TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS
HAUL ROAD
No. 27307-BE1

SCHEDULE OF DRAWINGS

NUMBER	REV. NO.	TITLE
GENERAL		
27307-BE1-000	A	COVER SHEET
27307-BE1-005	A	PROPOSED HAUL ROAD & FILL SEQUENCING PLAN SHEET 01
27307-BE1-006	A	PROPOSED HAUL ROAD & FILL SEQUENCING PLAN SHEET 02
EARTHWORKS: EXISTING FEATURES & DEMOLITION		
27307-BE1-020	A	PLAN SHEET 01
27307-BE1-021	A	PLAN SHEET 02
27307-BE1-022	A	PLAN SHEET 03
27307-BE1-023	A	PLAN SHEET 04
EARTHWORKS: TREE PRESERVATION & CLEARING		
27307-BE1-030	A	PLAN SHEET 01
27307-BE1-031	A	PLAN SHEET 02
27307-BE1-032	A	PLAN SHEET 03
27307-BE1-033	A	PLAN SHEET 04
EARTHWORKS: BULK EARTHWORKS CUT FILL		
27307-BE1-040	A	PLAN SHEET 01
27307-BE1-041	A	PLAN SHEET 02
27307-BE1-042	A	PLAN SHEET 03
27307-BE1-043	A	PLAN SHEET 04
27307-BE1-044	A	PLAN SHEET 05
27307-BE1-045	A	PLAN SHEET 06
27307-BE1-046	A	PLAN SHEET 07
27307-BE1-047	A	PLAN SHEET 08
27307-BE1-048	A	PLAN SHEET 09
EARTHWORKS: BULK EARTHWORKS SECTIONS		
27307-BE1-050	A	EARTHWORKS SECTION KEY PLAN
27307-BE1-051	A	SECTIONS SHEET 01
27307-BE1-052	A	SECTIONS SHEET 02
27307-BE1-060	A	PERIMIETER EARTHWORKS SECTION KEY PLAN
27307-BE1-061	A	SECTIONS TURNOCK ST NORTH PERIMETER SHEET 01
27307-BE1-062	A	SECTIONS TURNOCK ST NORTH PERIMETER (Cont.) SHEET 02
27307-BE1-063	A	SECTIONS TURNOCK ST NORTH PERIMETER (Cont.) SHEET 03
27307-BE1-064	A	SECTIONS TURNOCK ST NORTH PERIMETER (Cont.) SHEET 04
27307-BE1-065	A	SECTIONS TURNOCK ST NORTH PERIMETER (Cont.) SHEET 05
27307-BE1-066	A	SECTIONS TURNOCK ST SOUTH PERIMETER SHEET 01
27307-BE1-067	A	SECTIONS TURNOCK ST SOUTH PERIMETER (Cont.) SHEET 02
27307-BE1-068	A	SECTIONS TURNOCK ST SOUTH PERIMETER (Cont.) SHEET 03
EARTHWORKS: FINAL SURFACE & SEDIMENT AND EROSION CONTROL		
27307-BE1-080	A	PLAN SHEET 01
27307-BE1-081	A	PLAN SHEET 02
27307-BE1-082	A	PLAN SHEET 03
27307-BE1-083	A	PLAN SHEET 04
27307-BE1-084	A	PLAN SHEET 05
27307-BE1-085	A	PLAN SHEET 06
27307-BE1-086	A	PLAN SHEET 07
27307-BE1-087	A	PLAN SHEET 08
27307-BE1-088	A	PLAN SHEET 09
DRAINAGE		
27307-BE1-600	A	SWALE PLAN

BITZIOS CONSULTING DRAWINGS

NUMBER	ISSUE NO.	TITLE
P4681-1	001	OPTION 3 SWEPT PATH ASSESSMENT
P4681-2	002	OPTION 3 SWEPT PATH ASSESSMENT

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

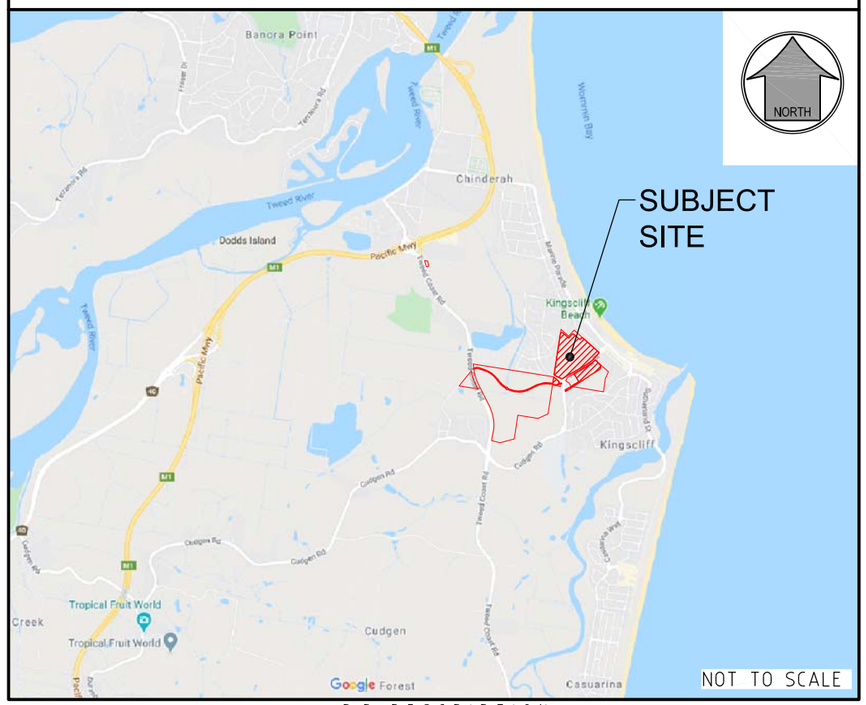
COMPASS ASSURANCE ISO 9001 QUALITY

CLIENT

GALES HOLDINGS

SUB-CONSULTANTS

LOCALITY PLAN



R. P. DESCRIPTION
Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753,
Lot 14 on DP871753, Part of Lot 26C on DP10715,
Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699,
Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD
& TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

DRAWING NUMBER	AMEND.
27307-BE1-000	A

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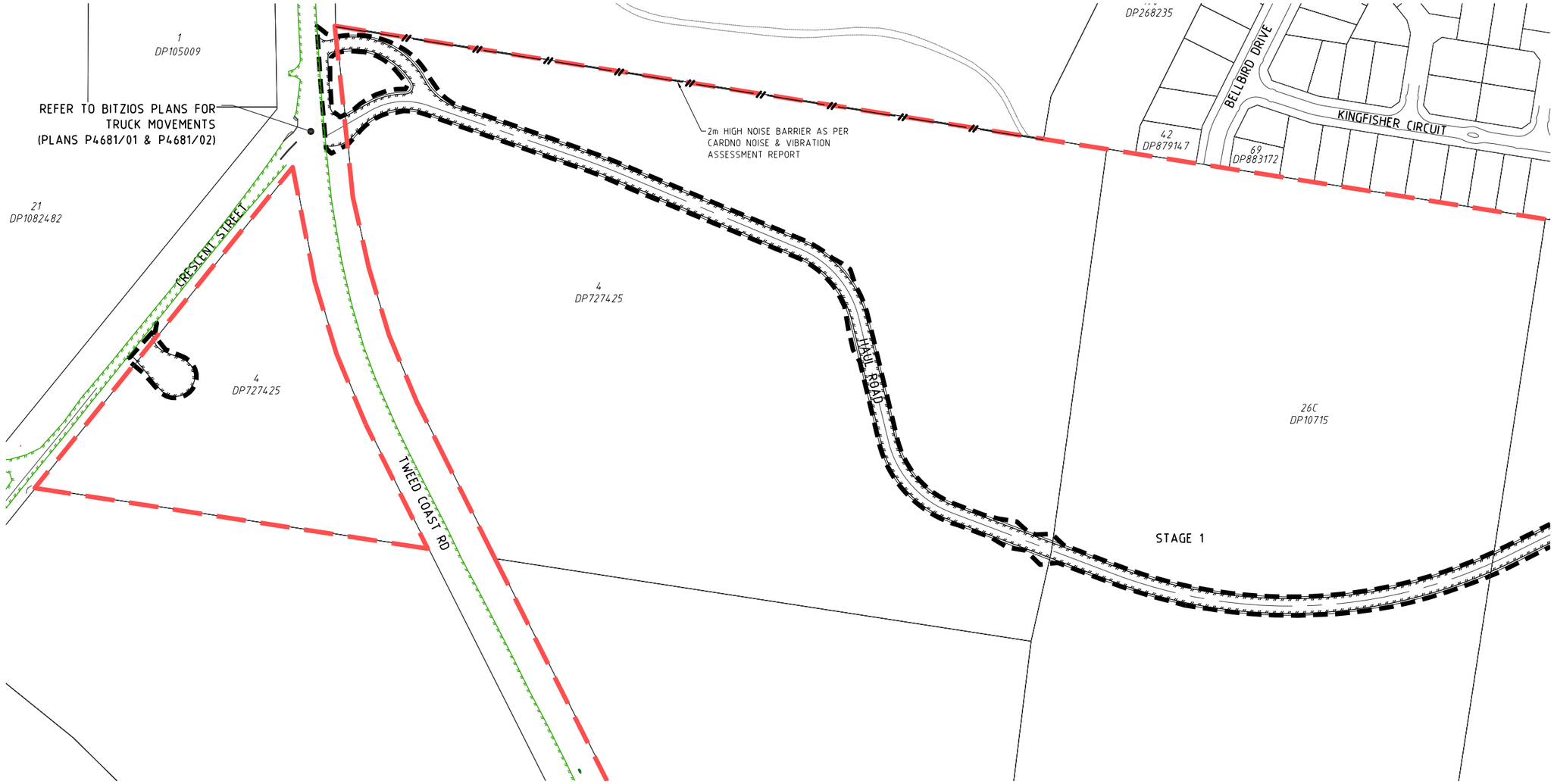


