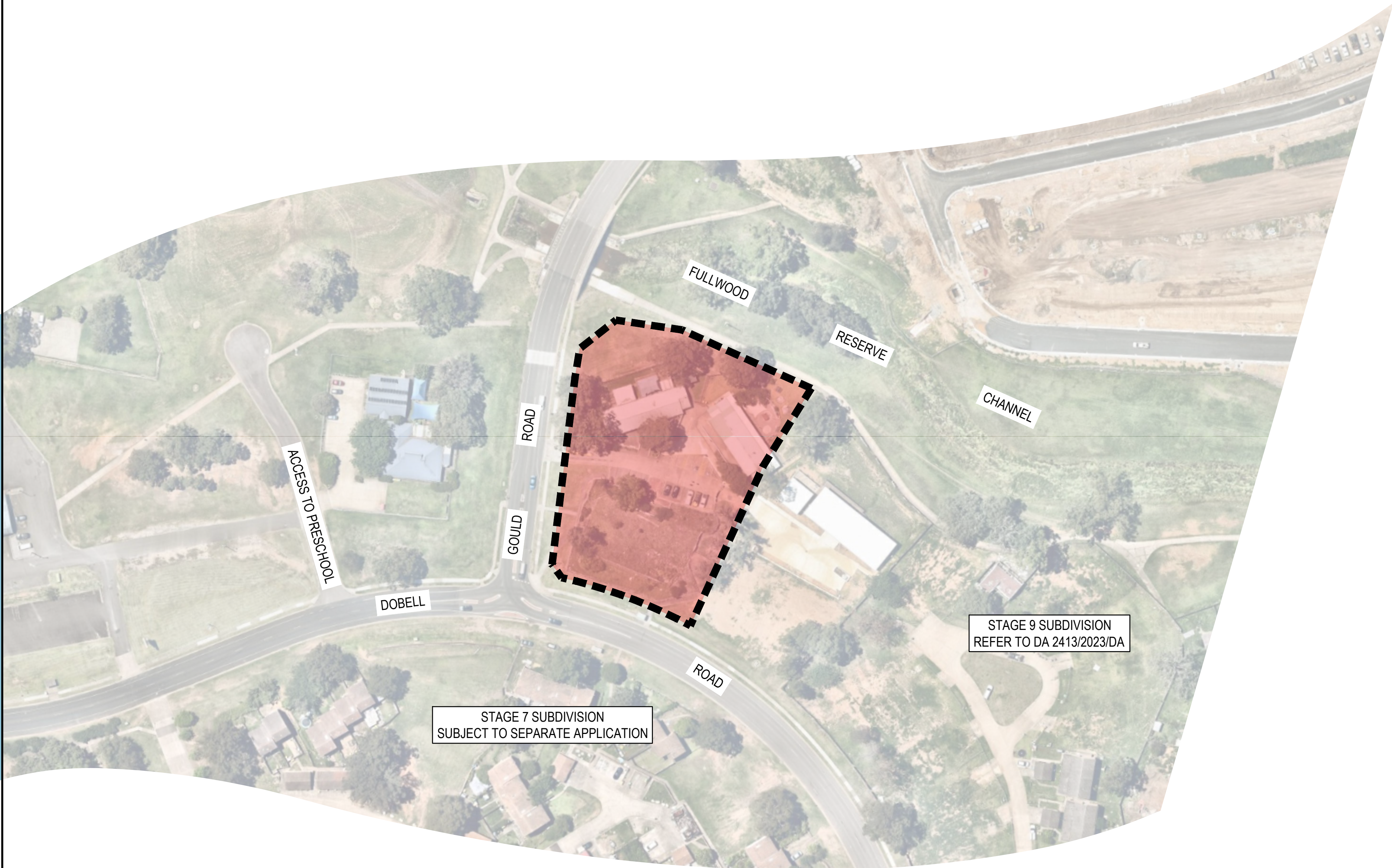




HOMES NSW

9 GOULD ROAD, CLAYMORE
CLAYMORE SENIORS LIVING - STAGE 9B
CIVIL ENGINEERING WORKS
DEVELOPMENT APPLICATION

DRAWING SCHEDULE

DRAWING NUMBER	DESCRIPTION
210146-04-DA-C01.01	COVER SHEET AND DRAWING SCHEDULE
210146-04-DA-C02.01	ESTABLISHMENT AND DEMOLITION PLAN
210146-04-DA-C03.01	EROSION AND SEDIMENTATION CONTROL PLAN
210146-04-DA-C03.21	EROSION AND SEDIMENTATION CONTROL DETAILS
210146-04-DA-C05.01	SITEWORKS AND STORMWATER MANAGEMENT PLAN
210146-04-DA-C07.01	DRIVEWAY LONGITUDINAL SECTION
210146-04-DA-C23.01	SAFETY IN DESIGN

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
2	11/12/2024	ISSUED FOR DEVELOPMENT APPLICATION	JS	JS	CVA	RA
1	8/11/2024	ISSUED FOR CLIENT REVIEW	SS	JS		RA

Client



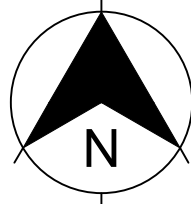


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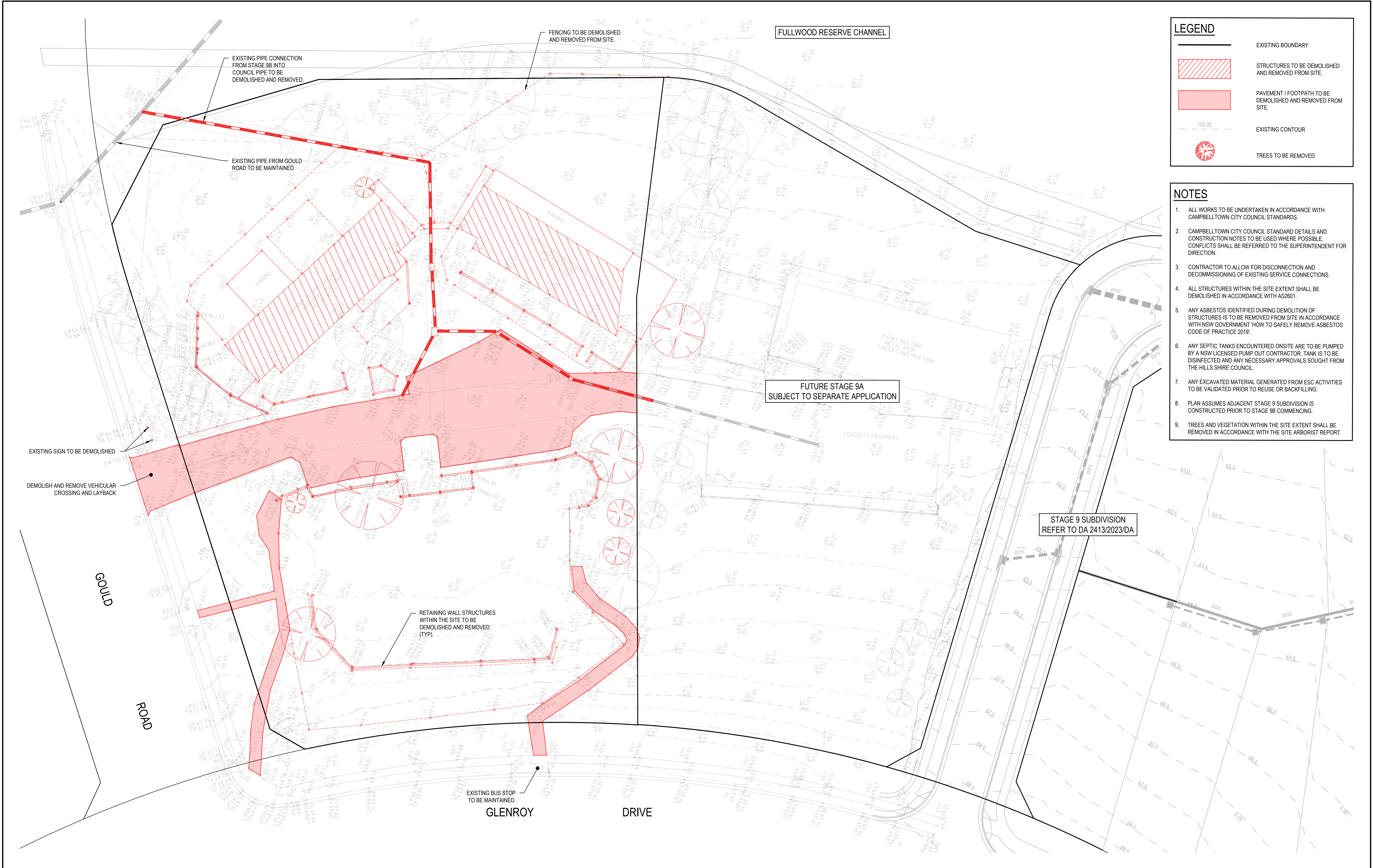


