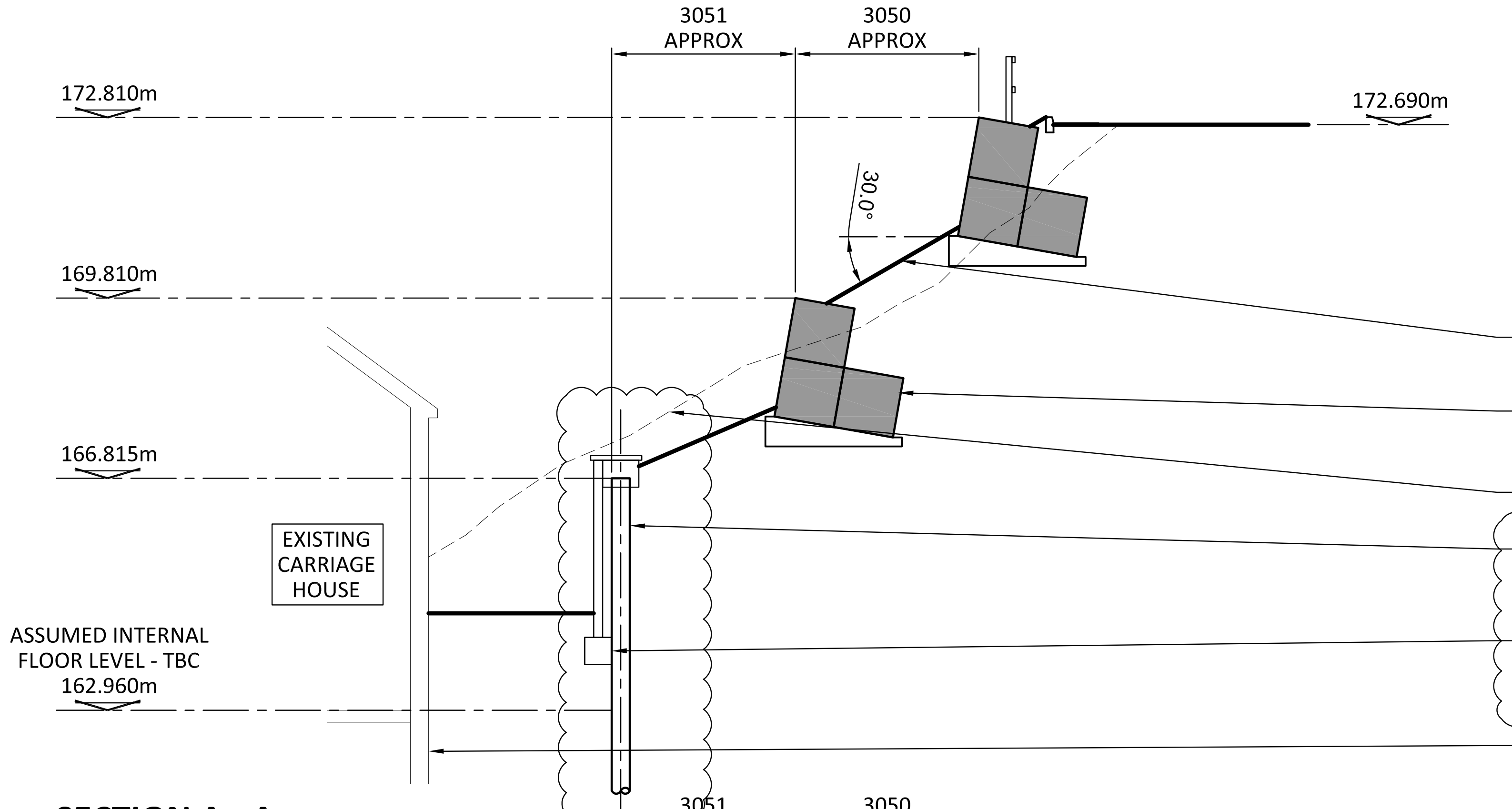


THE OVERALL SLOPE STABILITY HAS BEEN ASSESSED BY GEOASSIST AND THE SOLUTION ON THIS DRAWING PROPOSED TO STABILISE THE EMBANKMENT. DEPARTURE FROM THIS DESIGN ONLY PERMITTED FOLLOWING RECEIPT OF WRITTEN APPROVAL FROM GEOASSIST.

MAXIMUM SLOPE OF INFILL BETWEEN GABION BASKETS.

REFER TO TYPICAL GABION BASKET RETAINING WALL DETAIL FOR CONSTRUCTION DETAILS.

APPROX. PROFILE OF FAILED SLOPE.