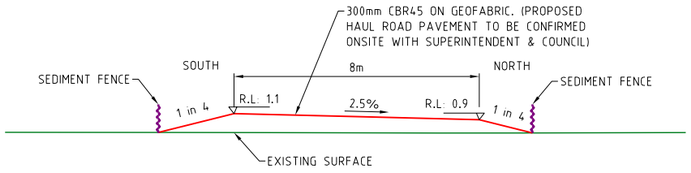
GENERAL

1. CONTRACT SPECIFICATIONS
   ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE CONTRACT SPECIFICATION.
2. SETOUT
   SURVEY SETOUT INFORMATION HAS BEEN ESTABLISHED ON SITE BY THE PRINCIPAL'S SURVEYOR TO ENABLE THE CONTRACTOR TO ACCURATELY SETOUT THE WORKS TO THE CO-ORDINATES SHOWN. SETOUT INFORMATION SHALL NOT BE OBTAINED BY SCALING FROM THESE DRAWINGS.
3. DATUM
   LEVELS SHOWN ARE TO A.H.D.
4. TRENCH SPOIL
   ALL MATERIALS ARISING FROM ROADS & SERVICES ARE TO BE COMPACTED TO FUTURE STAGES, TO LEVEL 1 IF NO SPOIL AREA IS AVAILABLE THESE MATERIALS SHALL BE TRUCKED TO A LICENSED TIP. THESE WORKS FORM PART OF THE CONTRACTED WORKS.
5. CHECK ELECTRONIC SETOUT
   CONTRACTOR IS RESPONSIBLE TO ENSURE ANY ELECTRONIC DATA FILES MATCH THE DRAWINGS.
6. PRE START
   a. ERECT SITE SIGNAGE. CONSTRUCT ENTRY & EXIT POINT AS INDICATED.
   b. CONSTRUCT VEHICLE WASHDOWN AREA & ASSOCIATED SILT MANAGEMENT DEVICES.
   c. CONSTRUCT SITE OFFICE & STORAGE COMPOUND AREA.
   d. INSTALL EROSION & SEDIMENT CONTROL DEVICES AS PER THE CONTRACTOR'S EROSION & SEDIMENT CONTROL PLAN.
   e. ERECT TEMPORARY TREE PROTECTION FENCING IN ACCORDANCE WITH THE APPROVED VEGETATION MANAGEMENT PLAN & AUTHORITIES APPROVAL CONDITIONS (IF REQUIRED).
7. HEALTH & SAFETY
   ALL WORKS UNDERTAKEN BY THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE WORKPLACE HEALTH & SAFETY LEGISLATION.
8. STOCKPILING
   STOCKPILING OF ANY SURPLUS MATERIAL IS NOT PERMITTED

PROJECT SPECIFIC REPORTS

THE CONTRACTOR MUST FOLLOW THE RECOMMENDATIONS & PROCEDURES OUTLINED IN THE FOLLOWING REPORTS AT ALL TIMES:

a) GEOTECHNICAL INVESTIGATION REPORTS (INCLUDING ANY ACID SULPHATE OR DISPERSIVE SOIL REPORTING)
b) VEGETATION & FAUNA MANAGEMENT PLANS
c) OTHER MANAGEMENT PLANS NOMINATED IN THE CONTRACT, AUTHORITIES APPROVAL CONDITIONS OR BY THE SUPERINTENDENT.



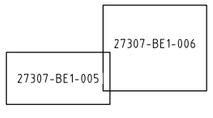
TYPICAL SECTION HAUL ROAD

SCALE 1:100 - A1 (1:200 - A3)

LEGEND

- EXISTING PROPERTY LINE
- EXISTING KERB (INVERT)
- EXISTING EDGE OF BITUMEN
- FUTURE PROPERTY LINE
- FUTURE KERB (INVERT)
- PROPOSED PROPERTY LINE
- PROPOSED KERB (INVERT)
- PROPOSED EDGE OF BITUMEN
- SITE BOUNDARY
- FILL SEQUENCING BOUNDARY
- LIMIT OF WORKS BOUNDARY

SHEET LAYOUT



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PROJECT NAME

TURNOCK ST, KINGSCLIFF
BULK EARTHWORKS
HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

0 12.5 25 37.5 50 62.5m
Scale 1:1250 - A1 (1:2500 - A3)

ISSUES	DATE	
TENDER		
COUNCIL	09-10-20	
CONSTRUCTION	..	

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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ASSOCIATED CONSULTANTS

DRAWING TITLE

PROPOSED HAUL ROAD
&
FILL SEQUENCING
PLAN
SHEET 01

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APPROVED	NER 906726	DATE	25-06-20

DRAWING NUMBER	AMEND.
27307-BE1-005	A

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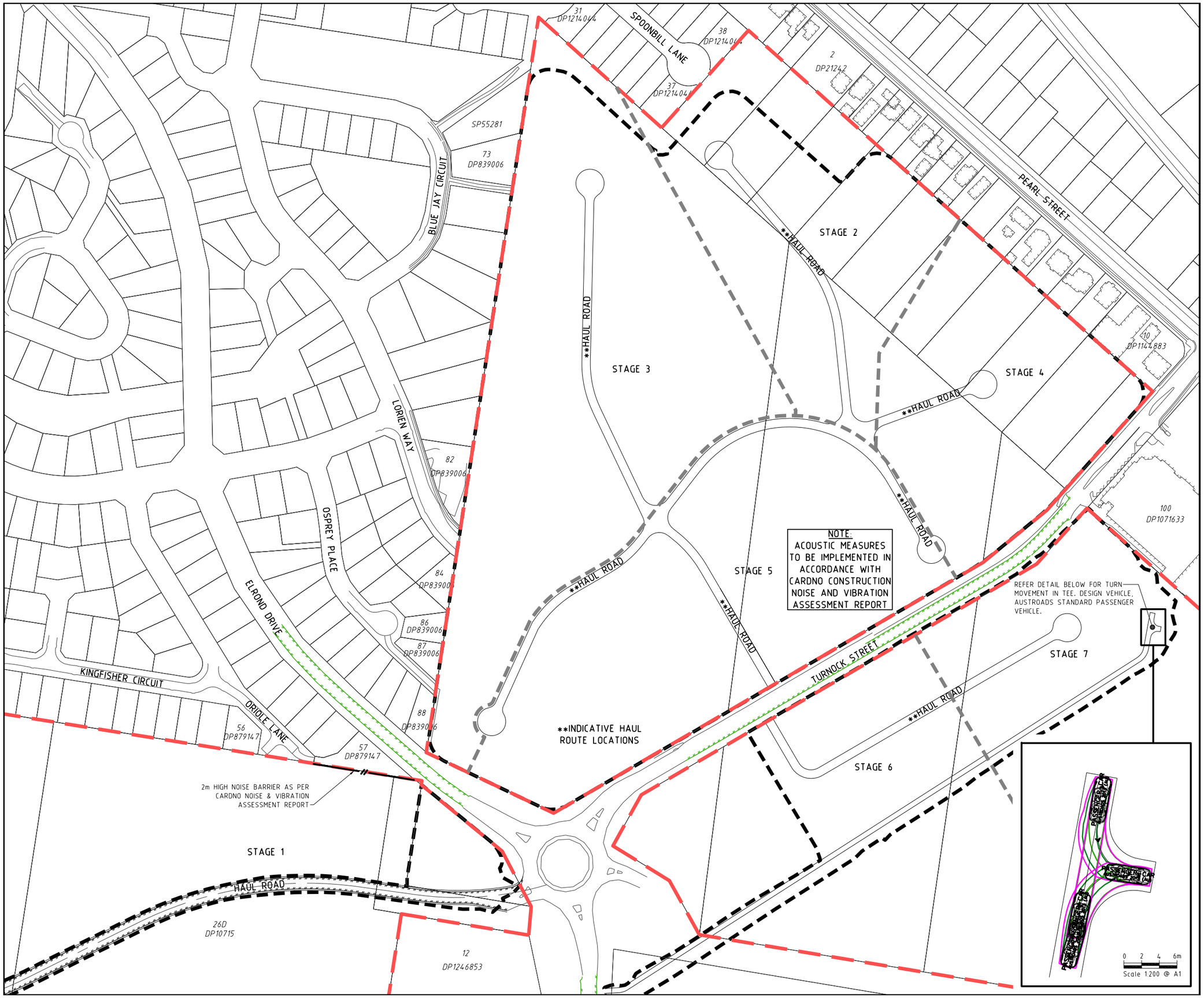

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298 TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

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NORTH

0 12.5 25 37.5 50 62.5m
Scale 1:1250 - A1 (1:2500 - A3)

ISSUES	DATE	
TENDER		
COUNCIL	09-10-20	
CONSTRUCTION	..	