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Date 08/11/2024	Project Number/Drawing Number 210146-04-DA-C01.01	
Size A1	Revision 2	
Datum MGA2020		



REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
2	11/12/2024	ISSUED FOR DEVELOPMENT APPLICATION	JS	JS	CVA	RA
1	8/11/2024	ISSUED FOR CLIENT REVIEW	SS	JS		RA

Client

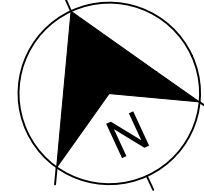


Scale



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North



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Project
9 GOULD ROAD, CLAYMORE
CLAYMORE SENIORS LIVING - STAGE 9B
CIVIL ENGINEERING WORKS

Title
ESTABLISHMENT AND DEMOLITION PLAN

Scale
1:250

Date
08/11/2024

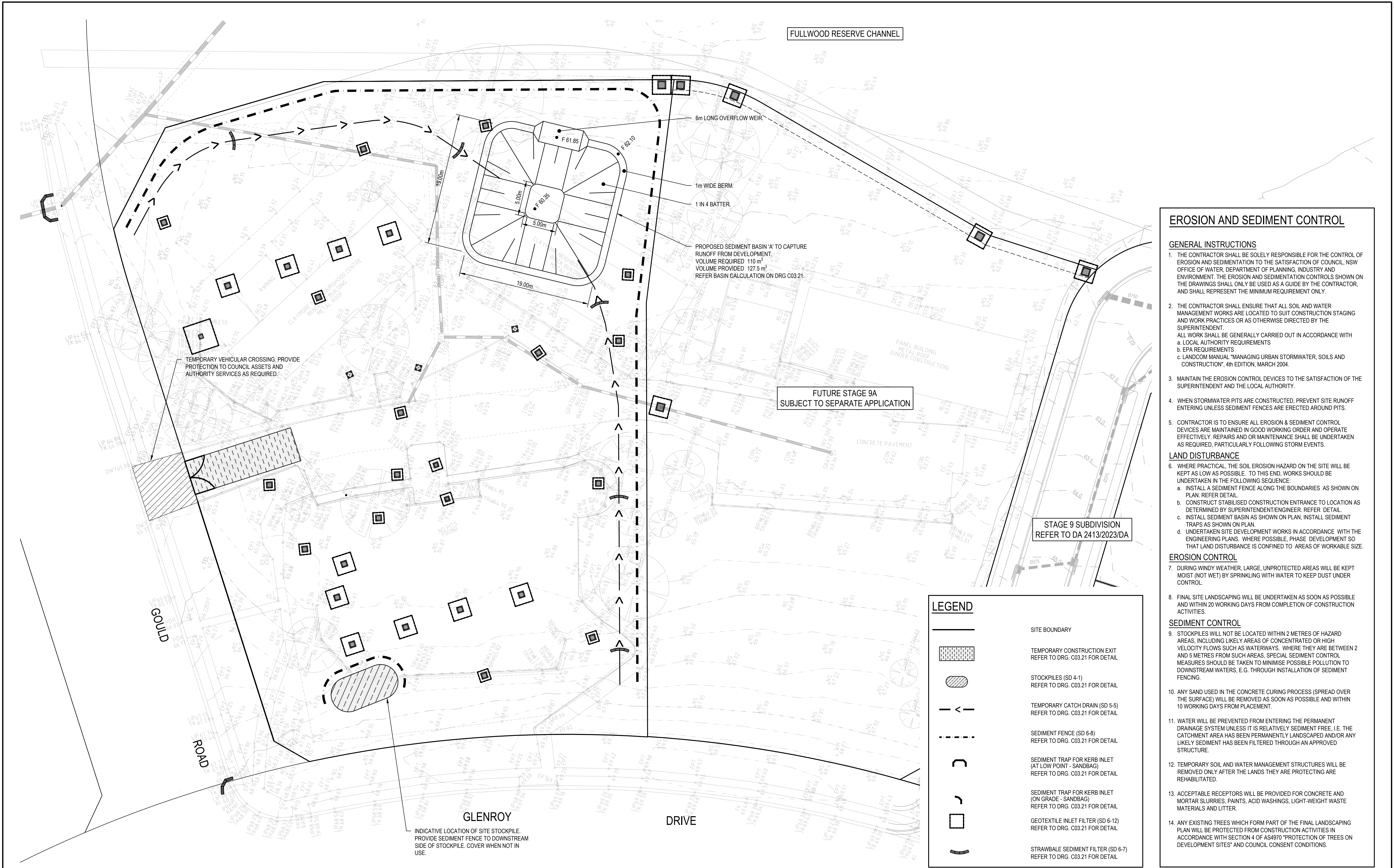
Size
A1

Datum
MGA2020

Status
FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION

Project Number/Drawing Number
210146-04-DA-C02.01

Revision
2



EROSION AND SEDIMENT CONTROL

GENERAL INSTRUCTIONS

- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONTROL OF EROSION AND SEDIMENTATION TO THE SATISFACTION OF COUNCIL, NSW OFFICE OF WATER, DEPARTMENT OF PLANNING, INDUSTRY AND ENVIRONMENT. 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.
- THE CONTRACTOR SHALL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE LOCATED TO SUIT CONSTRUCTION STAGING AND WORK PRACTICES OR AS OTHERWISE DIRECTED BY THE SUPERINTENDENT.
ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH
 - LOCAL AUTHORITY REQUIREMENTS
 - EPA REQUIREMENTS
 - LANDCOM MANUAL "MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION", 4th EDITION, MARCH 2004.
- MAINTAIN THE EROSION CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT AND THE LOCAL AUTHORITY.
- WHEN STORMWATER PITS ARE CONSTRUCTED, PREVENT SITE RUNOFF ENTERING UNLESS SEDIMENT FENCES ARE ERECTED AROUND PITS.
- CONTRACTOR IS TO ENSURE ALL EROSION & SEDIMENT CONTROL DEVICES ARE MAINTAINED IN GOOD WORKING ORDER AND OPERATE EFFECTIVELY. REPAIRS AND OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED, PARTICULARLY FOLLOWING STORM EVENTS.

LAND DISTURBANCE

- WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE WILL BE KEPT AS LOW AS POSSIBLE. TO THIS END, WORKS SHOULD BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:
 - INSTALL A SEDIMENT FENCE ALONG THE BOUNDARIES AS SHOWN ON PLAN. REFER DETAIL.
 - CONSTRUCT STABILISED CONSTRUCTION ENTRANCE TO LOCATION AS DETERMINED BY SUPERINTENDENT/ENGINEER. REFER DETAIL.
 - INSTALL SEDIMENT BASIN AS SHOWN ON PLAN. INSTALL SEDIMENT TRAPS AS SHOWN ON PLAN.
 - UNDERTAKEN SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. WHERE POSSIBLE, PHASE DEVELOPMENT SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF WORKABLE SIZE.

