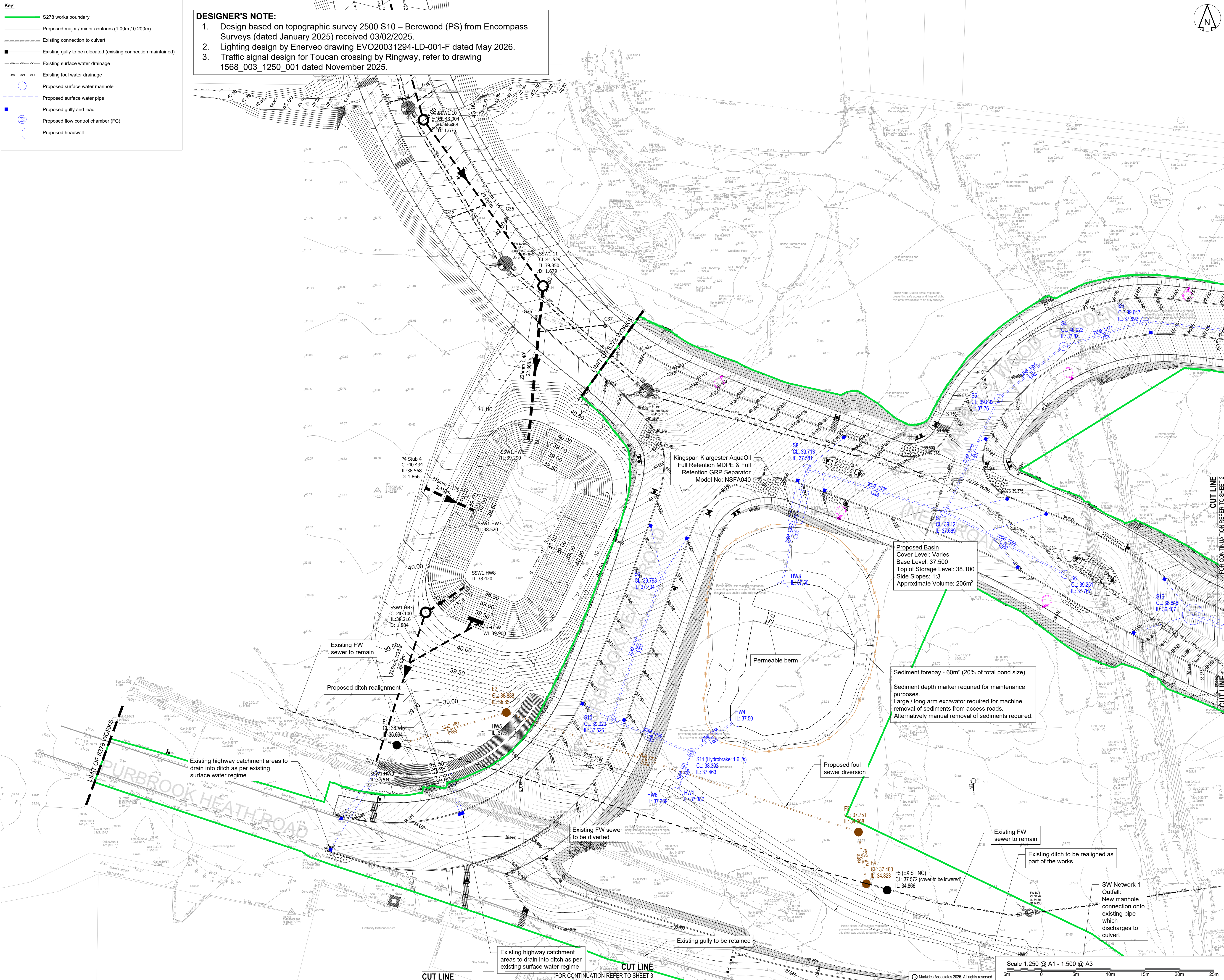
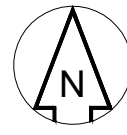


Key:

- S278 works boundary
- Proposed major / minor contours (1.00m / 0.200m)
- Existing connection to culvert
- Existing gully to be relocated (existing connection maintained)
- Existing surface water drainage
- Existing foul water drainage
- Proposed surface water manhole
- Proposed surface water pipe
- Proposed gully and lead
- Proposed flow control chamber (FC)
- Proposed headwall

DESIGNER'S NOTE:

- Design based on topographic survey 2500 S10 – Berewood (PS) from Encompass Surveys (dated January 2025) received 03/02/2025.
- Lighting design by Envereo drawing EVO20031294-LD-001-F dated May 2026.
- Traffic signal design for Toucan crossing by Ringway, refer to drawing 1568_003_1250_001 dated November 2025.



CDM - RESIDUAL HAZARDS	
1	Existing Utilities
2	Risk of falls from heights
3	Overhead Cables
4	Unexploded Ordnance
5	Existing Culvert

NOTE: The above hazards do not include every hazard or assumption, but identify significant residual construction hazards that are not likely to be obvious to a competent contractor and those that could be difficult to manage effectively. Refer to the designer's risk documentation 24314-MA-XX-XX-RP-C-S278 DRA.