PRE	DATE	AMENDMENT
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DRAWING TITLE

PROPOSED HAUL ROAD & FILL SEQUENCING PLAN SHEET 02

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APPROVED	NER 906726	DATE	25-06-20

DRAWING NUMBER	AMEND.
27307-BE1-006	A

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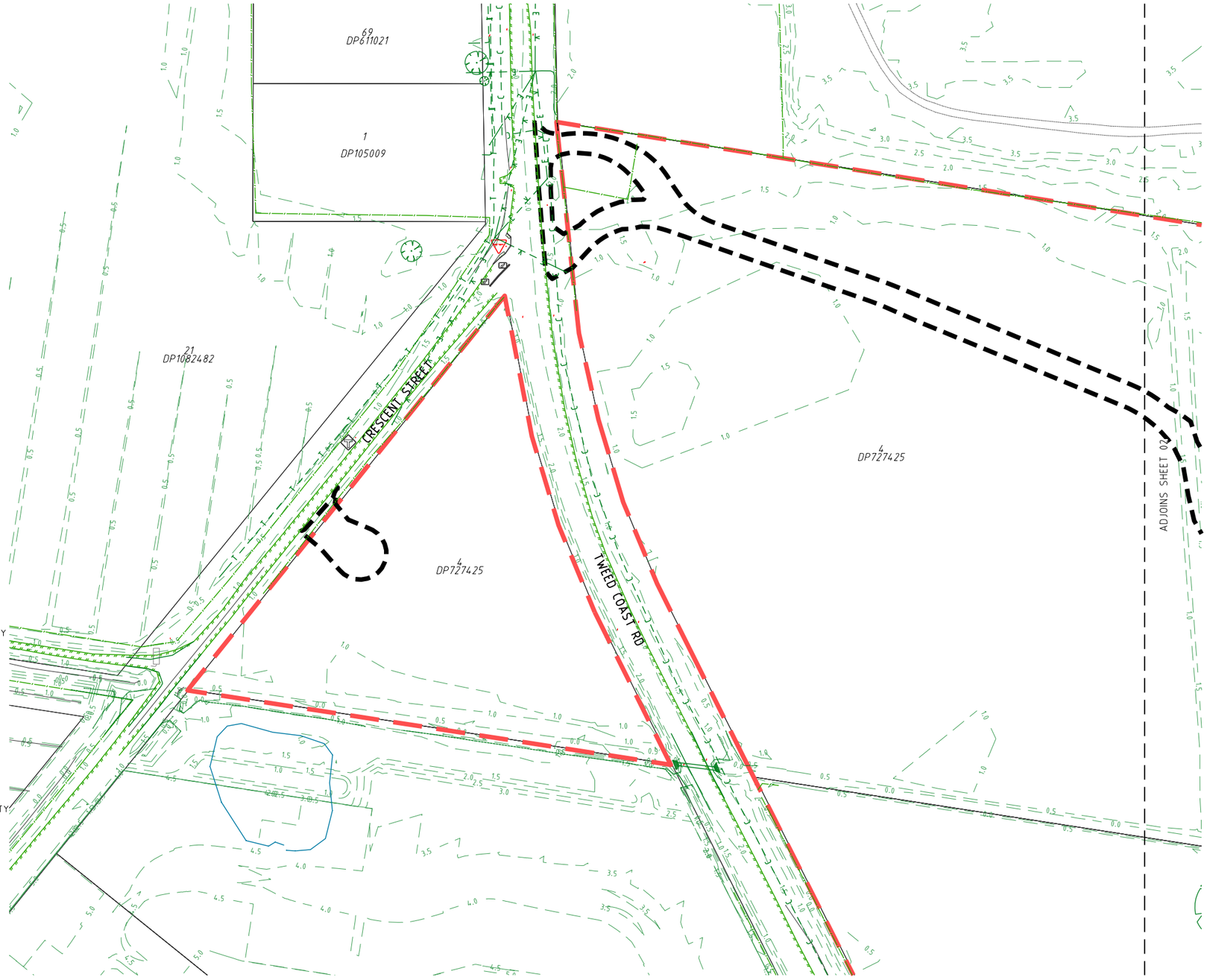
GENERAL

1. EXISTING SERVICES - EXTERNAL WORKS
   THE LOCATIONS OF ALL EXISTING SERVICES WITHIN THE WORK AREA SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION COMMENCING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE RELEVANT AUTHORITIES & TO ENSURE THAT THE EXISTING SERVICES ARE NOT DAMAGED OR DISTURBED IN ANY WAY BY THE CONTRACT WORKS.
2. EXISTING STRUCTURES
   ALL EXISTING STRUCTURES & ASSOCIATED INFRASTRUCTURE TO BE REMOVED & DISPOSED OF OFF SITE.
3. EXISTING DAMS
   EXISTING DAMS TO BE DEWATERED. ALL SILT & DEBRIS ARE TO BE REMOVED & LAWFULLY DISPOSED OF TO A TIP OFF SITE, OR INCORPORATED INTO THE SITE EARTHWORKS AT THE DIRECTION OF THE GEOTECHNICAL ENGINEER. REPLACEMENT FILL IS TO BE LOCATED & COMPACTED IN ACCORDANCE WITH LOCAL COUNCIL'S SPECIFICATIONS.

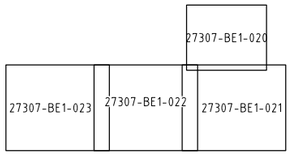
NOTE:
CONTRACTOR TO MAKE ALL NECESSARY ALLOWANCES FOR LOCATION AND PROTECTION OF EXISTING SERVICES DURING WORKS.

LEGEND

- EXISTING PROPERTY LINE
- EXISTING FENCE
- EXISTING KERB
- EXISTING EDGE OF BITUMEN
- CONTROL LINE / CENTER OF ROAD
- EXISTING FOOTPATH
- EXISTING EDGE OF VEGETATION
- RM — EXISTING RISING MAIN
- S — EXISTING SEWER
- SW — EXISTING STORMWATER
- W — EXISTING WATER
- G — EXISTING GAS
- E — EXISTING UNDERGROUND ELECTRICITY
- E — EXISTING OVERHEAD ELECTRICITY
- T — EXISTING TELSTRA
- C — EXISTING COMMUNICATIONS
- 1.0 — EXISTING CONTOURS MAJOR
- 1.5 — EXISTING CONTOURS MINOR
- RM — DEMOLISH RISING MAIN
- S — DEMOLISH SEWER
- SW — DEMOLISH STORMWATER
- W — DEMOLISH WATER
- G — DEMOLISH GAS
- E — DEMOLISH UNDERGROUND ELECTRICITY
- E — DEMOLISH OVERHEAD ELECTRICITY
- T — DEMOLISH TELSTRA
- C — DEMOLISH COMMUNICATIONS
- SITE BOUNDARY
- STAGE BOUNDARY
- LIMIT OF WORKS BOUNDARY
- TREE PROTECTION FENCE
- TREES TO BE RETAINED
- TREES TO BE REMOVED



SHEET LAYOUT



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PROJECT NAME

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BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION
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LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT
GALES HOLDINGS

NORTH

0 10 20 30 40 50m
Scale 1:1000 - A1 (1:2000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
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ASSOCIATED CONSULTANTS

DRAWING TITLE
EXISTING FEATURES AND DEMOLITION PLAN SHEET 01

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APPROVED		NER 906726	DATE 25-06-20

DRAWING NUMBER 27307-BE1-020
AMEND. A

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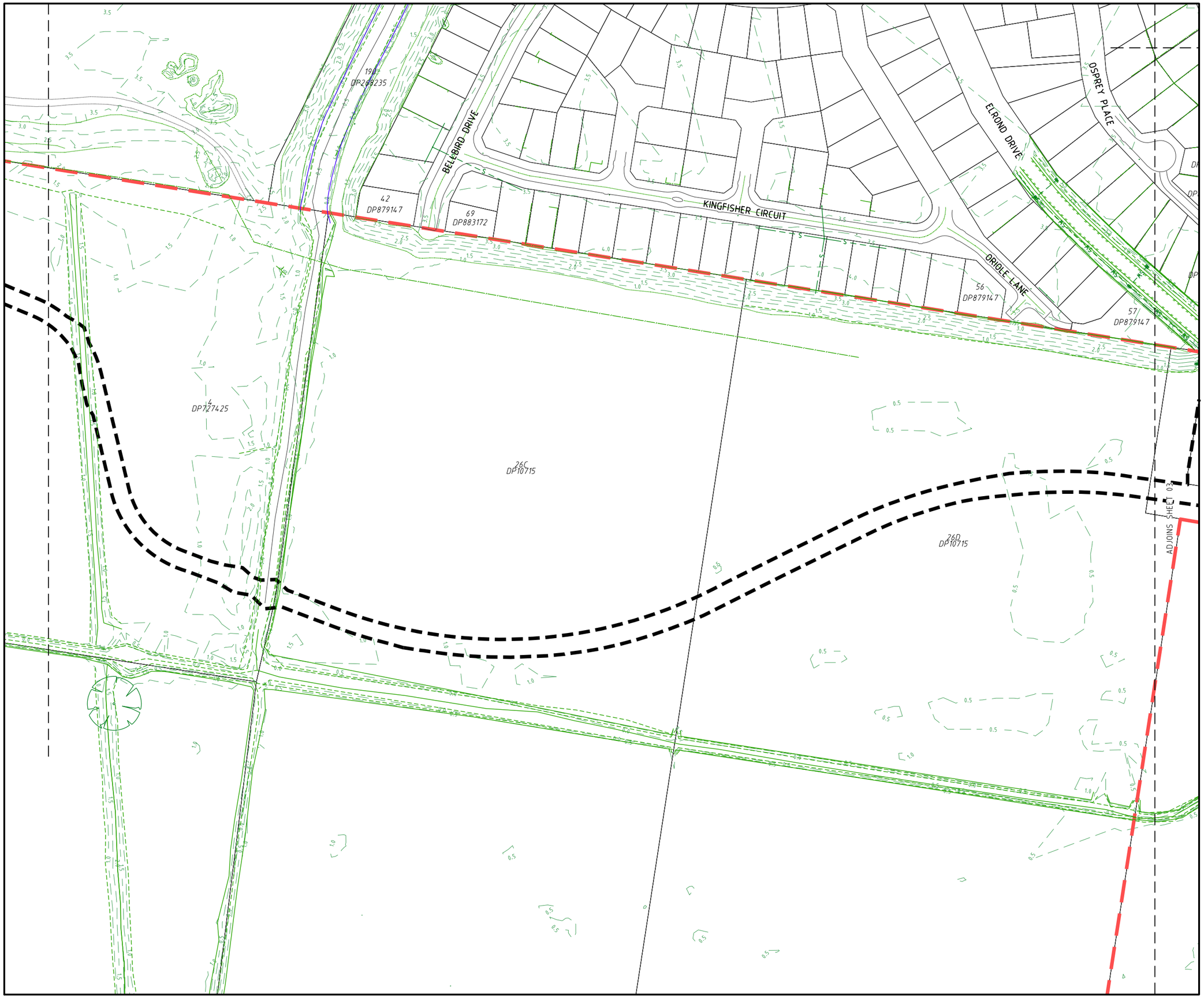

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CLIENT

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COUNCIL	09-10-20	
CONSTRUCTION	..	