EROSION CONTROL

- DURING WINDY WEATHER, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.
- FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 20 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.

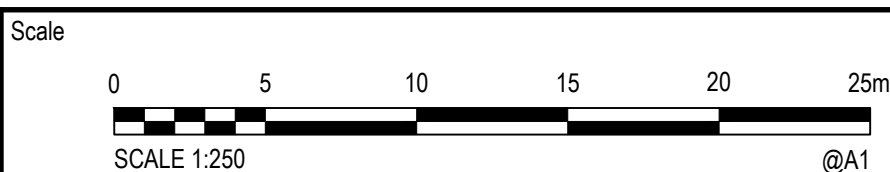
SEDIMENT CONTROL

- STOCKPILES WILL NOT BE LOCATED WITHIN 2 METRES OF HAZARD AREAS, INCLUDING LIKELY AREAS OF CONCENTRATED OR HIGH VELOCITY FLOWS SUCH AS WATERWAYS. WHERE THEY ARE BETWEEN 2 AND 5 METRES FROM SUCH AREAS, SPECIAL SEDIMENT CONTROL MEASURES SHOULD BE TAKEN TO MINIMISE POSSIBLE POLLUTION TO DOWNSTREAM WATERS, E.G. THROUGH INSTALLATION OF SEDIMENT FENCING.
- ANY SAND USED IN THE CONCRETE CURING PROCESS (SPREAD OVER THE SURFACE) WILL BE REMOVED AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM PLACEMENT.
- WATER WILL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE, I.E. THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED THROUGH AN APPROVED STRUCTURE.
- TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.
- ACCEPTABLE RECEPTORS WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER.
- ANY EXISTING TREES WHICH FORM PART OF THE FINAL LANDSCAPING PLAN WILL BE PROTECTED FROM CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH SECTION 4 OF AS4970 "PROTECTION OF TREES ON DEVELOPMENT SITES" AND COUNCIL CONSENT CONDITIONS.

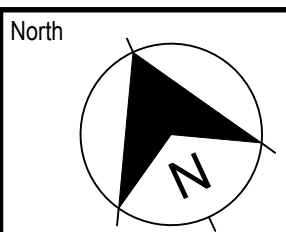
LEGEND

	SITE BOUNDARY
	TEMPORARY CONSTRUCTION EXIT REFER TO DRG. C03.21 FOR DETAIL
	STOCKPILES (SD 4-1) REFER TO DRG. C03.21 FOR DETAIL
	TEMPORARY CATCH DRAIN (SD 5-5) REFER TO DRG. C03.21 FOR DETAIL
	SEDIMENT FENCE (SD 6-8) REFER TO DRG. C03.21 FOR DETAIL
	SEDIMENT TRAP FOR KERB INLET (AT LOW POINT - SANDBAG) REFER TO DRG. C03.21 FOR DETAIL
	SEDIMENT TRAP FOR KERB INLET (ON GRADE - SANDBAG) REFER TO DRG. C03.21 FOR DETAIL
	GEOTEXTILE INLET FILTER (SD 6-12) REFER TO DRG. C03.21 FOR DETAIL
	STRAWBALE SEDIMENT FILTER (SD 6-7) REFER TO DRG. C03.21 FOR DETAIL

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
2	11/12/2024	ISSUED FOR DEVELOPMENT APPLICATION	JS	JS	CVA	RA
1	8/11/2024	ISSUED FOR CLIENT REVIEW	SS	JS		RA



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Project
9 GOULD ROAD, CLAYMORE
CLAYMORE SENIORS LIVING - STAGE 9B
CIVIL ENGINEERING WORKS

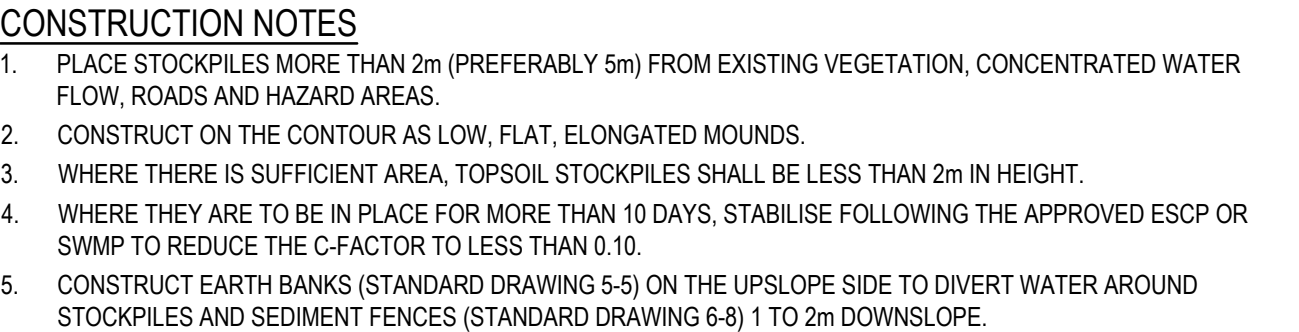
Title
EROSION AND SEDIMENTATION CONTROL PLAN

Scale
1:250
Date
08/11/2024
Size
A1
Datum
MGA2020

Status
FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION

Project Number/Drawing Number
210146-04-DA-C03.01

Revision
2



The image contains three technical drawings of a star picket fence system:

- Perspective View (Top Left):** Shows a section of the fence with star pickets installed at a maximum of 2.5m centres. It distinguishes between a 'DISTURBED AREA' (dotted pattern) and an 'UNDISTURBED AREA' (hatched pattern). An arrow indicates the 'DIRECTION OF FLOW'.
- SECTION DETAIL (Top Right):** A cross-sectional view showing the fence's construction. It specifies a height of 500-600mm, a minimum depth of 600mm, and a minimum trench width of 500mm. The pickets are 1.5m apart. The system is labeled as 'SELF-SUPPORTING GEOTEXTILE' and 'DIRECTION OF FLOW'. Installation instructions state: 'ON SOIL, 150mmx100mm TRENCH WITH COMPACTED BACKFILL AND ON ROCK, SET INTO SURFACE CONCRETE.'
- PLAN (Bottom):** A top-down view of the fence layout. It shows a maximum length of 20m (unless otherwise stated on SWMPE/SCIP) and a minimum picket spacing of 1.5m. An arrow indicates the 'FLOW' direction.

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 150mm 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 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

Diagram illustrating the cross-section of a drainage ditch. The ditch is shown with a gradient of 1% to 5% and a minimum width of 2 metres. The ditch is labeled "DRAINAGE DITCH" and "DRAINAGE DITCH". The ditch is shown with a dashed line for the flow direction and a solid line for the ditch profile. The ditch is labeled "DRAINAGE DITCH" and "DRAINAGE DITCH".

The diagrams illustrate the installation of drop inlets for erosion control in two scenarios: a standard drop inlet and an artificial sag point.

Top Diagram: Standard Drop Inlet

- STAR PICKETS:** Indicated by arrows pointing to the vertical posts supporting the mesh.
- 1 METRE MAX.:** A dimension line indicating the maximum spacing between the star pickets.
- DROP INLET WITH GRATE:** Points to the rectangular structure at the bottom of the inlet.
- WIRE OR STEEL MESH (14 GAUGE x 150mm OPENINGS) WHERE GEOTEXTILE IS NOT SELF-SUPPORTING:** Points to the grid-like mesh covering the inlet.
- WOVEN GEOTEXTILE:** Points to the fabric layer at the base of the inlet.

Bottom Diagram: Artificial Sag Point

- SANDBAGS:** Points to a row of sandbags placed along the waterway.
- WATERWAY:** Points to the channel where water is flowing.
- FLOW:** Indicated by a downward arrow showing the direction of water movement.
- EXCAVATION:** Points to a dug-out area in the earth bank.
- EARTH BANK:** Points to the raised embankment on the side of the waterway.