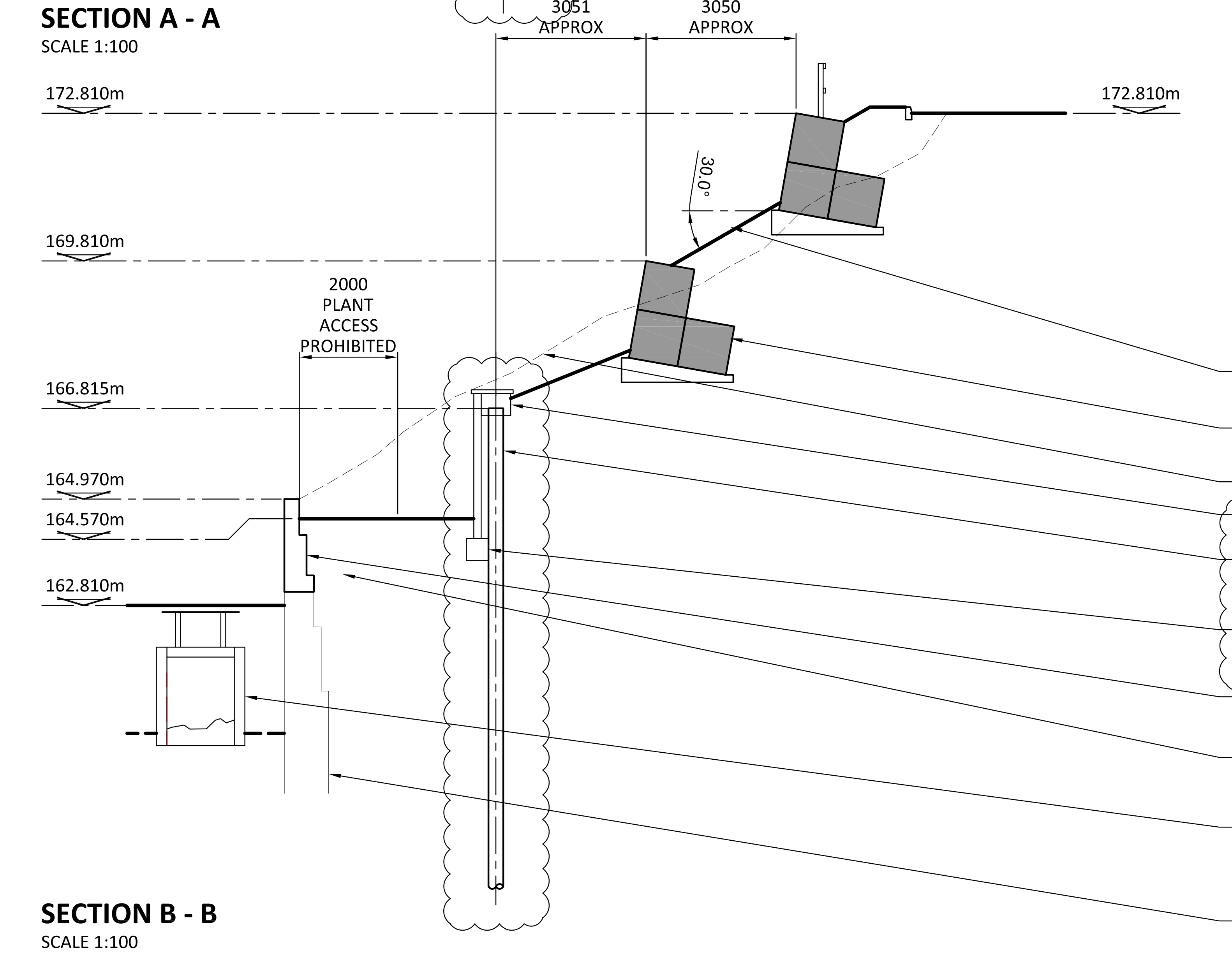
CONTIGUOUS PILED WALL DESIGNED BY SPECIALIST CONTRACTOR, INDICATIVE SIZE 300mm DIAMETER AT 450mm CENTRES.

450 x 450 REINFORCED CONCRETE FOUNDATION DOWELLED TO PILES TO SUPPORT FACING STONEWORK .

DEPTH OF EXISTING FOUNDATION TO THE CARRIAGE HOUSE UNKNOWN, TO BE REVIEWED AND CONFIRMED BY THE ADJOINING OWNERS STRUCTURAL ENGINEER.

SECTION A - A

SCALE 1:100



THE OVERALL SLOPE STABILITY HAS BEEN ASSESSED BY GEOASSIST AND THE SOLUTION ON THIS DRAWING PROPOSED TO STABILISE THE EMBANKMENT. DEPARTURE FROM THIS DESIGN ONLY PERMITTED FOLLOWING RECEIPT OF WRITTEN APPROVAL FROM GEOASSIST.

MAXIMUM SLOPE OF INFILL BETWEEN GABION BASKETS.

REFER TO TYPICAL GABION BASKET RETAINING WALL DETAIL FOR CONSTRUCTION DETAILS.

APPROX. PROFILE OF FAILED SLOPE.

600 x 450 DEEP REINFORCED CONCRETE CAPPING BEAM.

CONTIGUOUS PILED WALL DESIGNED BY SPECIALIST CONTRACTOR, INDICATIVE SIZE 300mm DIAMETER AT 450mm CENTRES.

450 x 450 REINFORCED CONCRETE FOUNDATION DOWELLED TO PILES TO SUPPORT FACING STONEWORK .

EXISTING STONE RETAINING WALL, REFER TO NOTE ON MAIN PLAN FOR PROPOSALS.