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EXISTING FEATURES AND DEMOLITION PLAN SHEET 02

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APPROVED | NER 906726 | DATE 25-06-20

DRAWING NUMBER 27307-BE1-021 | AMEND. A

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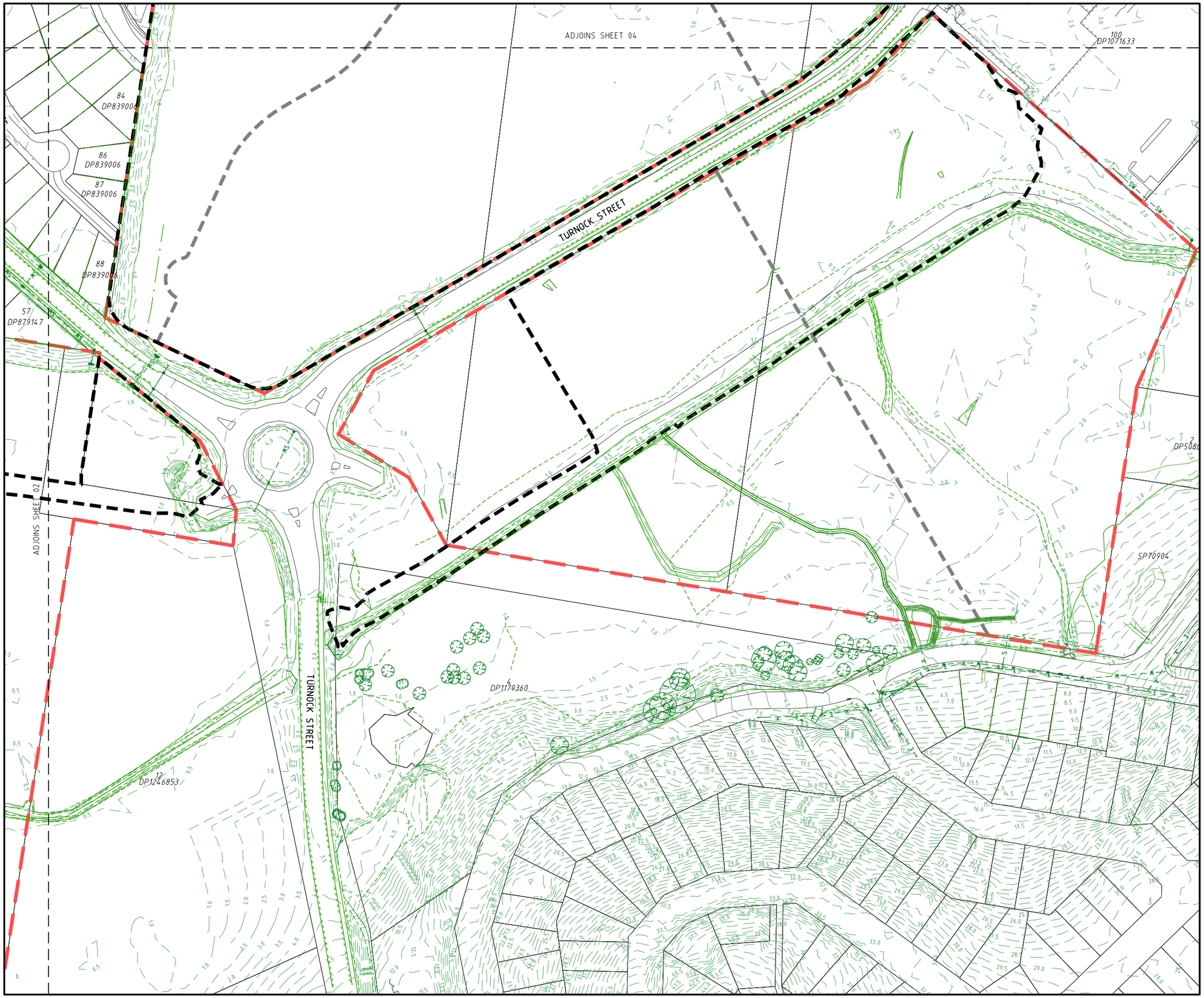

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NORTH

0 10 20 30 40 50m
Scale 1:1000 - A1 (1:2000 - A3)

ISSUES	DATE	
TENDER		
COUNCIL	09-10-20	
CONSTRUCTION	..	

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DRAWING TITLE

EXISTING FEATURES AND DEMOLITION PLAN SHEET 03

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Southport QLD 4215

DESIGNED RB	DRAWN EP	
APPROVED	NER 906726	DATE 25-06-20

DRAWING NUMBER	AMEND.
27307-BE1-022	A

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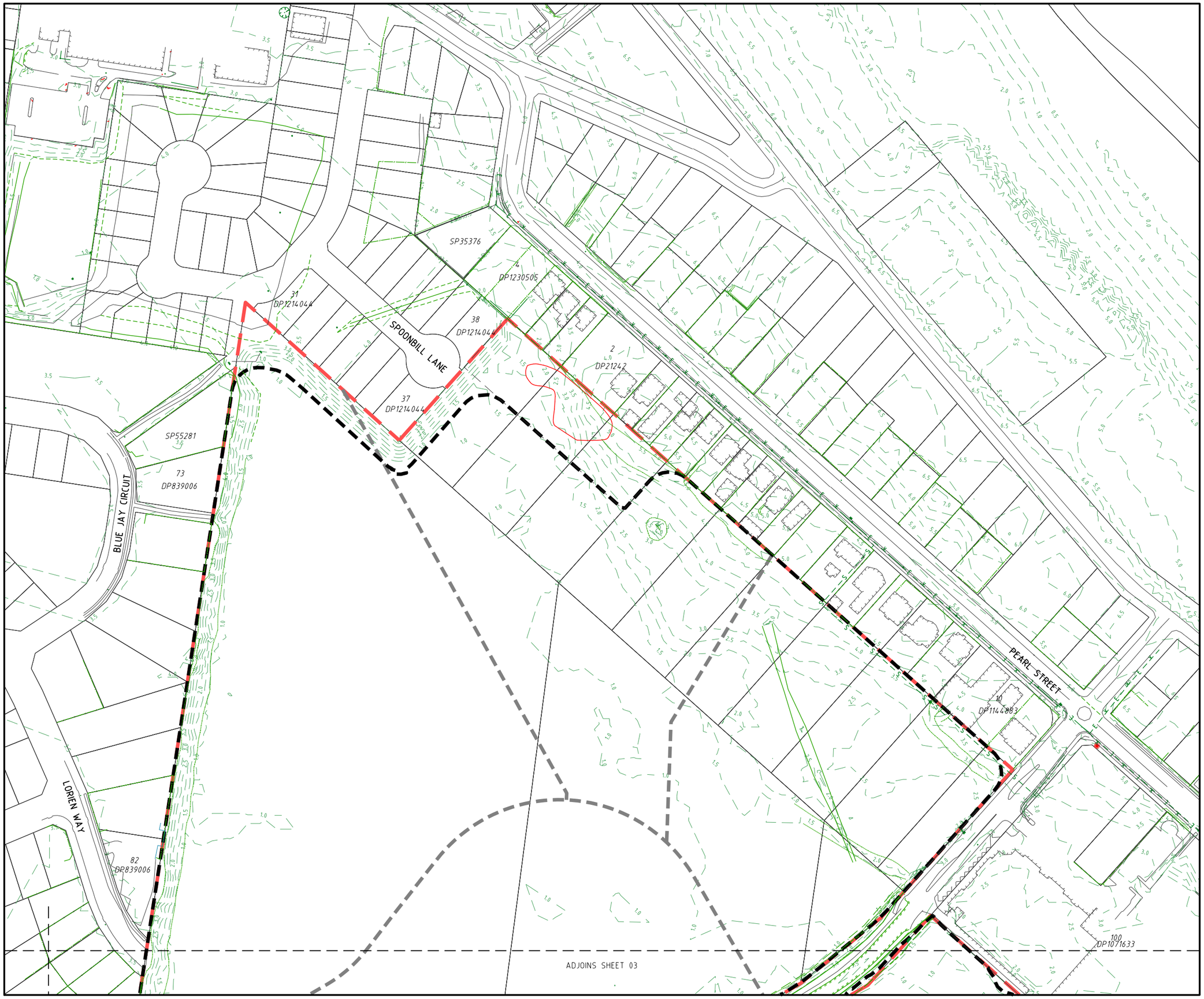

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NORTH

0 10 20 30 40 50m
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ISSUES	DATE
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CONSTRUCTION	..

