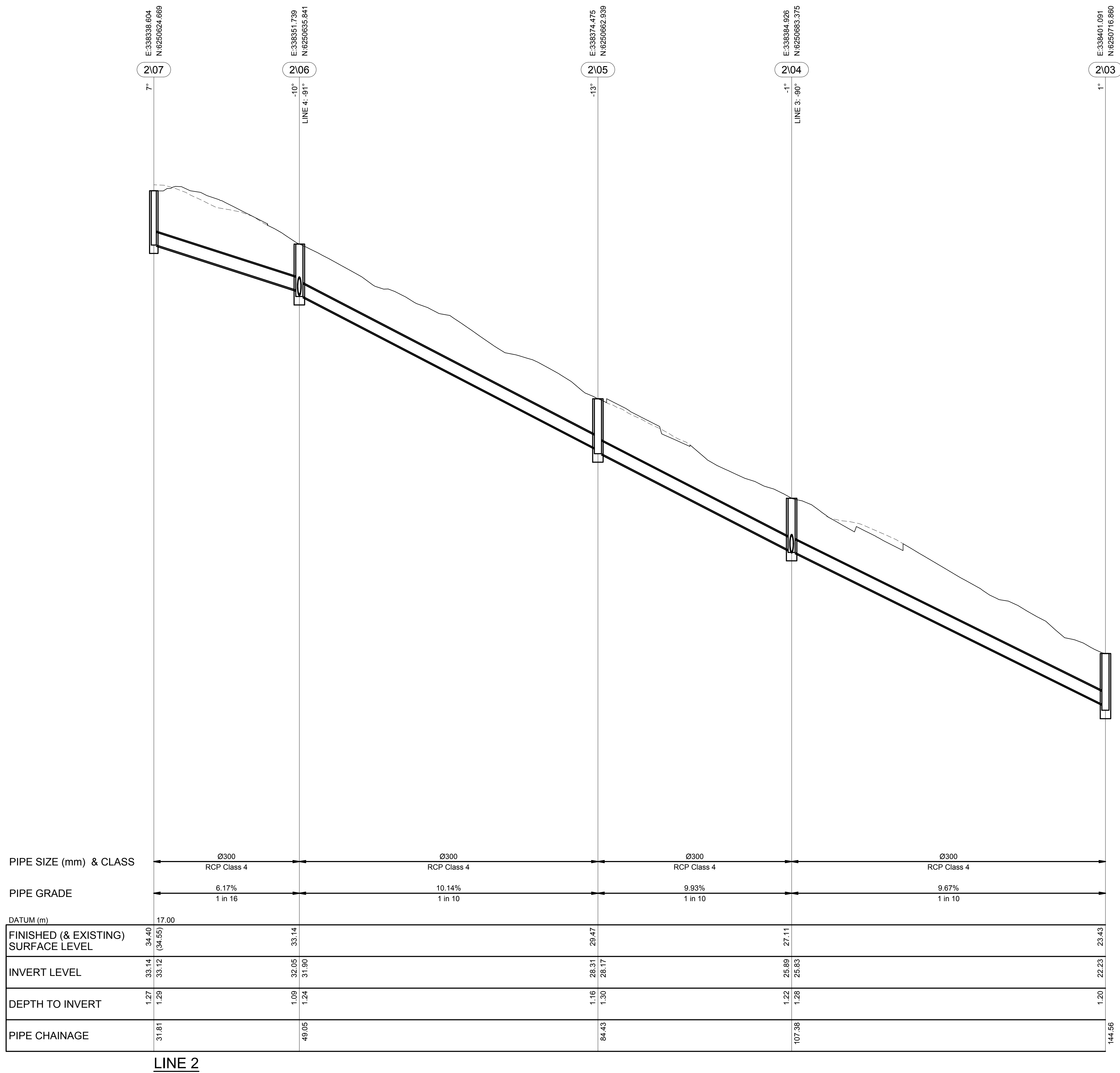
Cranbrook School

5 Victoria Road
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02 9327 90000 tel
www.cranbrook.nsw.edu.au
Prepared for:
CRANBROOK SCHOOL
A.B.N 000 007 723