Right Diagram: Detailed View of Artificial Sag Point

- STAR PICKET FITTED WITH SAFETY CAP:** Points to the vertical post at the edge of the excavation.
- WOVEN GEOTEXTILE:** Points to the fabric layer.
- RUNOFF WATER WITH SEDIMENT:** Indicated by an arrow showing water entering the inlet.
- GEOTEXTILE EMBEDDED 150mm INTO GROUND:** Points to the fabric layer being pushed into the ground by the water flow.
- FILTERED WATER:** Indicated by an arrow showing the water exiting the inlet after passing through the mesh.

FOR DROP INLETS AT NON-SAG POINTS, SANDBAGS, EARTH BANK OR EXCAVATION USED TO CREATE ARTIFICIAL SAG POINT

1. FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE OR STRAW BALES.
2. FOLLOW STANDARD DRAWING 6-7 AND STANDARD DRAWING 6-8 FOR INSTALLATION PROCEDURES FOR THE STRAW BALES OR GEOFABRIC. REDUCE THE PICKET SPACING TO 1 METRE CENTRES.
3. IN WATERWAYS, ARTIFICIAL SAG POINTS CAN BE CREATED WITH SANDBAGS OR EARTH BANKS AS SHOWN IN THE DRAWING.
4. DO NOT COVER THE INLET WITH GEOTEXTILE UNLESS THE DESIGN IS ADEQUATE TO ALLOW FOR ALL WATERS TO BYPASS IT.

The technical drawings illustrate the construction of a straw bale wall:

- ELEVATION:** Shows a side view of the wall. It features a horizontal row of straw bales with vertical star pickets driven through them into the ground. The pickets are labeled "1.2m STAR PICKET DRIVEN 600mm INTO GROUND". The first picket is angled, labeled "ANGLE FIRST STAKE TOWARDS PREVIOUS BALE". A circular marker "A" is at the top center.
- PLAN:** Shows a top-down view of the bales. It indicates the "FLOW" direction with an arrow. The spacing between bales is marked as "20m MAX. (UNLESS STATED OTHERWISE ON SWMP/ESCP)". A note states "STRAW BALES TIGHTLY ABUTTING TOGETHER".
- SECTION:** Shows a cross-section of the wall. The bales are embedded into the ground, labeled "BALES EMBEDDED 100mm INTO GROUND". The wall is bound with "NYLON OR WIRE BINDING". The distance between the wall and the "DISTURBED AREA" is "1.5m TO 2m". The ground slopes away at a "2:1 SLOPE". A circular marker "A" is at the bottom right.

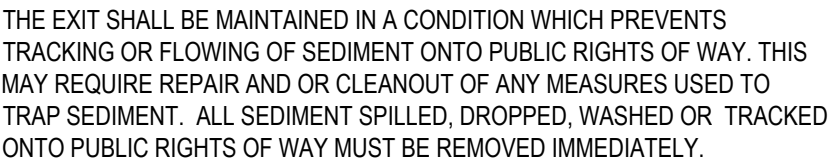
1. CONSTRUCT THE STRAW BALE FILTER AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE.
2. PLACE BALES LENGTHWISE IN A ROW WITH ENDS TIGHTLY ABUTTING. USE STRAW TO FILL ANY GAPS BETWEEN BALES. STRAWS ARE TO BE PLACED PARALLEL TO GROUND.
3. ENSURE THAT THE MAXIMUM HEIGHT OF THE FILTER IS ONE BALE.
4. EMBED EACH BALE IN THE GROUND 75mm TO 100mm 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 600mm 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.

The diagram illustrates a sediment trap for a kerb inlet on grade. It shows a cross-section of a road surface with a kerb. Sandbags are placed in three layers, with their ends overlapped, to create a barrier. The distance between the sandbags is labeled as 2000 MIN. The gap between the sandbags is labeled as GAP BETWEEN BAGS ACT AS SPILLWAY. The runoff is shown flowing from the road surface into the kerb inlet. The sandbags are labeled as THREE LAYERS OF SANDBAGS WITH ENDS OVERLAPPED. The distance from the sandbags to the kerb inlet is labeled as 500 MIN. The diagram is labeled NOT TO SCALE.

SEDIMENT TRAP FOR KERB INLET
(ON GRADE - SANDBAG)

NOT TO SCALE

The diagram illustrates a cross-section of a sediment trap installed at a kerb inlet. A concrete kerb is shown on the left, with sandbags overlapping onto it. A gap between the sandbags is labeled 'GAP BETWEEN BAGS ACT AS SPILLWAY'. The sandbags are arranged in a U-shape, with three layers of sandbags at the ends, labeled 'THREE LAYERS OF SANDBAGS WITH ENDS OVERLAPPED'. Arrows indicate 'RUNOFF' from both sides into the trap. The bottom of the trap is labeled 'SEDIMENT TRAP FOR KERB INLET (AT LOW POINT - SANDBAG)'. A note at the bottom states 'NOT TO SCALE'.



Site Name: Claymore Urban Renewal Stage 9B
Site Location: Claymore, Campbelltown LGA
Precinct/Stage: Stages 9B Seniors Housing
Other Details:

Soil analysis (enter sediment type if known, or laboratory particle size data)				
Sediment Type (C, F or D) if known:	D			From Appendix C (if known)
% sand (fraction 0.02 to 2.00 mm)	29			Enter the percentage of each soil fraction. E.g. enter 10 for 10%
% silt (fraction 0.002 to 0.02 mm)	29			
% clay (fraction finer than 0.002 mm)	29			
Dispersion percentage	10.0			E.g. enter 10 for dispersion of 10%
% of whole soil dispersible	4.35			See Section 6.3.3(e). Auto-calculated
Soil Texture Group	D			Automatic calculation from above

RUSLE Factors							
Rainfall erosivity (<i>R</i> -factor)	2250						Auto-filled from above
Soil erodibility (<i>K</i> -factor)	0.075						RUSLE LS factor calculated for a high hill/interill ratio.
Slope length (m)	95						
Slope gradient (%)	9.6						
Length/gradient (<i>LS</i> -factor)	2.95						
Erosion control practice (<i>P</i> -factor)	1.3	1.3	1.3	1.3	1.3	1.3	
Ground cover (<i>C</i> -factor)	1	1	1	1	1	1	

Calculations and Type D/F Sediment Basin Volumes				
Soil loss (t/ha/yr)	648			
Soil Loss Class	5			See Table 4.2, page 4-13
Soil loss (m ³ /ha/yr)	499			Conversion to cubic metres
Sediment basin storage (soil) volume (m ³)	52			See Sections 6.3.4(i) for calculations
Sediment basin settling (water) volume (m ³)	58			See Sections 6.3.4(i) for calculations
Sediment basin total volume (m ³)	110			

NB for sizing of Type C (coarse) sediment basins, see Worksheet 3 (if required)

Client



The NSW Government logo features a stylized red flower above the text "NSW" in large blue letters and "GOVERNMENT" in smaller blue letters below it. The Homes NSW logo consists of a red house shape with the text "Homes" in white above "NSW" in white.