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DRAWING TITLE

EXISTING FEATURES AND DEMOLITION PLAN
SHEET 04

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APPROVED	NER 906726	DATE 25-06-20

DRAWING NUMBER	AMEND.
27307-BE1-023	A

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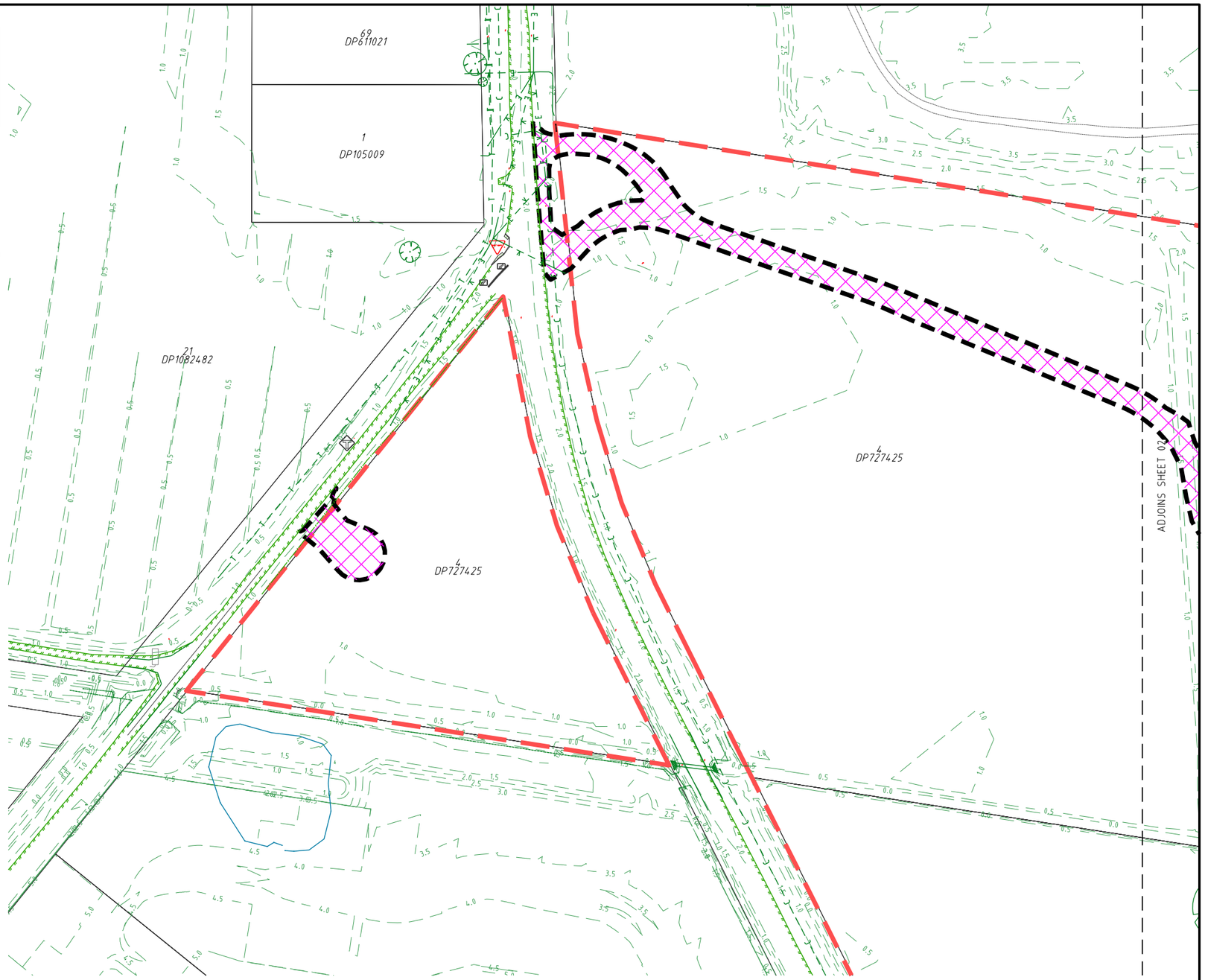
ALL VEGETATION CLEARING AND PROTECTION TO BE PERFORMED IN ACCORDANCE WITH THE APPROVED VEGETATION MANAGEMENT PLAN AND COUNCIL'S APPROVAL CONDITIONS.

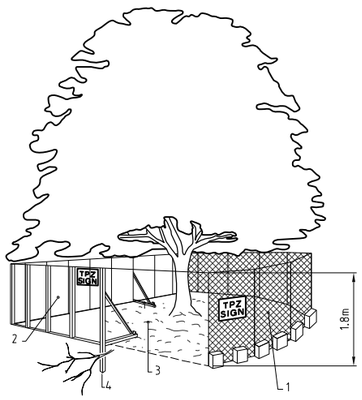
VEGETATION CLEARING & PRESERVATION

1. PRECAUTIONS SHOULD BE TAKEN TO ENSURE PROPOSED ACTIVITIES ARE OUTSIDE THE PROTECTED ZONE.
2. DO NOT PLACE SOIL OR FILL FROM EXCAVATIONS AGAINST TREE TRUNKS OR ON ROOTS ATTACHED TO THE PARENT PLANT, EVEN FOR SHORT PERIODS.
3. DO NOT DE-BARK OR IMPACT ANY TREE TRUNK, ATTACH ANY STAYS, GUYS, WIRES ETC TO TREES WITHIN THE PROTECTED ZONE.
4. ENSURE THAT THERE IS NO REMOVAL OF TOPSOIL FROM WITHIN THE "TREE PROTECTION ZONE" (TPZ) UNLESS OTHERWISE APPROVED BY A SUITABLY QUALIFIED VEGETATION ARBORIST.
5. ENSURE THAT THERE IS NO PARKING OF VEHICLES OR HEAVY MACHINERY WITHIN THE TPZ OR BUFFER AREA (IF DIRECTED BY PROJECT ARBORIST) TO THE TPZ.
6. THE CONSTRUCTION CONTRACTOR IS NOT TO UNDERTAKE ANY PRUNING OF TREES. TREE MANAGEMENT IS TO BE UNDERTAKEN BY A SUITABLY QUALIFIED ARBORIST.
7. NO CLEARING OF PROTECTED SIZE VEGETATION IS TO OCCUR WITHOUT APPROVAL FROM THE RELEVANT AUTHORITY.

LEGEND

- EXISTING PROPERTY LINE
- EXISTING FENCE
- EXISTING KERB
- EXISTING EDGE OF BITUMEN
- EXISTING FOOTPATH
- EXISTING EDGE OF VEGETATION
- RM — EXISTING RISING MAIN
- S — EXISTING SEWER
- SW — EXISTING STORMWATER
- W — EXISTING WATER
- G — EXISTING GAS
- E — EXISTING UNDERGROUND ELECTRICITY
- E — EXISTING OVERHEAD ELECTRICITY
- T — EXISTING TELSTRA
- C — EXISTING COMMUNICATIONS
- 1.0 — EXISTING CONTOURS MAJOR
- 1.5 — EXISTING CONTOURS MINOR
- SITE BOUNDARY
- STAGE BOUNDARY
- LIMIT OF WORKS BOUNDARY
- TREE PROTECTION FENCE
- TREES TO BE RETAINED
- TREES TO BE REMOVED
- AREA OF VEGETATION TO BE CLEARED





AS4970 TREE PROTECTION FENCING

NOT TO SCALE

NOTES:

1. CHAIN WIRE MESH PANELS WITH SHADE CLOTH (IF REQUIRED) ATTACHED, HELD IN PLACE WITH CONCRETE FEET.
2. ALTERNATIVE PLYWOOD OR WOODEN PALING FENCE PANELS. THIS FENCING MATERIAL ALSO PREVENTS BUILDING MATERIALS OR SOIL ENTERING THE TPZ.
3. MULCH INSTALLATION ACROSS SURFACE OF TPZ (AT THE DISCRETION OF THE PROJECT ARBORIST.) NO EXCAVATION, CONSTRUCTION ACTIVITY, GRADE CHANGES, SURFACE TREATMENT OR STORAGE OF MATERIALS OF ANY KIND IS PERMITTED WITHIN THE TPZ.
4. BRACING IS PERMITTED WITHIN THE TPZ. INSTALLATION OF SUPPORTS SHOULD AVOID DAMAGING ROOTS.

DETERMINING THE TPZ

THE RADIUS OF THE TPZ IS CALCULATED FOR EACH TREE BY MULTIPLYING ITS DBH X 12.

- TPZ = DBH X 12

WHERE: DBH = TRUNK DIAMETER MEASURED AT 1.4m ABOVE GROUND & THE RADIUS IS MEASURED FROM THE CENTRE OF THE STEM AT GROUND LEVEL.

NOTE: A TPZ SHOULD NOT BE LESS THAN 2m NOR GREATER THAN 15m (EXCEPT WHERE CROWN PROTECTION IS REQUIRED). THE TPZ OF PALMS, OTHER MONOCOTS, CYCADS & TREE FERNS SHOULD NOT BE LESS THAN 1m OUTSIDE THE CROWN PROJECTION.

SHEET LAYOUT

		27307-BE1-033
27307-BE1-030	27307-BE1-031	27307-BE1-032

TREE PROTECTION FENCE LOCATION TO BE DETERMINED ON SITE WITH COUNCIL, THE CLIENTS ARBORIST AND THE SUPERINTENDENT.