CONSULTANT

AECOM Australia Pty Ltd
A.B.N 20 093 846 925
www.aecom.com

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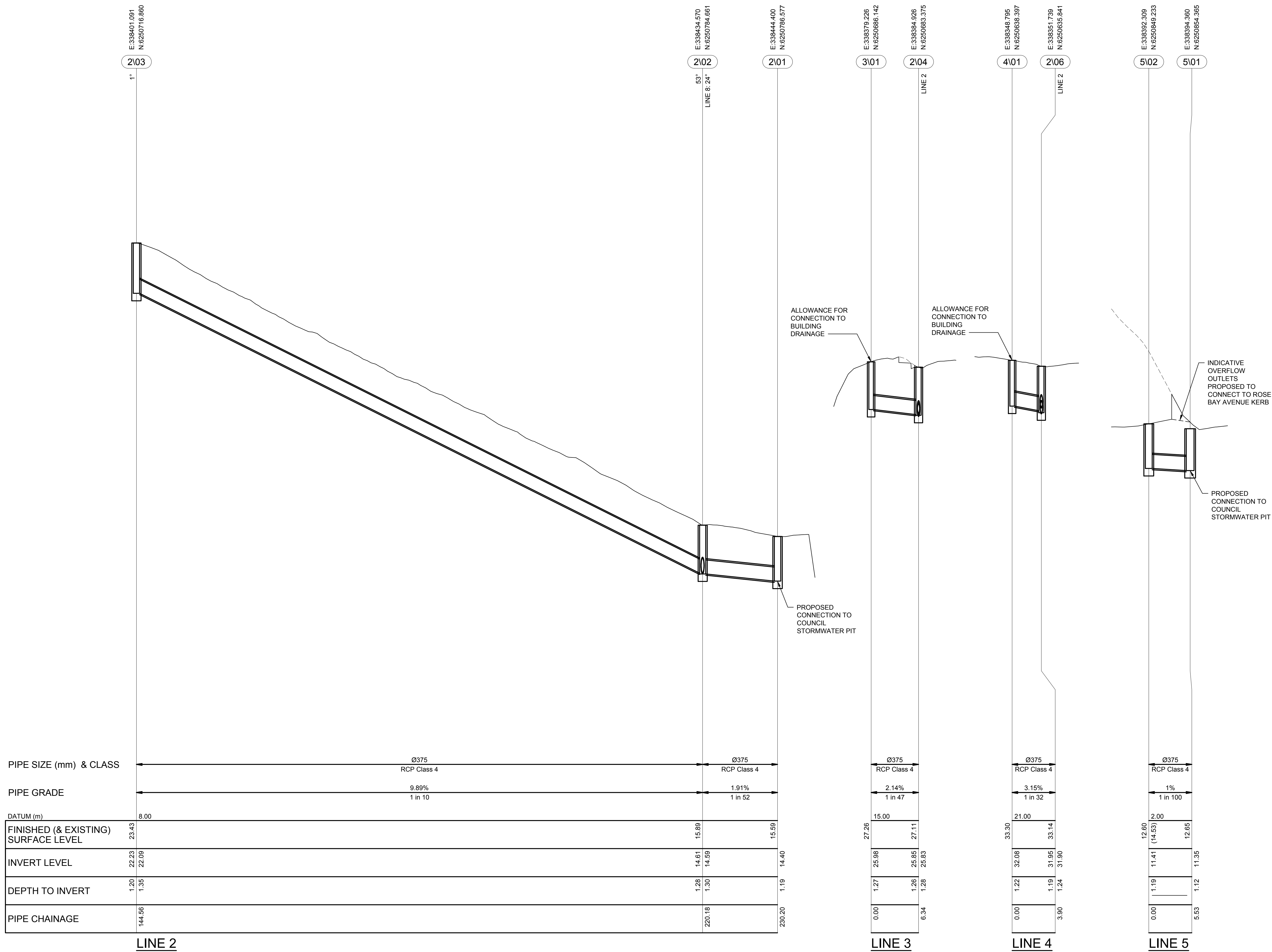
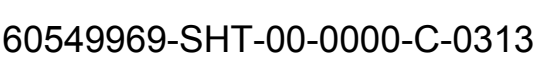