Scale	North
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Project	9 GOULD ROAD, CLAYMORE CLAYMORE SENIORS LIVING - STAGE 9B CIVIL ENGINEERING WORKS
Title	EROSION AND SEDIMENTATION CONTROL DETAILS

Scale	N.T.S
Date	08/11/2024
Size	A1
Datum	MGA2020

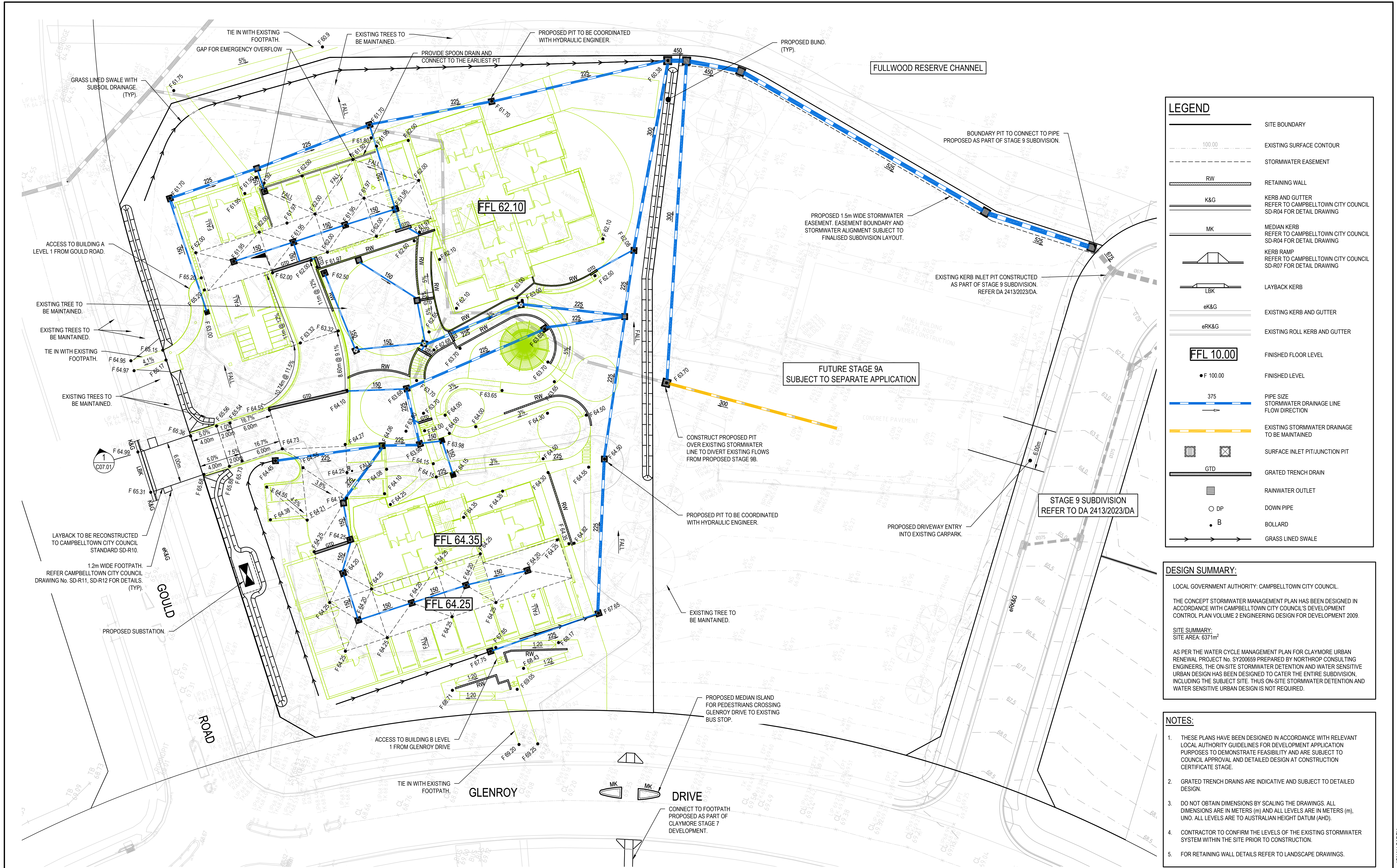
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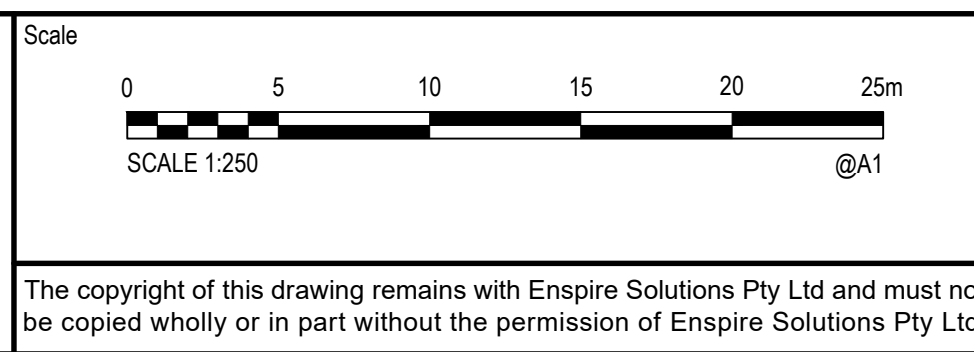
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210146-04-DA-C03.21

Revision 2 DATE PLOTTED: 11 December 2024 11:20 AM BY : JONAH SADEK

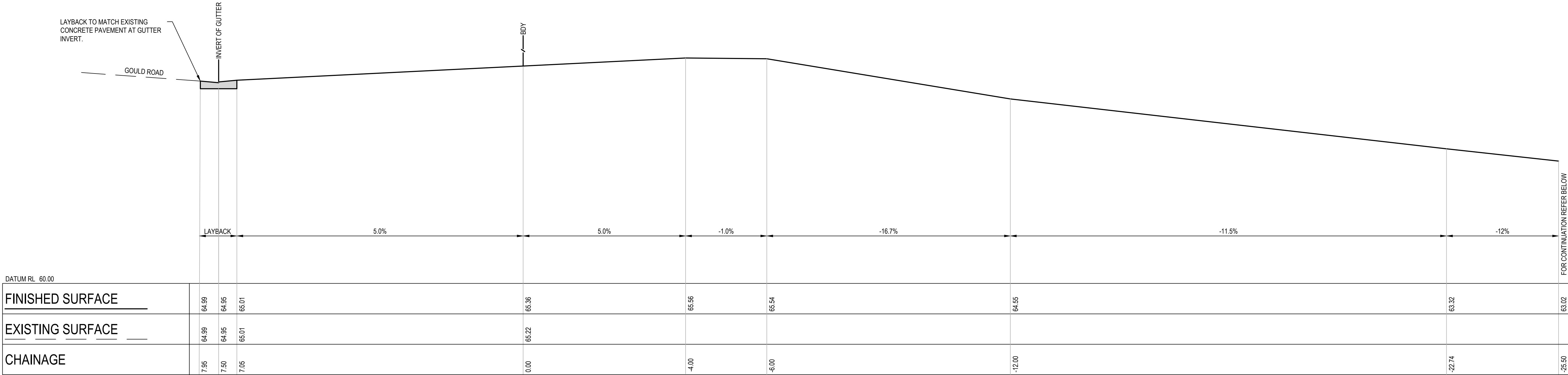


REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
4	1/04/2025	ISSUED FOR DEVELOPMENT APPLICATION	MW	MW		RA
3	11/12/2024	ISSUED FOR DEVELOPMENT APPLICATION	JS	JS	CVA	RA
2	8/11/2024	ISSUED FOR CLIENT REVIEW	SS	JS		RA
1	25/10/2024	ISSUED FOR COORDINATION	CL	JS		RA



Project	9 GOULD ROAD, CLAYMORE CLAYMORE SENIORS LIVING - STAGE 9B CIVIL ENGINEERING WORKS
Title	SITEWORKS AND STORMWATER MANAGEMENT PLAN
Scale	1:250
Date	25/10/2024
Size	A1
Datum	MGA2020