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PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS
HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

0 10 20 30 40 50m
Scale 1:1000 - A1 (1:2000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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ASSOCIATED CONSULTANTS

DRAWING TITLE

TREE CLEARING AND PRESERVATION PLAN SHEET 01

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Project Coordination
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APPROVED		NER 906726	DATE 25-06-20

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27307-BE1-030	A

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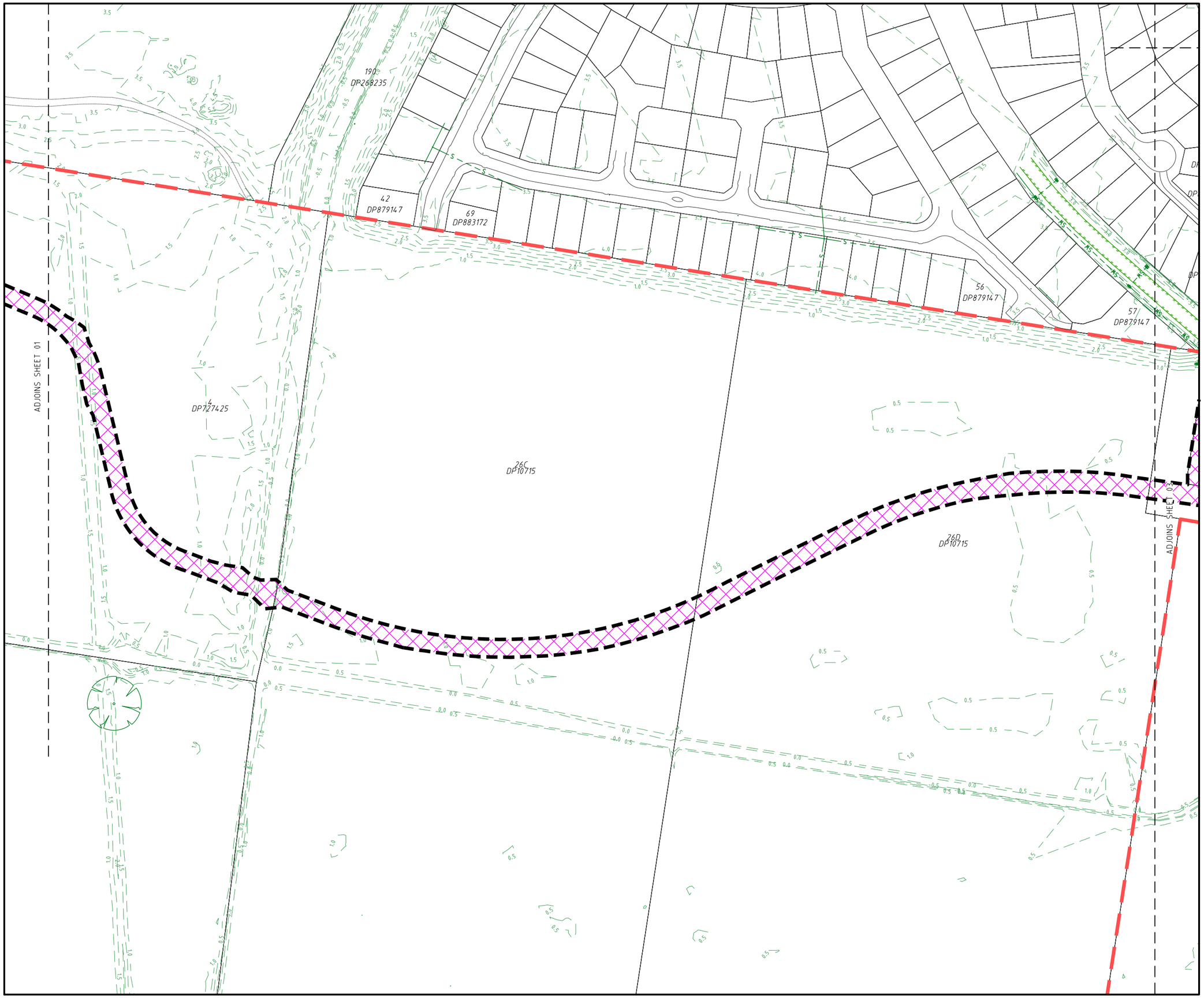

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TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

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NORTH

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TREE CLEARING AND PRESERVATION PLAN SHEET 02

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APPROVED	NER 906726	DATE 25-06-20

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27307-BE1-031	A

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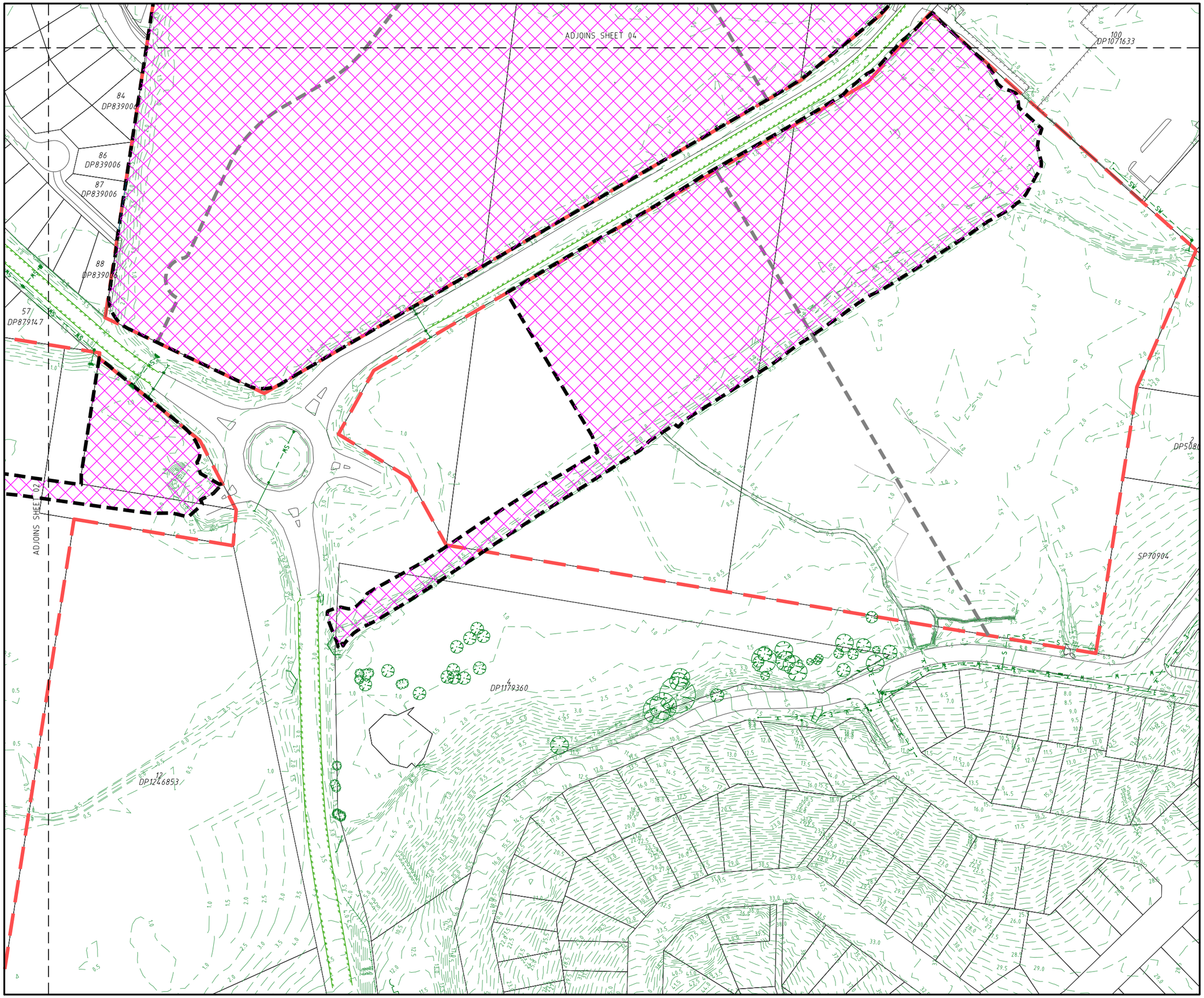

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

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LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

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Scale 1:1000 - A1 (1:2000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
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DRAWING TITLE

TREE CLEARING
AND PRESERVATION
PLAN
SHEET 03

MORTONS urbansolutions
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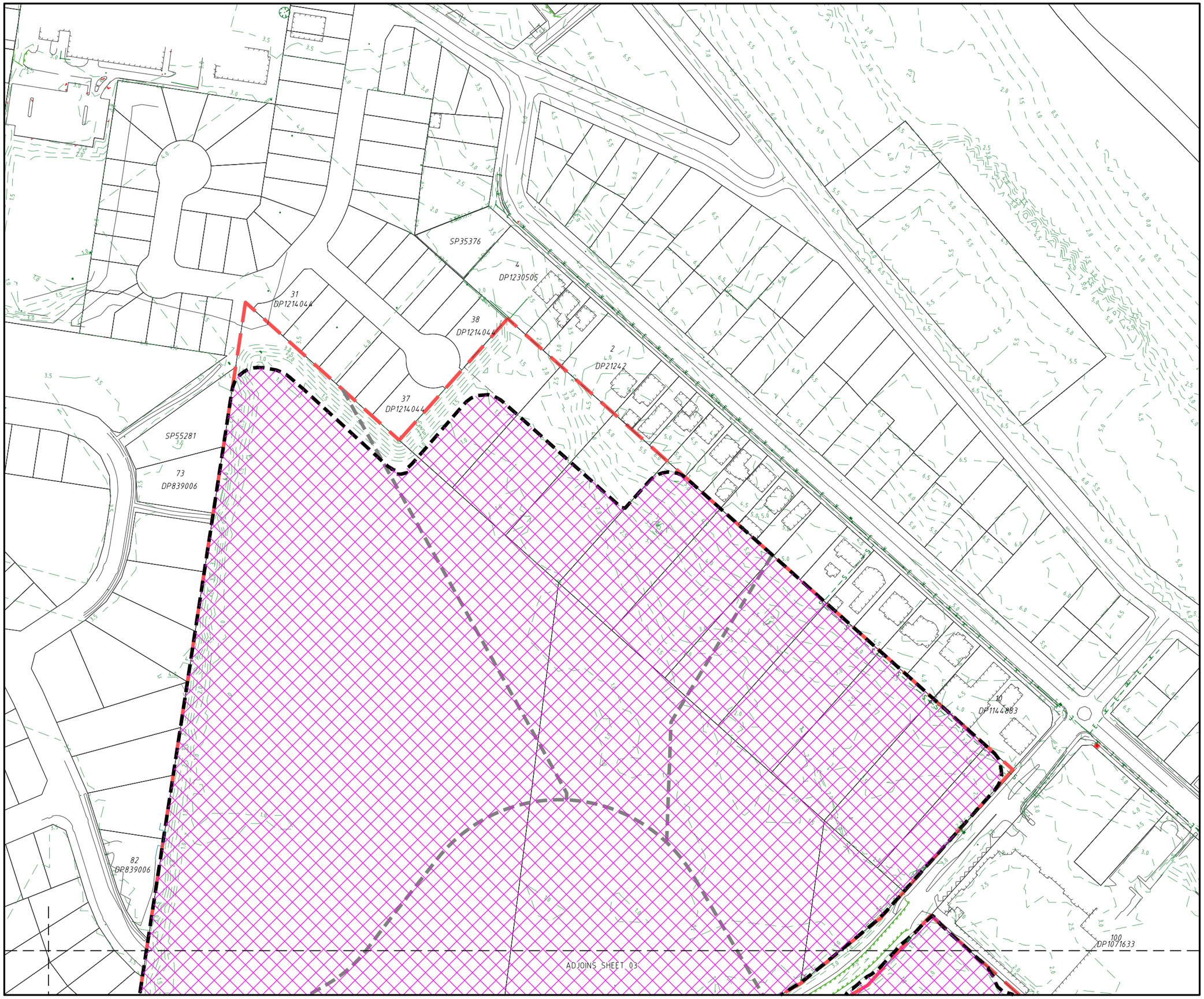