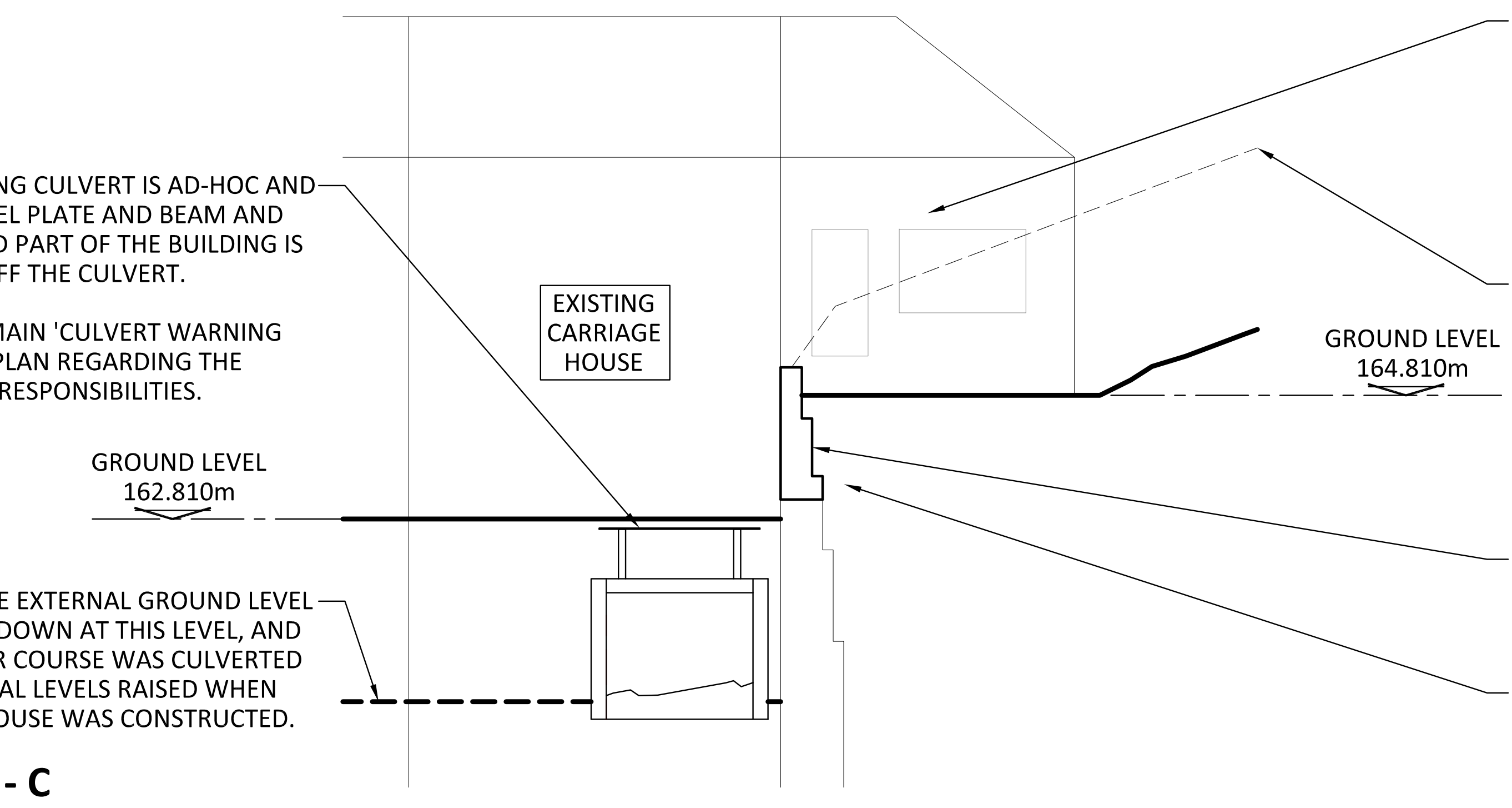
EXISTING STONE RETAINING WALL TO BE BACKFILLED WITH GRANULAR MATERIAL LAID AND COMPACTED IN 150mm THICK LAYERS.

APPROX. LEVEL AND LOCATION OF EXISTING CULVERT. REFER TO MAIN 'CULVERT WARNING NOTE' ON MAIN PLAN REGARDING THE CONDITION AND RESPONSIBILITIES.

DEPTH OF EXISTING FOUNDATION TO STONE RETAINING WALL UNKNOWN.

SECTION B - B

SCALE 1:100



THE TEMPORARY AND PERMANENT STABILITY OF THE EXISTING CARRIAGE HOUSE IS THE RESPONSIBILITY OF THE ADJOINING OWNER'S STRUCTURAL ENGINEER, AND THEY WILL ENSURE ALL SUCH MEASURES ARE INSTALLED PRIOR TO THE COMMENCEMENT OF THE MAIN WORKS. CONTRACTOR TO SEEK ASSURANCES.

APPROX. PROFILE OF FAILED SLOPE.

COVER TO EXISTING CULVERT IS AD-HOC AND CONSISTS OF STEEL PLATE AND BEAM AND BLOCK OVER, AND PART OF THE BUILDING IS CONSTRUCTED OFF THE CULVERT.

ALSO REFER TO MAIN 'CULVERT WARNING NOTE' ON MAIN PLAN REGARDING THE CONDITION AND RESPONSIBILITIES.