- Notes:
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RELEVANT SPECIFICATION, INCLUDING RISK ASSESSMENTS AND ALL OTHER RELATED DRAWINGS ISSUED BY THE ENGINEER.
 - ALL DIMENSIONS, LEVELS AND CO-ORDINATES ARE TO BE CHECKED ON SITE AND THE ENGINEER NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES PROPER TO THE COMMENCEMENT OF WORKS.
 - NO DEVIATION FROM THE DETAILS SHOWN ON THIS DRAWING IS PERMITTED WITHOUT PRIOR PERMISSION FROM THE ENGINEER.
 - PROPOSED DESIGN HAS BEEN UNDERTAKEN USING TOPOGRAPHICAL SURVEYS: 2500 S10 - BEREWOOD (PS) FILE FROM ENCOMPASS SURVEYS DATED JANUARY 2025 RECEIVED 2025-02-03.
 - THE CONTRACTOR SHALL UNDERTAKE REQUIRED MATERIALS TESTING AND SHALL INCLUDE THE COST OF TESTING IN THE TENDER.
 - ALL EXISTING DRAINAGE TO BE RETAINED SHOULD BE SURVEYED AND REPAIRED IN ACCORDANCE WITH BS EN 1610:2015.
 - ALL WORKS TO BE CARRIED OUT TO SEWERAGE SECTOR GUIDANCE IN RELATION TO THE ADOPTION OF SEWERAGE ASSETS BY SEWERAGE COMPANIES IN ENGLAND AND BUILDING REGULATIONS PART H AND IN LINE WITH THE CIRIA SUDS MANUAL (C753).
 - ALL ABANDONED SEWERS, MANHOLES, GULLIES AND ASSOCIATED PIPEWORK TO BE EXCAVATED AND DISPOSED OF OFFSITE, REMAINING VOID BACKFILLED WITH COMPACT TYPE 1 GRANULAR MATERIAL. REDUNDANT CONNECTIONS TO RETAINED SEWERS TO BE MADE GOOD.
 - DETAIL OF THE PROPOSED CONNECTION FROM THE PROPOSED DRAINAGE TO THE EXISTING SEWER TO BE CONFIRMED ON SITE. ANY IDENTIFIED DEFECTS OF EXISTING DRAINAGE CONNECTIONS WITHIN THE PROPOSED S278 BOUNDARY ARE TO BE REPAIRED AS PART OF THE S278 WORKS.
 - ALL PIPEWORK HAS A CLASS S BED AND SURROUND UNLESS MINIMUM COVER OF 1.2M IN ROAD AREAS AND 0.9M IN PEDESTRIAN AREAS IS NOT ACHIEVED. IN THIS CASE PIPES SHOULD EITHER HAVE A TYPE Z BED AND SURROUND OR BE PROTECTED BY A 150MM THICK CONCRETE SLAB.
 - STATED COVER LEVELS ARE FOR GUIDANCE ONLY AND SHALL BE SET TO THE FINISHED LEVELS.
 - MANHOLE COVER AND FRAMES WITHIN LANDSCAPED AREAS AND FOOTPATHS ARE B125 RATED TO BS EN 124:2015.
 - MANHOLE COVER AND FRAMES AND GULLIES WITHIN VEHICULAR LOADED AREAS ARE D400 RATED TO BS EN 124:2015.
 - ALL PIPE SIZES STATED ARE NOMINAL INTERNAL DIAMETERS IN MILLIMETRES.
 - ANY RELEVANT EXISTING SEWER INVERT LEVELS AND CONDITION TO BE CONFIRMED ONSITE BY THE CONTRACTOR.
 - ALL MANHOLE AND INSPECTION COVER AND FRAMES WITHIN EXTERNAL BLOCK PAVED AREAS AND SOFT LANDSCAPING TO BE RECESSED AND INLAID WITH RELEVANT PROPOSED SURFACE FINISH.
 - ALL DRAINS TO BE TESTED PRIOR TO BACKFILLING, AFTER BACKFILLING AND UPON COMPLETION OF HARD LANDSCAPING. ALL DRAINS TO BE CCTV SURVEYED PRIOR TO HARD LANDSCAPING.
 - IN SITUATIONS WHERE TRAFFIC LOADING IS ANTICIPATED TO BE HEAVIER THAN WOULD OCCUR ON A TYPICAL RESIDENTIAL ESTATE DISTRIBUTOR ROAD (I.E. BRAKING OR TURNING NEAR A JUNCTION), A HIGHER SPECIFICATION COVER (E600) SHOULD BE USED.
 - WHERE PIPES ARE CROSSING, NON-PERMEABLE PLASTIC MEMBRANE TO BE USED BETWEEN PIPES FOR PROTECTION TO ELIMINATE AND CHANCES OF CROSS CONTAMINATION.
 - PIPES OF DIFFERENT DIAMETERS ENTERING MANHOLES SHOULD BE INSTALLED WITH SOFFITS AT THE SAME LEVEL UNLESS SPECIFICALLY SHOWN OTHERWISE ON THE DRAWINGS.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE FOLLOWING INFORMATION:
GENERAL ARRANGEMENT DRAWING SHEETS 1, 2 & 3
24314-MA-XX-XX-DR-C-0101-0103
CONSTRUCTION DETAILS DRAWINGS
24314-MA-XX-XX-DR-C-0550-0551

Revision History					
Rev	Comment	Current Revision	By	Chkd	Appr
P05	FOR APPROVAL		LB	HJ	HJ
P04	FOR APPROVAL		LB	HJ	HJ
P03	FOR APPROVAL		OT	GS	HJ
P02	FOR APPROVAL		BB	SS	HJ
P01	FOR APPROVAL		BB	SS	HJ

S4 - FOR APPROVAL

GRAINGER PLC

MARKIDES ASSOCIATES
TRANSPORT PLANNING AND ENGINEERING

Project: **BEREWOOD, WATERLOOVILLE SOUTHERN ACCESS JUNCTION**

Drawing Title: **SECTION 278 PROPOSED SURFACE WATER DRAINAGE SHEET 1**

Markides Associates reference: 24314 1:250 @A1

24314-MA-XX-XX-DR-C-0501-S4 - P05