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

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DRAWING TITLE

TREE CLEARING AND PRESERVATION PLAN SHEET 04

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EARTHWORKS

1. TOPSOIL STRIPPING
   TOPSOIL SHALL BE STRIPPED ACROSS THE ENTIRE LIMIT OF THE EARTHWORKS CUT & FILL AREAS & SHALL BE STOCKPILED IN A LOCATION APPROVED BY THE SUPERINTENDENT. THE EXISTING STRATA IS TO BE TREATED IN ACCORDANCE WITH THE SPECIFICATION PRIOR TO PLACING ANY FILL.
2. EARTHWORKS LEVELS
   EARTHWORKS LEVELS SHOWN ON DRAWINGS ARE TO FINISHED SURFACE LEVELS & INCLUDE 100mm OF TOPSOIL.
3. COMPACTION STANDARD
   SITE FILLING & TRENCH BACKFILL SHALL BE COMPACTED TO THE STANDARDS OUTLINED IN THE LOCAL AUTHORITY'S SPECIFICATIONS. FILL BATTER FACES ARE TO BE OVERFILLED, COMPACTED & CUT BACK TO DESIGN LEVELS. ALL CUT BATTERS ARE TO BE CUT BACK & TRIMMED TO DESIGN LEVELS.
4. PAVEMENT DEPTHS
   THE DESIGN PAVEMENT DEPTHS ALLOWED IN EARTHWORKS CALCULATIONS ARE BASED ON THE DEPTHS SHOWN IN THE SCHEDULE OF PAVEMENT DEPTHS. THE PAVEMENT DEPTHS GIVEN ARE DESIGN DEPTHS ONLY & MAY BE VARIED AFTER SUB GRADE TESTS ARE TAKEN & AUTHORITY APPROVAL.
5. TESTING & CERTIFICATION
   ALL COMPACTION TESTING SHALL BE CARRIED OUT BY AN APPROVED N.A.T.A. TESTING AUTHORITY. ALL SITE FILLING SHALL BE TESTED AT LEVEL 1 REQUIREMENTS. THE CONTRACTOR IS TO PROVIDE ALL REQUIRED EARTHWORKS CERTIFICATIONS IN ACCORDANCE WITH THE APPROVAL CONDITIONS. THE CONTRACTOR IS TO PROVIDE A CONSTRUCTED EARTHWORKS SLOPE STABILITY CERTIFICATION CONFIRMING REQUIRED F.O.S. CERTIFIED BY A RPEQ.
6. TOPSOIL REPLACEMENT
   ALL FOOTPATHS, BATTERS & ALLOTMENT CUT & FILL AREAS SHALL BE TOPSOILED WITH TOPSOIL FROM ONSITE STOCKPILES, & AMELIORATE SOIL AS NECESSARY TO ENSURE GRASS STRIKE.
7. GRASSING
   ALL CUT/FILL AREAS, DISTURBED AREAS & TRENCHED AREAS SHALL BE GRASSED TO THE SATISFACTION OF THE SUPERINTENDENT & LOCAL AUTHORITY.
8. ROCK
   THE CONTRACTOR IS TO INCLUDE ROCK EXCAVATION AS PART OF THEIR EARTHWORKS RATE.
9. EARTHWORKS ZONE
   THE FOLLOWING ACTIVITIES ARE PROHIBITED OUTSIDE THE EARTHWORKS ZONE - STORAGE & MIXING OF MATERIALS, VEHICLE PARKING, LIQUID DISPOSAL, MACHINERY REPAIRS/REFUELING, PLACEMENT OF SITE OFFICES OR SHEDS, COMBUSTION OF ANY MATERIAL, STOCKPILING OF SOIL, RUBBLE OR DEBRIS, ANY FILLING OR EXCAVATION INCLUDING TRENCHES, TOPSOIL, SKIMMING AND/OR SURFACE EXCAVATION UNLESS OTHERWISE APPROVED BY THE RELEVANT AUTHORITY.
10. CONSTRUCTION - STOCKPILING
    TEMPORARY SILT FENCE TO BE ERECTED 5m FROM TOE OF BATTER ON LOW SIDE OF STOCKPILING. STOCKPILE SITE TO BE CLEAR OF ADJACENT PROPERTY BOUNDARIES SO AS NOT TO CAUSE A NUISANCE TO ADJOINING PROPERTIES. NO STOCKPILES ARE TO BE LOCATED WITHIN THE TREE PROTECTION ZONE, REFER VEGETATION MANAGEMENT PLAN FOR MORE DETAILS. THE CONTRACTOR SHALL NOT CREATE STOCKPILES OF SURPLUS MATERIALS UNLESS DIRECTED BY THE SUPERINTENDENT. ALL MATERIALS ARISING FROM THE WORKS SHALL BE COMPACTED TO FUTURE FILL AREAS AS NOMINATED OR REMOVED FROM THE SITE.
11. TOPSOIL SCREENING
    TOPSOIL SHALL BE SCREENED BY THE CONTRACTOR WHEN DIRECTED BY THE SUPERINTENDENT. ALL UNSUITABLE MATERIAL SCREENED FROM THE TOPSOIL WILL BE TAKEN TO AN OFFSITE TIP BY THE CONTRACTOR AT THE CONTRACTORS EXPENSE.
12. EARTHWORKS MATERIAL SIZE
    ALL EARTHWORKS MATERIAL IS TO BE BROKEN DOWN TO AN ACCEPTABLE SIZE TO BE COMPACTED UNDER LEVEL 1 FILL. WHERE THE RELEVANT GUIDELINES DON'T SPECIFY AN ACCEPTABLE SIZE, EARTHWORKS MATERIAL IS TO BE BROKEN DOWN TO A SIZE NO LARGER THAN 75mm.
13. MOISTURE CONTENT
    EARTHWORKS MOISTURE VARIATION TO NOT EXCEED ±2% OF THE OPTIMUM MOISTURE CONTENT.
14. SURFACE FINISH
    THE FINISHED SURFACE LEVEL IS TO BE CAPPED WITH FINER MATERIAL & SMOOTH DRUM ROLLED & GRADED TO PROMOTE SURFACE WATER RUNOFF IN A CONTROLLED MANNER.
15. EARTHWORKS LIMITS
    THE CONTRACTOR IS TO TIE IN TO THE NATURAL SURFACE AT THE LIMIT OF THE EARTHWORKS. THE TIE IN IS TO BE COMPLETED IN A MANNER TO ENSURE THERE IS NO PONDING OF SURFACE WATER.
16. IMPORTED MATERIAL
    LOTS - ALL IMPORTED MATERIAL FOR PLACEMENT ON LOTS TO BE A MINIMUM CBR 10 MATERIAL & HAVE A SWELL % <1.5.
    ROADS - ALL IMPORTED MATERIAL FOR PLACEMENT ON ROADS TO BE A MINIMUM CBR10 MATERIAL WITH A SWELL % <1.5, LIQUID LIMIT <70 & PLASTICITY INDEX <45.
    SOIL PARAMETERS TO BE REVIEWED BY THE SITE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT ON SITE.
17. REACTIVE SOILS
    a) ALL REACTIVE TOPSOIL TO BE IDENTIFIED BY THE GEOTECHNICAL ENGINEER & BE SEPARATED FROM THE NON REACTIVE TOPSOIL.
    b) ALL REACTIVE TOPSOIL TO BE RESPREAD IN THE OPEN SPACE AREA. WHERE REACTIVE TOPSOIL IS REQUIRED TO BE RESPREAD ON DEVELOPABLE AREAS THE CONTRACTOR SHALL LIME TREAT THE TOPSOIL TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
    c) WHEN UNDERTAKING THE EARTHWORKS CUT ALL MATERIALS SHOULD BE SELECTIVELY SORTED SO THAT THE REACTIVE SOILS ARE SEPARATED FROM THE LOW REACTIVE RESIDUAL SOILS & EXTREMELY WEATHERED BEDROCK
    d) ALL REACTIVE SOILS ARE TO BE PLACED IN THE LOWER SECTIONS OF FILL WITH THE LESS REACTIVE RESIDUAL SOILS & EXTREMELY WEATHERD BEDROCK TO BE PLACE IN THE UPPER FILLS. ALTERNATIVELY, THE REACTIVE SOILS CAN BE BLENDED WITH THE LESS REACTIVE SOILS & EXTREMELY WEATHERD ROCK TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
    e) NO REACTIVE CLAY SOILS SHOULD BE PLACED WITHIN THE UPPER 0.75m APPROX. FILL PROFILE WHERE POSSIBLE.
    f) WHEN PLACING FILL OVER HIGHLY REACTIVE SOILS, TREATMENT MAY BE REQUIRED IF THE FILLS ARE ONLY MINOR, 0.3m APPROX. & THE REACTIVE SOIL PROFILE IS GREATER THAN 0.7m APPROX. IN THESE AREAS SUBGRADE REPLACEMENT OF AT LEAST 0.75m OF NON REACTIVE / LOW REACTIVE MATERIAL OVERLYING THE REACTIVE SOILS SHALL BE UNDERTAKEN.
    g) ALL WORKS ASSOCIATED WITH THE IDENTIFICATION, PLACEMENT & TREATMENT OF REACTIVE SOILS SHALL BE UNDERTAKEN TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.