EXISTING STONE RETAINING WALL, REFER TO NOTE ON MAIN PLAN FOR PROPOSALS.

HISTORICALLY THE EXTERNAL GROUND LEVEL MAY HAVE BEEN DOWN AT THIS LEVEL, AND THE OPEN WATER COURSE WAS CULVERTED AND THE EXTERNAL LEVELS RAISED WHEN THE CARRIAGE HOUSE WAS CONSTRUCTED.

EXISTING STONE RETAINING WALL TO BE BACKFILLED WITH GRANULAR MATERIAL LAID AND COMPACTED IN 150mm THICK LAYERS.

SECTION C - C

SCALE 1:100

OUTLINE CONSTRUCTION SEQUENCE

PREPARATION WORKS

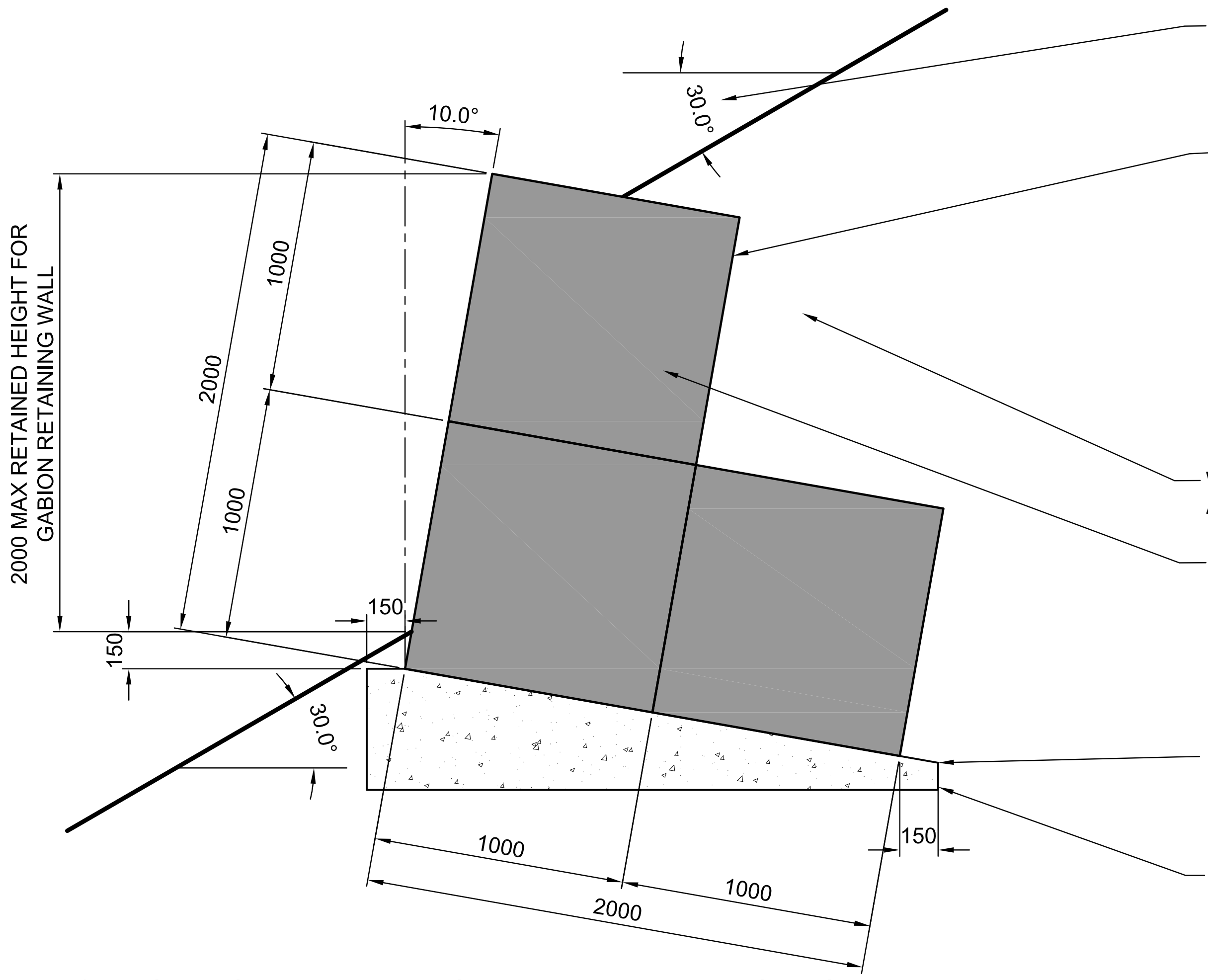
1. EXISTING DRIVEWAY AT TOP OF SLOPE TO BE CORDON OFF TO PREVENT ACCESS.
2. LOCALLY TAKE DOWN END OF EXISTING OUTBUILDING AND RETAIN MATERIALS FOR RE-USE ON SITE. CONTRACTOR TO SUBMIT METHOD STATEMENT FOR THE SAFE TAKE DOWN OF THE EXISTING BUILDING TO BRENNAN CONSULT FOR REVIEW.
3. INSTALL TEMPORARY PROPPING TO EXISTING STONE RETAINING WALL TO LOWER GARDEN AREA, CONTRACTOR TO SUBMIT PROPOSALS TAKING DUE CONSIDERATION FOR BURIED CULVERT.
4. EXCAVATE DEBRIS FROM TERRACE USING HAND TOOLS ONLY DOWN TO TERRACE FLOOR LEVEL (CIRCA 400mm BELOW TOP OF EXISTING STONE RETAINING WALL.) ENSURE MAX 30° SLOPE ANGLE IS MAINTAINED.
5. DETERMINE LOCATION OF EXISTING BURIED TERRACE WALLS AND REPORT INFO TO BRENNAN CONSULT.
6. SET OUT POSITION OF ROW 1, ROW 2 AND ROW 3 WITH STEEL ROAD PINS FOR BRENNAN CONSULT TO REVIEW ON SITE PRIOR TO THE COMMENCEMENT OF WORKS.
7. FORM TEMPORARY PILING MAT TO THE REQUIREMENTS OF THE SPECIALISTS PILING CONTRACTOR.