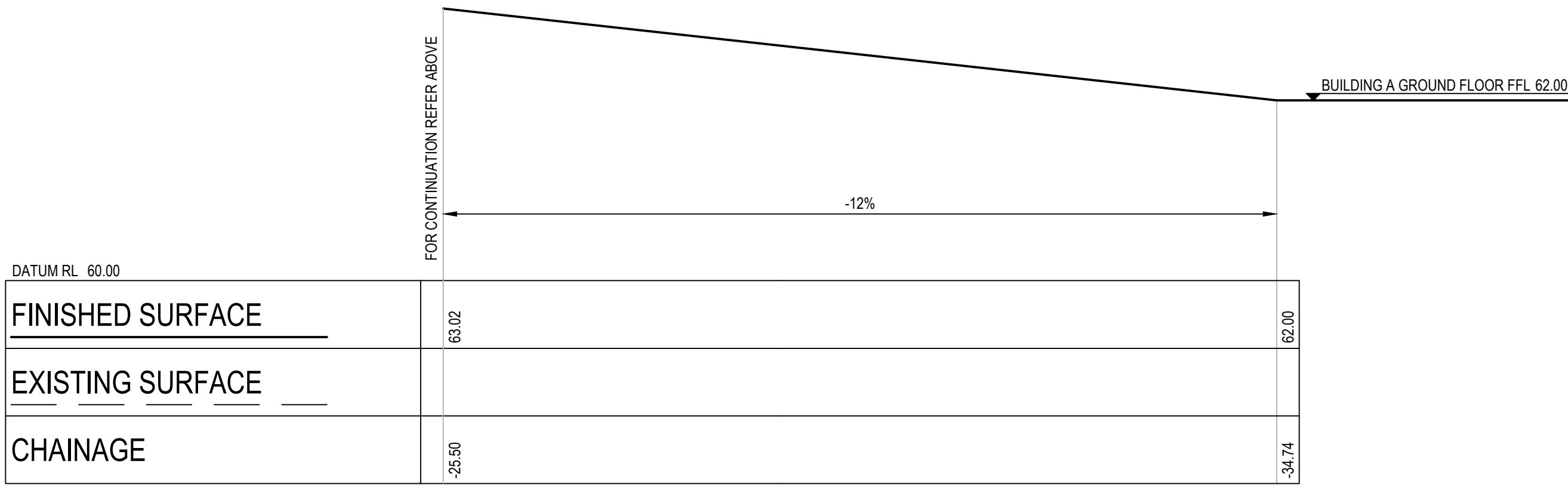
Status	FOR APPROVAL NOT TO BE USED FOR CONSTRUCTION
Project Number/Drawing Number	210146-04-DA-C05.01
Revision	4



DRIVEWAY LONGITUDINAL SECTION

SCALE 1:50

1
C05.01



DRIVEWAY LONGITUDINAL SECTION

SCALE 1:50

1
C05.01

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
4	1/04/2025	ISSUED FOR DEVELOPMENT APPLICATION	MW	MW		RA
2	11/12/2024	ISSUED FOR DEVELOPMENT APPLICATION	JS	JS	CVA	RA
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Client



Scale



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Project
9 GOULD ROAD, CLAYMORE
CLAYMORE SENIORS LIVING - STAGE 9B
CIVIL ENGINEERING WORKS

Title
DRIVEWAY LONGITUDINAL SECTION

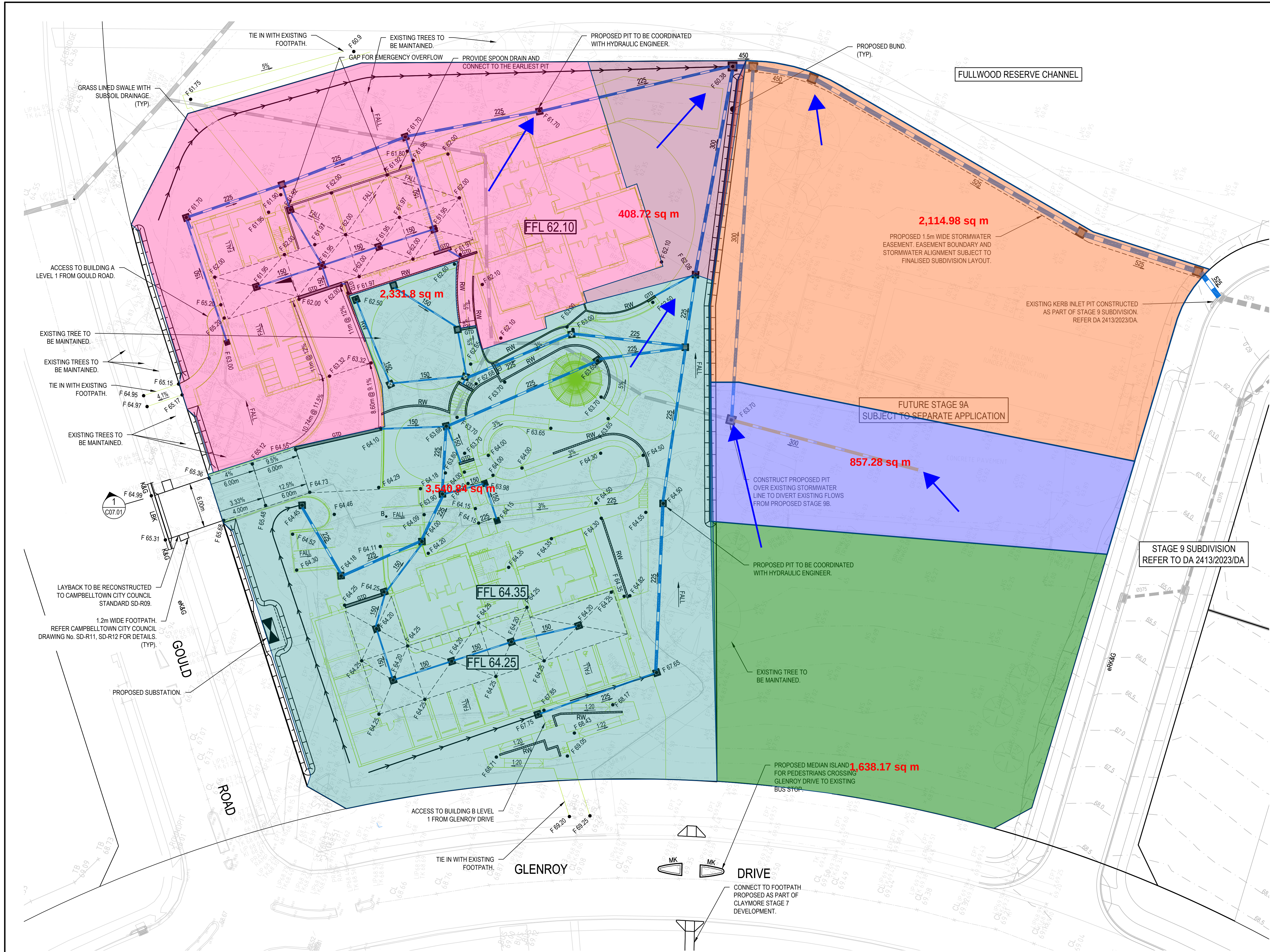
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Date
08/11/2024

Size
A1
Datum
MGA2020

Status
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NOT TO BE USED FOR CONSTRUCTION

Project Number/Drawing Number
210146-04-DA-C07.01

Revision
4



LEGEND

→ CATCHMENT DIRECTION

LEGEND

SITE BOUNDARY

100.00 EXISTING SURFACE CONTOUR

STORMWATER EASEMENT

RW RETAINING WALL

K&G KERB AND GUTTER REFER TO CAMPBELLTOWN CITY COUNCIL SD-R04 FOR DETAIL DRAWING

MK MEDIAN KERB REFER TO CAMPBELLTOWN CITY COUNCIL SD-R04 FOR DETAIL DRAWING

KERB RAMP REFER TO CAMPBELLTOWN CITY COUNCIL SD-R07 FOR DETAIL DRAWING

LBK LAYBACK KERB

ek&G EXISTING KERB AND GUTTER

eRK&G EXISTING ROLL KERB AND GUTTER

FFL 10.00 FINISHED FLOOR LEVEL

F 100.00 FINISHED LEVEL

375 PIPE SIZE STORMWATER DRAINAGE LINE FLOW DIRECTION

EXISTING STORMWATER DRAINAGE TO BE MAINTAINED

SURFACE INLET PIT/JUNCTION PIT

GTD GRATED TRENCH DRAIN

RAINWATER OUTLET

DP DOWN PIPE

B BOLLARD

GRASS LINED SWALE

DESIGN SUMMARY:

LOCAL GOVERNMENT AUTHORITY: CAMPBELLTOWN CITY COUNCIL.