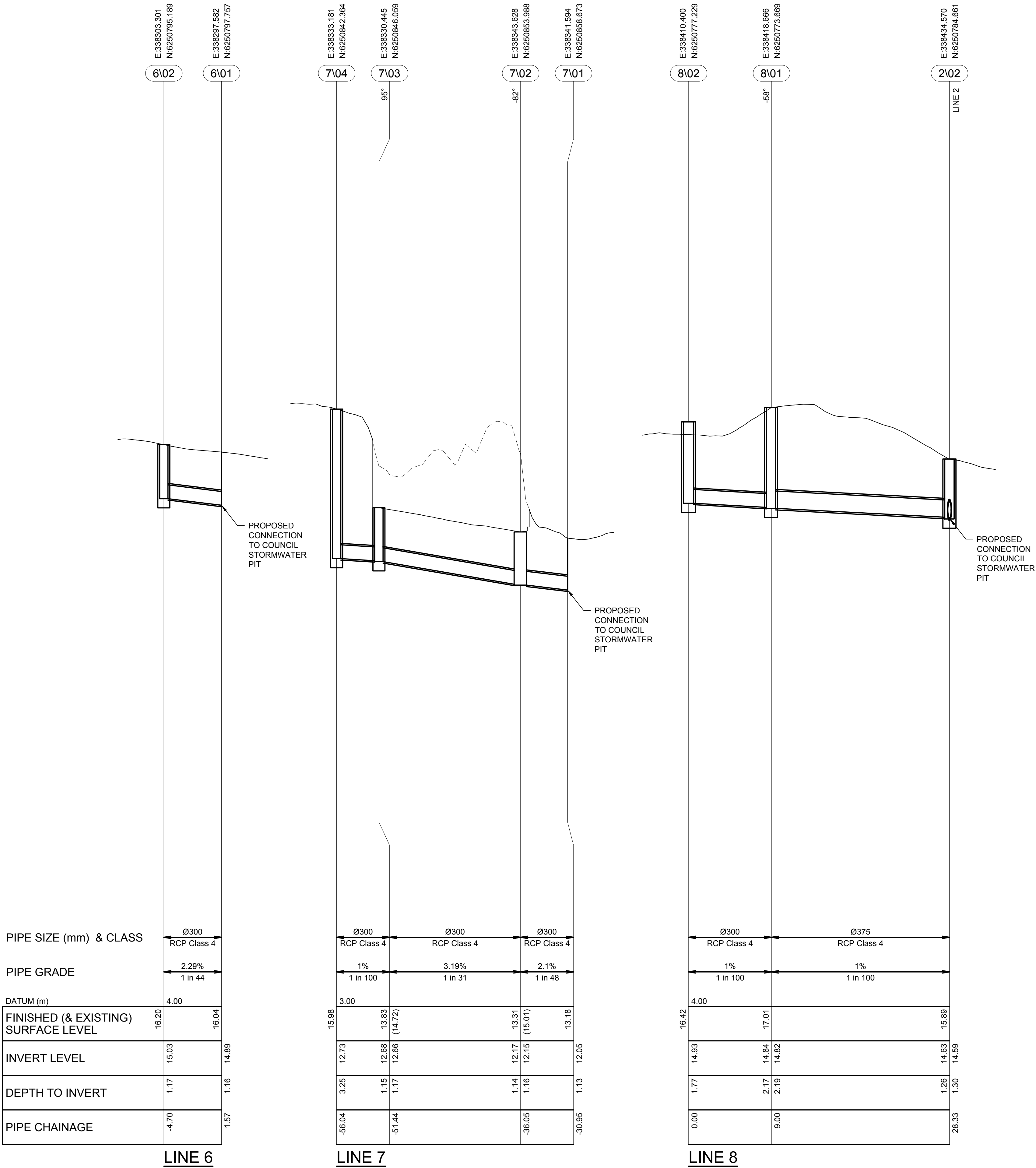
JW	WH	DF
DESIGNER	CHECKED	APPROVED

ISSUE/REVISION		
1	24.11.2017	SSDA ISSUE - DRAFT
I/R	DATE	DESCRIPTION

KEY PLAN

60549969-SHT-00-0000-C-0312





AECOM

PROJECT

Cranbrook School Redevelopment

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REGISTRATION

SCALE BAR (A1)

PROJECT MANAGEMENT INITIALS

ISSUE/REVISION

KEY PLAN

PROJECT NUMBER

60549969

SHEET TITLE

DRAINAGE LONGITUDINAL SECTIONS
SHEET 4

SHEET NUMBER

60549969-SHT-00-0000-C-0314

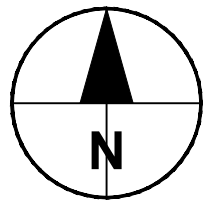
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PROJECT

Cranbrook School
Redevelopment

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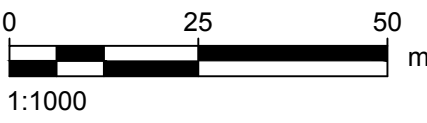
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LEGEND

- PROPOSED LOT BOUNDARY
- DRAINAGE LINE AND FLOW DIRECTION
- DRAINAGE PITS
- EXISTING DRAINAGE LINE
- CATCHMENT AREA
- CATCHMENT FLOW ARROWS

REGISTRATION

SCALE BAR (A1)



PROJECT MANAGEMENT INITIALS

JW	WH	DF
DESIGNER	CHECKED	APPROVED

ISSUE/REVISION

1	24.11.2017	SSDA ISSUE - DRAFT
I/R	DATE	DESCRIPTION

KEY PLAN

PROJECT NUMBER

60549969

SHEET TITLE

DRAINAGE
CATCHMENT PLAN

SHEET NUMBER

60549969-SHT-00-0000-C-0321

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