CONSTRUCTION OF CONTIGUOUS PILED RETAINING WALL AND GABION BASKET RETAINING WALLS.

8. SPECIALIST PILING CONTRACTOR TO DESIGN AND INSTALL CONTIGUOUS PILED WALL ON THE LINE OF ROW 1, TO STABILISE THE FULL SLOPE.
9. COMMENCE CONSTRUCTION OF ROW 2 AT NORTH END, CONSTRUCTING IN 2m LONG SECTIONS, AND THEN PROGRESSING WITH THE NEXT 2m SECTION.
10. COMMENCE CONSTRUCTION OF ROW 3 AT NORTH END, CONSTRUCTING IN 2m LONG SECTIONS, AND THEN PROGRESSING WITH THE NEXT 2m SECTION.

REINSTATEMENT WORKS

11. INSTALL DRIVEWAY TO TOP OF EMBANKMENT IN ACCORDANCE WITH THE DRAWINGS, INCLUDING REPLACEMENT WALL.
12. RE-CONSTRUCT OUTBUILDING IN ACCORDANCE WITH THE DRAWINGS.
13. LOCALLY EXCAVATE BEHIND EXISTING STONE RETAINING WALL TO LOWER GARDEN AREA TO ALLOW LOCALISED RECONSTRUCTION OF WALL TO EXTENT SHOWN ON THE ADJOINING OWNERS STRUCTURAL ENGINEERS' DRAWING, ENSURE MAX 30° SLOPE ANGLE IS MAINTAINED.
13. ONCE THE EXISTING STONE RETAINING WALL IS FULLY REPAIRED TO THE SATISFACTION OF THE ADJOINING OWNERS STRUCTURAL ENGINEER, THEN BACKFILL UP TO TERRACE LEVEL.



MAXIMUM GRADIENT OF RE-GRADED EMBANKMENT.

76.2mm x 76.2mm x 5mm GALFAN COATED (95% ZINC 5% ALUMINIUM) WELDED MESH GABION BASKET WIRE AS PER BS EN 10218-2. ALL BASKETS TO BE LACED AS BRITISH STANDARDS / HIGHWAYS SPECIFICATION.

STONE FILL TO BE 100mm TO 200mm QUARRIED NATURAL STONE, CONTRACTOR TO SUBMIT PROPOSALS FOR CLIENT APPROVAL.

WELL COMPACTED GRANULAR BACKFILL, LAID AND COMPACTED IN 150mm THICK LAYERS.