THE CONCEPT STORMWATER MANAGEMENT PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CAMPBELLTOWN CITY COUNCIL'S DEVELOPMENT CONTROL PLAN VOLUME 2 ENGINEERING DESIGN FOR DEVELOPMENT 2009.

SITE SUMMARY:
SITE AREA: 6371m²

AS PER THE WATER CYCLE MANAGEMENT PLAN FOR CLAYMORE URBAN RENEWAL PROJECT No. SY200659 PREPARED BY NORTHROP CONSULTING ENGINEERS, THE ON-SITE STORMWATER DETENTION AND WATER SENSITIVE URBAN DESIGN HAS BEEN DESIGNED TO CATER THE ENTIRE SUBDIVISION, INCLUDING THE SUBJECT SITE. THUS ON-SITE STORMWATER DETENTION AND WATER SENSITIVE URBAN DESIGN IS NOT REQUIRED.

NOTES:

- THESE PLANS HAVE BEEN DESIGNED IN ACCORDANCE WITH RELEVANT LOCAL AUTHORITY GUIDELINES FOR DEVELOPMENT APPLICATION PURPOSES TO DEMONSTRATE FEASIBILITY AND ARE SUBJECT TO COUNCIL APPROVAL AND DETAILED DESIGN AT CONSTRUCTION CERTIFICATE STAGE.
- GRATED TRENCH DRAINS ARE INDICATIVE AND SUBJECT TO DETAILED DESIGN.
- DO NOT OBTAIN DIMENSIONS BY SCALING THE DRAWINGS. ALL DIMENSIONS ARE IN METERS (m) AND ALL LEVELS ARE IN METERS (m), UNO. ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD).
- CONTRACTOR TO CONFIRM THE LEVELS OF THE EXISTING STORMWATER SYSTEM WITHIN THE SITE PRIOR TO CONSTRUCTION.
- FOR RETAINING WALL DETAILS REFER TO LANDSCAPE DRAWINGS.

REV.	DATE	DESCRIPTION	DRN.	DES.	VERIF.	APPD.
3	11/12/2024	ISSUED FOR DEVELOPMENT APPLICATION	JS	JS	CVA	RA
2	8/11/2024	ISSUED FOR CLIENT REVIEW	SS	JS		RA
1	25/10/2024	ISSUED FOR COORDINATION	CL	JS		RA

Client

NSW GOVERNMENT

Homes NSW

Scale

0 5 10 15 20 25m

SCALE 1:250

@A1

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North

enspire

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Project

9 GOULD ROAD, CLAYMORE
CLAYMORE SENIORS LIVING - STAGE 9B
CIVIL ENGINEERING WORKS

Title

SITEWORKS AND STORMWATER MANAGEMENT PLAN

Scale

1:250

Date

25/10/2024

Size

A1

Datum

MGA2020

Status

2

Project #:

210146

Description:

STAGE 9B CATCHMENTS

Date:

31/03/2025

Signature:

JS

INTRODUCTION

THIS SAFETY IN DESIGN REPORT HAS BEEN PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE WORK HEALTH AND SAFETY REGULATION 2017 AND THE WORK HEALTH AND SAFETY REGULATION PART 6.2 CLAUSE 295. UNDER THE WORK HEALTH AND SAFETY REGULATION DESIGNERS HAVE THE RESPONSIBILITY TO ENSURE THEIR DESIGN ELIMINATES OR MINIMISES RISKS TO HEALTH AND SAFETY AND GIVE ADEQUATE INFORMATION TO PEOPLE COMMISSIONING THE DESIGN AND UNDERTAKING CONSTRUCTION, OPERATION AND MAINTENANCE ACTIVITIES BASED ON THE DESIGN.

THE INFORMATION CONTAINED IN THIS SAFETY IN DESIGN REPORT HAS BEEN PREPARED PRIOR TO THE COMMENCEMENT OF THE WORK ON SITE. IT DOES NOT TAKE ACCOUNT OF ANY MATTERS OR INFORMATION WHICH MAY COME TO LIGHT AFTER THAT TIME. WHEN A DESIGN IS ALTERED, AN ADDITIONAL REVIEW MUST BE CONDUCTED TO ENSURE NEW RISKS HAVE BEEN CAPTURED DUE TO MODIFICATION OF THE DESIGN. ADDITIONALLY, CLIENTS ARE REQUIRED TO INFORM ENSPIRE OF ANY EXISTING RISKS AND HAZARDS IN THE AREA WHERE CONSTRUCTION WILL TAKE PLACE.

THE RISKS IDENTIFIED IN THIS SAFETY IN DESIGN REPORT ARE PROJECT AND DESIGN SPECIFIC RISKS WHICH WOULD NOT BE EASILY RECOGNIZED BY A REASONABLY COMPETENT STAKEHOLDER. IT DOES NOT ADDRESS THE COMMON-PLACE HAZARDS OR HAZARDS WHERE KNOWN SOLUTIONS APPLY, AND WHICH ARE ASSOCIATED WITH CONSTRUCTION, OPERATION AND MAINTENANCE AND DEMOLITION GENERALLY. THESE COMMON-PLACE HAZARDS MUST BE CONTROLLED BY THE APPLICATION OF NORMAL GOOD MANAGEMENT PRACTICES.

THIS DESIGN REPORT ASSUMES THAT DURING CONSTRUCTION, OPERATION AND MAINTENANCE OF THE DEVELOPMENT, THE PRINCIPAL WILL ENGAGE EXPERIENCED AND COMPETENT PERSONNEL AS PART OF THE RESPECTIVE TENDER EVALUATION PROCESS. IT IS THE HEAD CONTRACTOR'S OBLIGATION TO PREPARE AND IMPLEMENT SITE SPECIFIC WORK HEALTH AND SAFETY MANAGEMENT PLANS TO MITIGATE COMMON RISKS ASSOCIATED WITH GENERAL CONSTRUCTION AND OPERATION ACTIVITIES IN ACCORDANCE WITH THE WORK HEALTH AND SAFETY REGULATION 2017.

THE SCOPE OF THE MAIN ACTIVITIES INVOLVED IN THESE WORKS ARE:

- DEMOLITION
- DETAILED DESIGN OF STORMWATER INFRASTRUCTURE AND SERVICES;
- CONSTRUCTION OF STORMWATER INFRASTRUCTURE AND SERVICES;
- SITE VISITS AND INSPECTIONS;
- POST CONSTRUCTION OPERATION AND MAINTENANCE.

SAFETY IN DESIGN RELIES ON EFFECTIVE DOCUMENTATION AND COMMUNICATION BETWEEN EVERYONE INVOLVED IN THE LIFE CYCLE OF THE DESIGN ELEMENTS. IN ACCORDANCE WITH THE WORK HEALTH AND SAFETY REGULATION 2017, THE DESIGNER MUST PROVIDE A COPY OF THIS SAFETY IN DESIGN REPORT TO THE PRINCIPAL CONTRACTOR IN PARALLEL WITH THE COMPLETED DESIGN DOCUMENTATION AND ENSURE THAT THE FOLLOWING ACTIONS ARE UNDERTAKEN:

- ONSITE SAFETY INDUCTIONS, INCLUDING HAZARDS IDENTIFIED IN THIS REPORT, SHOULD BE CONDUCTED FOR ALL STAFF;
- SAFETY MANAGEMENT PLANS SHOULD BE PREPARED FOR THE HAZARDS IDENTIFIED IN THIS REPORT;
- THERE SHOULD BE NO VARIATION ON DESIGN REQUIREMENTS WITHOUT CONSULTATION WITH THE ORIGINAL DESIGNERS;
- ONSITE MANAGEMENT OF CONTRACTORS TO ENSURE THAT HAZARDS THAT ARISE THROUGH STARTING/COMPLETION OF JOBS DOES NOT OCCUR; AND
- THIS DESIGN MAY INTERFACE WITH OTHER PLANS AND ACCOUNT SHOULD BE TAKEN OF ANY INTERFACE ISSUES.

IT IS RECOMMENDED THAT THIS SAFETY IN DESIGN REPORT BE PASSED ONTO ANY PARTICIPANT IN THE PROJECT WHO MAY EXTEND THE DESIGN OR FURTHER DEVELOP THE DESIGN.

A SAFE DESIGN PROCESS SHOULD BE ENGAGED EARLY IN THE DEVELOPMENT OF THE DESIGN TO IDENTIFY ALL CONCEIVABLE RISKS AND HAZARDS THAT MAY AFFECT THE FUNDAMENTALS OF THE DESIGN AND AVOID UNNECESSARY REWORK. IT SHOULD BE IMPLEMENTED THROUGH A STRUCTURED APPROACH ACROSS EACH PHASE OF THE DESIGN PROCESS.

DELIVERY OF SAFE DESIGN FOR EACH DESIGN PHASE OF THE PROJECT HAS BEEN CARRIED OUT FOLLOWING THE STEPS BELOW:

- STEP 1: PRELIMINARY RISK IDENTIFICATION
- THE DESIGNER/DESIGN TEAM TO CONDUCT A PRELIMINARY ASSESSMENT AND IDENTIFY ANY POTENTIAL RISKS RELEVANT TO THE SCOPE OF DESIGN WORKS. WITH PROJECTS INVOLVING MULTIPLE DISCIPLINES, THE DESIGNER/DESIGN TEAM TO ATTEND SAFETY IN DESIGN WORKSHOP (IF APPROPRIATE) AND IDENTIFY RISKS IN CONSULTATION WITH OTHER KEY PROJECT STAKEHOLDERS.
- STEP 2: RISK ASSESSMENT AND MITIGATION
- THE DESIGNER/DESIGN TEAM TO ASSESS THE LIKELIHOOD AND SEVERITY OF EACH HAZARD AND DEVELOP CONTROLS AND MEASURES TO ELIMINATE OR MINIMISE THE CONSEQUENCES OF THE HAZARD.
- STEP 3: VERIFICATION
- ENSURE TO PERFORM INTERNAL VERIFICATION ON THE SAFE DESIGN RISK REGISTER PRIOR TO ISSUING TO THE CONTRACTOR AND CLIENT.
- STEP 4: REVIEW DESIGN
- THE DESIGNER/DESIGN TEAM TO IDENTIFY ANY ALTERATIONS IN DESIGN AND REVIEW AND UPDATE RISK REGISTER ACCORDINGLY.

ORGANISATION	PROJECT ROLE	MAIN CONTACT	CONTACT DETAILS
HOMES NSW	DEVELOPMENT PROPONENT	GULIVER COOTE	TEL: 02 9374 3662 EMAIL: GULLIVER.COOTE@HOMES.NSW.GOV.AU ADD: LEVEL 4, 4 PARRAMATTA SQUARE, 12 DARCY STREET, PARRAMATTA NSW 2150
ENSPIRE SOLUTIONS	CIVIL DESIGN CONSULTANT	RICK ANDREW	TEL: 02 9922 6135 EMAIL: RICK.ANDREW@ENSPIRESOLUTIONS.COM.AU ADD: LEVEL 4, 153 WALKER STREET, NORTH SYDNEY NSW 2060

LEVEL	MEASURE	CRITERIA
1	RARE	WOULD ONLY OCCUR IN HIGHLY EXCEPTIONAL CIRCUMSTANCES THAT ARE UNLIKELY TO EXIST IN ANY PHASE OF THE DEVELOPMENT'S LIFECYCLE PERIOD. EXTREMELY REMOTE CHANCE OF OCCURRENCE IN DEVELOPMENT'S LIFECYCLE PERIOD. 'ONCE IN A LIFETIME' EVENT.
2	UNLIKELY	NOT LIKELY TO OCCUR IN THE DEVELOPMENT'S LIFECYCLE PERIOD. A SMALL, BUT REMOTE CHANCE OF OCCURRENCE DUE TO CIRCUMSTANCES / SITUATIONS THAT COULD ARISE.
3	POSSIBLE	LIKELY TO OCCUR AT LEAST ONCE BUT NOT EXPECTED TO OCCUR MUCH MORE THAN THIS IN THE DEVELOPMENT'S LIFECYCLE PERIOD.
4	LIKELY	LIKELY TO OCCUR MORE THAN ONCE IN THE DEVELOPMENT'S LIFECYCLE PERIOD BUT NOT AN 'EVERYDAY' OCCURRENCE. PRECONDITIONS WILL ARISE AT TIMES THROUGHOUT THE PERIOD.
5	ALMOST CERTAIN	WILL OCCUR. CIRCUMSTANCES OR SITUATIONS ARE LIKELY TO ARISE OFTEN THROUGHOUT THE DEVELOPMENT'S LIFECYCLE PERIOD WHICH PROVIDES THE OPPORTUNITY FOR CRYSTALLISATION OF RISK. EXPECT FREQUENT, REGULAR OCCURRENCES.

LEVEL	MEASURE	CRITERIA
1	INSIGNIFICANT	NO INJURIES; NO ENVIRONMENTAL IMPACT.
2	MINOR	FIRST AID; ENVIRONMENTAL RELEASE IMMEDIATELY CONTAINED.
3	MODERATE	MEDICAL TREATMENT; ENVIRONMENTAL RELEASE NOT IMMEDIATELY CONTAINED WITH NO DETRIMENTAL EFFECTS.
4	MAJOR	LOST TIME AND/OR LONG-TERM INJURY/ILLNESS; ENVIRONMENTAL RELEASE NOT IMMEDIATELY CONTAINED WITH TOXIC EFFECTS.
5	CATASTROPHIC	FATALITY; RELEASE TO THE ENVIRONMENT WITH LONG TERM OR PERMANENT TOXIC EFFECTS.

CONSEQUENCE	CATASTROPHIC	(5)	HIGH	VERY HIGH	VERY HIGH	VERY HIGH	VERY HIGH
	MAJOR	(4)	HIGH	HIGH	VERY HIGH	VERY HIGH	VERY HIGH
	MODERATE	(3)	MODERATE	MODERATE	HIGH	HIGH	VERY HIGH
	MINOR	(2)	LOW	LOW	MODERATE	HIGH	VERY HIGH
	INSIGNIFICANT	(1)	LOW	LOW	LOW	MODERATE	HIGH
		RARE (1)	UNLIKELY (2)	POSSIBLE (3)	LIKELY (4)	ALMOST CERTAIN (5)	
		LIKELIHOOD					

ITEM	ACTIVITY	HAZARD	STAGE	INITIAL RISK			DESIGN ACTION	RESIDUAL RISK			PERSON RESPONSIBLE FOR CONTROLS	STATUS
				LIKELIHOOD	CONSEQUENCE	RISK LEVEL		LIKELIHOOD	CONSEQUENCE	RISK LEVEL		
1	SEDIMENT BASIN OPERATION	FALLING INTO BASIN WHICH HOLDS WATER	CONSTRUCTION	2	5	VERY HIGH	- PROVIDE BATTER SLOPES SUITABLE FOR SAFE EGRESS. - MAINTAIN WATER LEVELS IN BASIN. - MINIMISE PERMANENT WATER DEPTH.	2	3	MODERATE	CONTRACTOR	IDENTIFIED
2	TREE REMOVAL	- FALL FROM HEIGHT - CRUSH INJURY FROM FALLING TREE	CONSTRUCTION	2	5	VERY HIGH	- LIMIT NUMBER OF TREES TO BE REMOVED. - CERTIFIED ARBORIST USING BEST PRACTICES RESPONSIBLE FOR TREE REMOVAL.	2	3	MODERATE	CONTRACTOR	IDENTIFIED
3	PIPE TRENCHING	FALL INTO DEEP EXCAVATIONS	CONSTRUCTION	1	4	HIGH	- MINIMISE PIPE TRENCH DEPTH	1	2	LOW	CONTRACTOR	IDENTIFIED

[illegible]