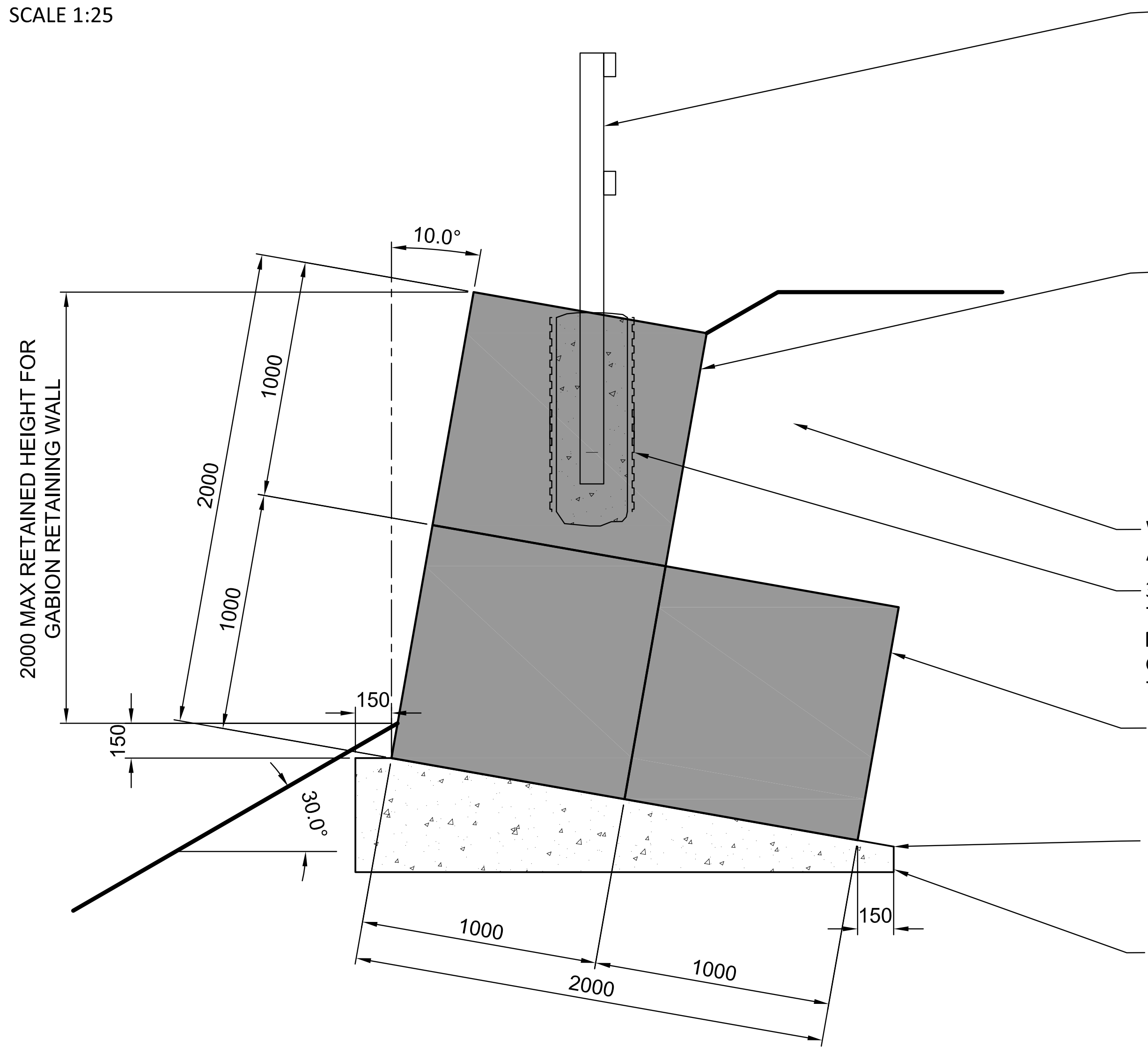
RETAINING WALL TO BE CONSTRUCTED IN 1m HIGH SECTIONS, AND VOID BEHIND BACKFILLED WITH WELL COMPACTED GRANULAR MATERIAL.

MINIMUM 150mm THK. LAYER OF LEAN MIX CONCRETE TO FORM CONSISTENT BASE FOR GABION RETAINING WALL.

GABION BASKETS FOUNDED ON FIRM STRATA, ALL LOOSE / DEBRIS MATERIAL REMOVED.

TYPICAL GABION RETAINING WALL DETAIL - ROW 2

SCALE 1:25



TIMBER FENCE DESIGNED BY SPECIALIST SUPPLIER.

ROW 3 GABION BASKET RETAINING WALL DESIGNED FOR A MAXIMUM SURCHARGE LOAD OF 10 kN/m².

RETAINING WALL NOT DESIGNED FOR HORIZONTAL IMPACT LOAD FROM VEHICLES.

76.2mm x 76.2mm x 5mm GALFAN COATED (95% ZINC 5% ALUMINIUM) WELDED MESH GABION BASKET WIRE AS PER BS EN 10218-2. ALL BASKETS TO BE LACED AS BRITISH STANDARDS / HIGHWAYS SPECIFICATION.

STONE FILL TO BE 100mm TO 200mm QUARRIED NATURAL STONE, CONTRACTOR TO SUBMIT PROPOSALS FOR CLIENT APPROVAL.

WELL COMPACTED GRANULAR BACKFILL, LAID AND COMPACTED IN 150mm THICK LAYERS.

300mm DIAMETER x 1m LONG PLASTIC TUBE, TO BE CONCRETE FILLED TO SUPPORT FENCE POST. ENSURE CONCRETE INTERLOCK WITH GABION MESH TO TOP AND BOTTOM OF TUBE.

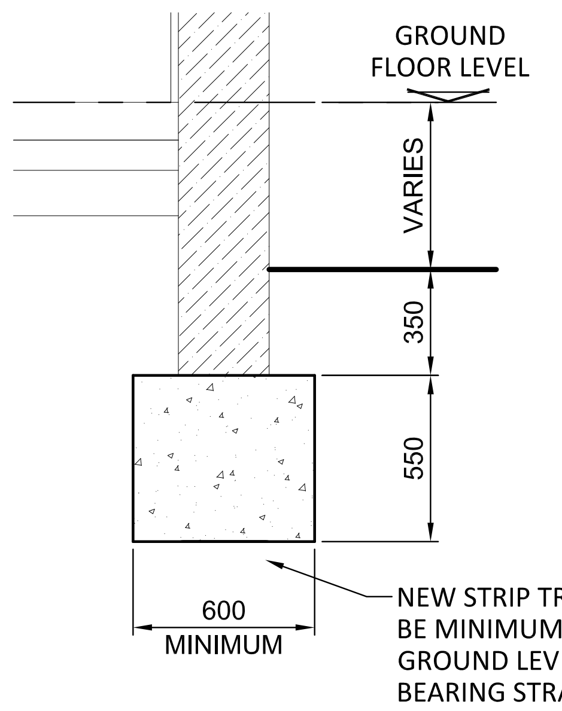
RETAINING WALL TO BE CONSTRUCTED IN 1m HIGH SECTIONS, AND VOID BEHIND BACKFILLED WITH WELL COMPACTED GRANULAR MATERIAL.

MINIMUM 150mm THK. LAYER OF LEAN MIX CONCRETE TO FORM CONSISTENT BASE FOR GABION RETAINING WALL.

GABION BASKETS FOUNDED ON FIRM STRATA, ALL LOOSE / DEBRIS MATERIAL REMOVED.

TYPICAL GABION RETAINING WALL DETAIL - ROW 3

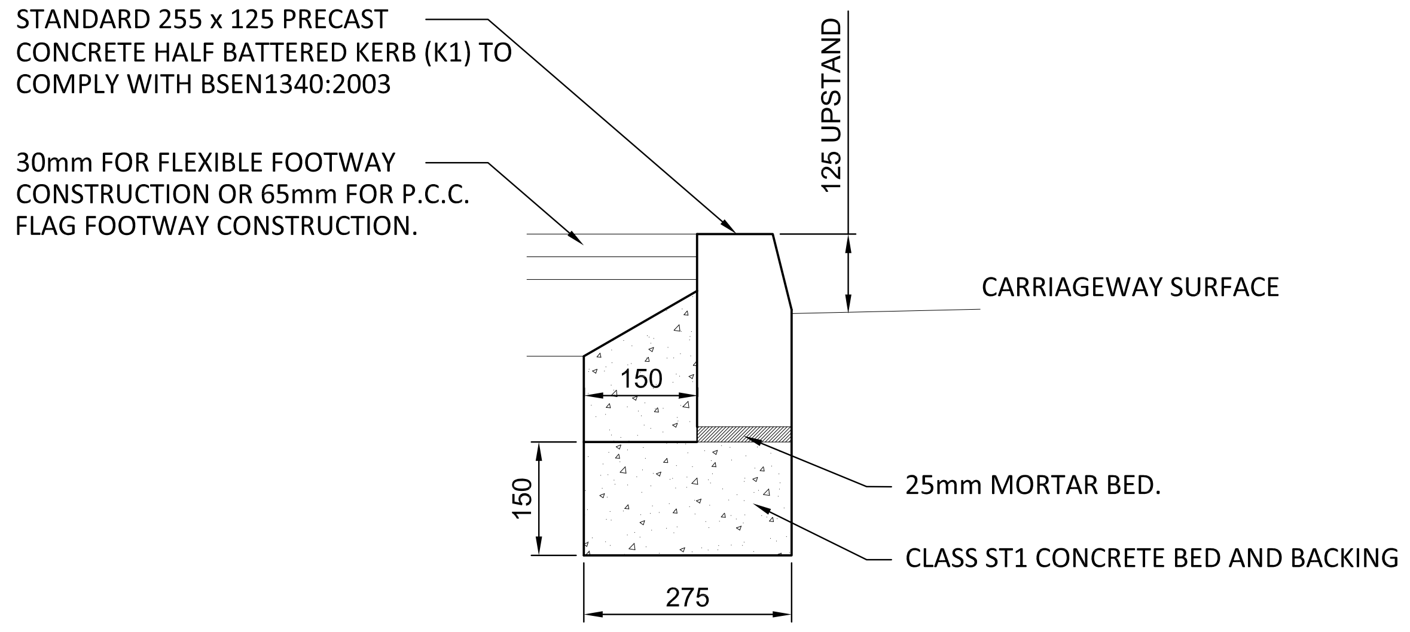
SCALE 1:25



NEW STRIP TRENCH FILL FOUNDATION TO BE MINIMUM 900mm BELOW EXISTING GROUND LEVEL AND CAST ON FIRM LOAD BEARING STRATA FREE FROM VEGETATION / DECAYING MATTER. FOUNDATIONS TO BE TAKEN DOWN TO BELOW INVERT OF ANY DRAINS PASSING UNDER OR IMMEDIATELY ADJACENT TO THE BUILDING AND TO INVERT OF EXISTING HOUSE FOUNDATIONS.

TYPICAL FOUNDATION DETAIL

SCALE 1:25



STANDARD 255 x 125 PRECAST CONCRETE HALF BATTERED KERB (K1) TO COMPLY WITH BSEN1340:2003

30mm FOR FLEXIBLE FOOTWAY CONSTRUCTION OR 65mm FOR P.C.C. FLAG FOOTWAY CONSTRUCTION.

CARRIAGEWAY SURFACE

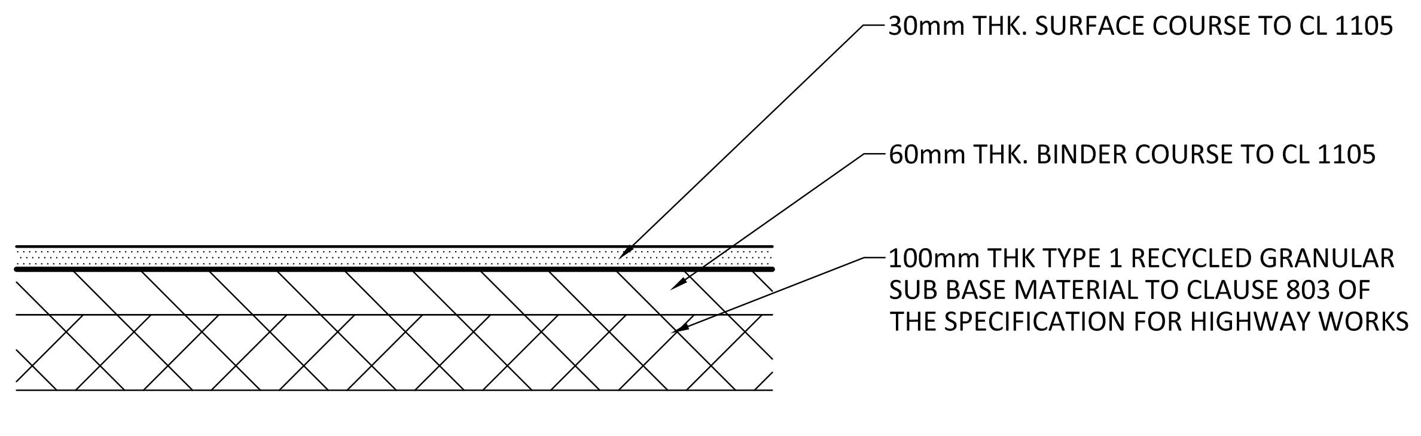
25mm MORTAR BED.

CLASS ST1 CONCRETE BED AND BACKING

NOTE:MINIMUM LENGTH OF ANY 'CUT' KERB TO BE 300mm.

CONCRETE KERB DETAIL

SCALE 1:10



30mm THK. SURFACE COURSE TO CL 1105

60mm THK. BINDER COURSE TO CL 1105

100mm THK TYPE 1 RECYCLED GRANULAR SUB BASE MATERIAL TO CLAUSE 803 OF THE SPECIFICATION FOR HIGHWAY WORKS

TARMAC DRIVEWAY

SCALE 1:10

GENERAL NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER ASSOCIATED DRAWINGS. ANY DISCREPANCY TO BE RAISED PRIOR TO CONSTRUCTION. ANY CONSTRUCTION WORKS WHICH COMMENCE BEFORE THESE DRAWINGS ARE APPROVED ARE AT THE RISK OF THE BUILDING CONTRACTOR.
2. ALL DIMENSIONS ARE IN MILLIMETERS (mm). DO NOT SCALE FROM THIS DRAWING, WORK TO STATED DIMENSIONS ONLY.
3. BUILDING CONTRACTOR TO ENSURE ALL WORKS COMPLY WITH THE CURRENT EDITION OF THE BUILDING REGULATIONS. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH APPROVED DOCUMENT REGULATION 7.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, FABRICATION, ERECTION AND REMOVAL OF ALL TEMPORARY WORKS AND SHALL PROVIDE ALL TEMPORARY BRACING AS NECESSARY TO MAINTAIN STRUCTURAL STABILITY DURING CONSTRUCTION.
5. IF THE CONTRACTOR CONSIDERS THAT HE DOES NOT HAVE SUFFICIENT INFORMATION TO SAFELY COMPLETE THE WORKS DETAILED ON THIS DRAWING, HE SHOULD CONTACT THE ENGINEER.

CDM DESIGNER'S RISK ASSESSMENT

BRENNANCONSULT ASSUME THAT THE CONTRACTOR IS COMPETENT IN MATTERS OF HEALTH & SAFETY AND IS AWARE OF ALL THE NORMAL RISKS ASSOCIATED WITH CONSTRUCTION OF THE TYPE SHOWN ON THIS DRAWING. REMAINING UNUSUAL RISKS ARE:-

CONSTRUCTION	CHK'D.
1. SLOPE AT RISK OF FURTHER FAILURE. 2. REFER TO OUTLINE CONSTRUCTION SEQUENCE AND WARNING NOTES ON DRAWING. 3. FENCE TO TOP OF GABION WALL NOT DESIGNED FOR VEHICLE IMPACT. 4. GABION WALL DESIGNED FOR A SURCHARGE OF 10 kN/m² AT DRIVEWAY LEVEL.	LM
MAINTENANCE / CLEANING	
NO UNUSUAL RISKS	LM
DECOMMISSIONING / DEMOLITION	
NO UNUSUAL RISKS	LM

REV	REVISION DESCRIPTION	BY	DATE	CHECKED
B	MINOR AMENDMENTS - REFER TO REV CLOUD	WSS	16.06.22	LM
A	MINOR AMENDMENTS - REFER TO REV CLOUD	WSS	17.01.22	LM
O	FOR APPROVAL	JR	10.01.22	LM

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CELLARS CLOUGH, MARSDEN,
HUDDERSFIELD, HD7 6LY

EMBANKMENT RECONSTRUCTION
WORK
SECTIONS & DETAILS

Status
FOR APPROVAL

Project No.	Series Code	Drawing No.	Revision
2426		003	B

Scale	Size	Drawn	Date	Checked	Passed
VARIES	A1	JR	DEC 21	LM	CB