EARTHWORKS VOLUMES

CUT	5,046m³
FILL	473,302m³
BALANCE	468,255m³

EARTHWORKS FILL VOLUMES
(PER STAGE)

STAGE 1	63,586m³
STAGE 2	145,296m³
STAGE 3	41,256m³
STAGE 4	135,657m³
STAGE 5	40,055m³
STAGE 6	39,293m³
STAGE 7	3,112m³
TOTAL	468,255m³

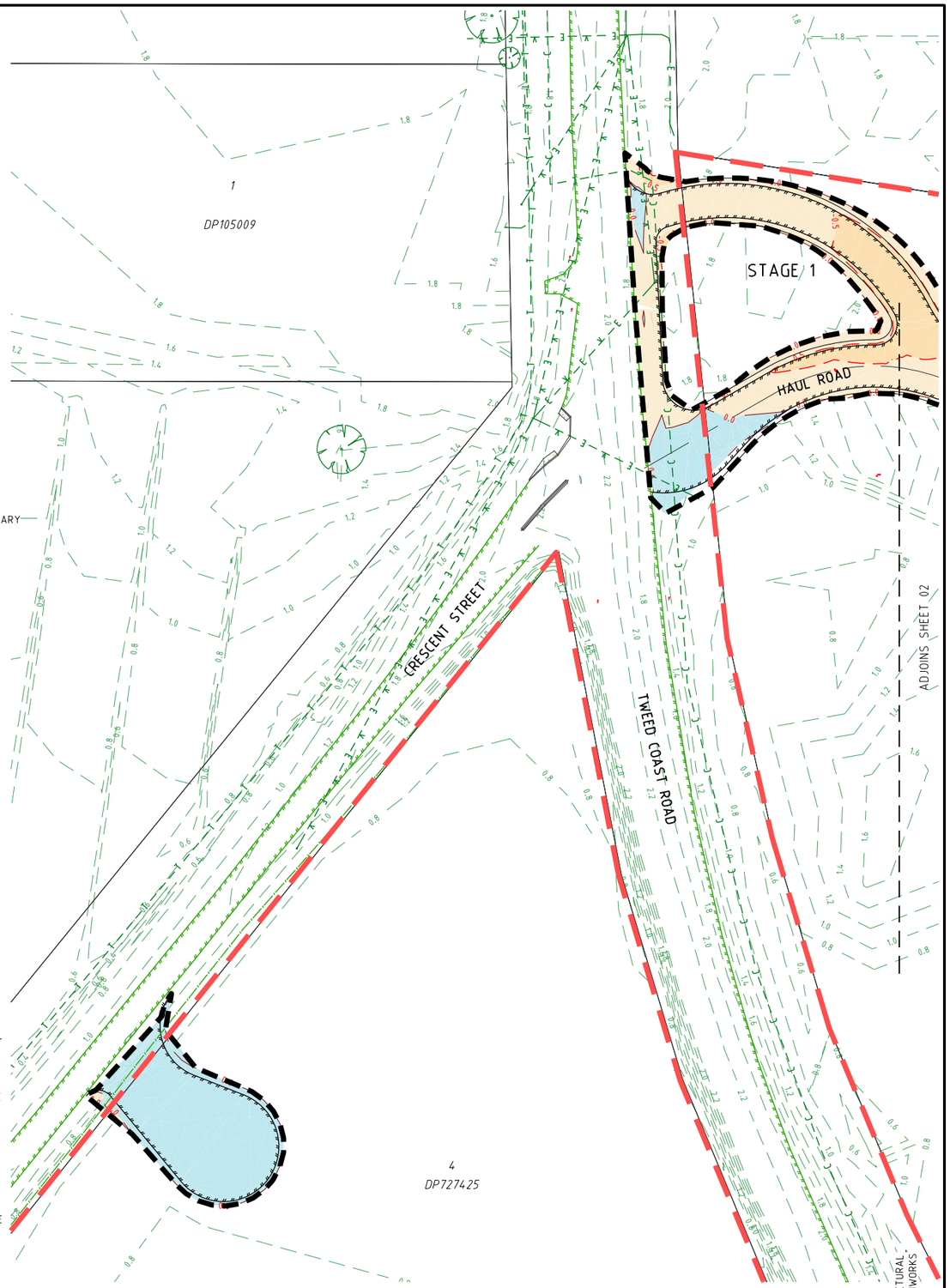
LEGEND

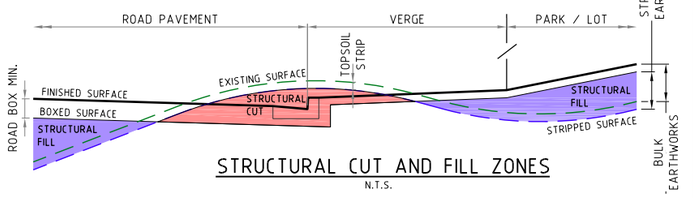
- EXISTING PROPERTY LINE
- EXISTING KERB (INVERT)
- EXISTING EDGE OF BITUMEN
- FUTURE KERB (INVERT)
- FUTURE PROPERTY LINE
- SITE BOUNDARY
- STAGE BOUNDARY
- LIMIT OF EARTHWORKS BOUNDARY
- PROPOSED PROPERTY LINE
- PROPOSED KERB (INVERT)
- PROPOSED EDGE OF BITUMEN
- -0.5 CUT CONTOUR
- 0.0 INTERFACE CONTOUR
- 0.5 FILL CONTOUR

CUT #	FILL #
4.5m +	0.0 - 0.5m
4.0 - 4.5m	0.5 - 1.0m
3.5 - 4.0m	1.0 - 1.5m
3.0 - 3.5m	1.5 - 2.0m
2.5 - 3.0m	2.0 - 2.5m
2.0 - 2.5m	2.5 - 3.0m
1.5 - 2.0m	3.0 - 3.5m
1.0 - 1.5m	3.5 - 4.0m
0.5 - 1.0m	4.0 - 4.5m
0.0 - 0.5m	4.5m +

BULK EARTHWORKS (EXISTING TO FINISHED SURFACE)

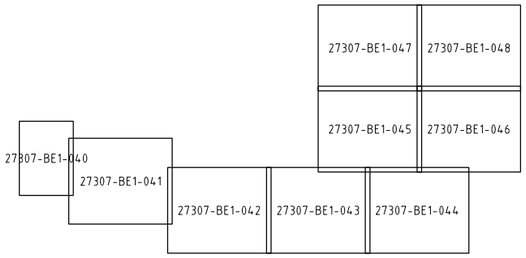
NOTES:
1. EARTHWORKS VOLUMES ARE APPROXIMATE ONLY, CONTRACTOR TO VERIFY & ALLOW FOR ANY DISCREPANCY IN THE CONTRACT VALUE.
2. VOLUMES INDICATE THE STRUCTURAL QUANTITY OF EARTHWORKS, ie. BETWEEN THE EXISTING SURFACE & THE UNDERSIDE OF THE MINIMUM BOX & OF THE FSL, AS PROSCRIBED IN THE CONTRACT DOCUMENTATION.
3. NO ALLOWANCE FOR COMPACTION OR BULKING FACTOR IS INCLUDED IN THE EARTHWORKS VOLUMES. THE CONTRACTOR IS TO MAKE ALLOWANCES FOR BULKING/COMPACTION AS PART OF THEIR CONTRACT WORKS.
4. THE CONTRACTOR IS TO VERIFY EXISTING SURFACE & TOPSOIL DISTRIBUTION PRIOR TO SIGNING THE CONTRACT. THE CONTRACTORS PRICE FOR THESE WORKS IS DEEMED TO BE ACCEPTING OF THE NATURAL SURFACE & TOPSOIL DISTRIBUTION.
5. THE CONTRACTOR IS REQUIRED TO EXPORT / IMPORT AS NEEDED TO ACHIEVE THE FINAL SURFACE LEVELS. THE EXPORT/IMPORT AS REQUIRED TO COMPLETE EARTHWORKS FORMS PART OF THE CONTRACT WORKS.
6. WHERE NO SPOIL AREA IS AVAILABLE WITHIN THE PROJECT FOOTPRINT, THE CIVIL CONTRACTOR SHALL EXPORT EXCESS MATERIALS TO A LICENCED TIP OFF SITE. THESE WORKS FORM PART OF THE CONTRACT WORKS.





STRUCTURAL CUT AND FILL ZONES
N.T.S.

SHEET LAYOUT



NOTE:
CONTRACTOR TO MAKE ALL NECESSARY ALLOWANCES FOR EXISTING SERVICES DURING ALL WORKS.

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LOCAL AUTHORITY-TWEED SHIRE COUNCIL

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DRAWING TITLE
EARTHWORKS CUT TO FILL PLAN SHEET 01

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DESIGNED	RB	DRAWN	EP
APPROVED	NER 906726	DATE	25-06-20

DRAWING NUMBER 27307-BE1-040
AMEND. A

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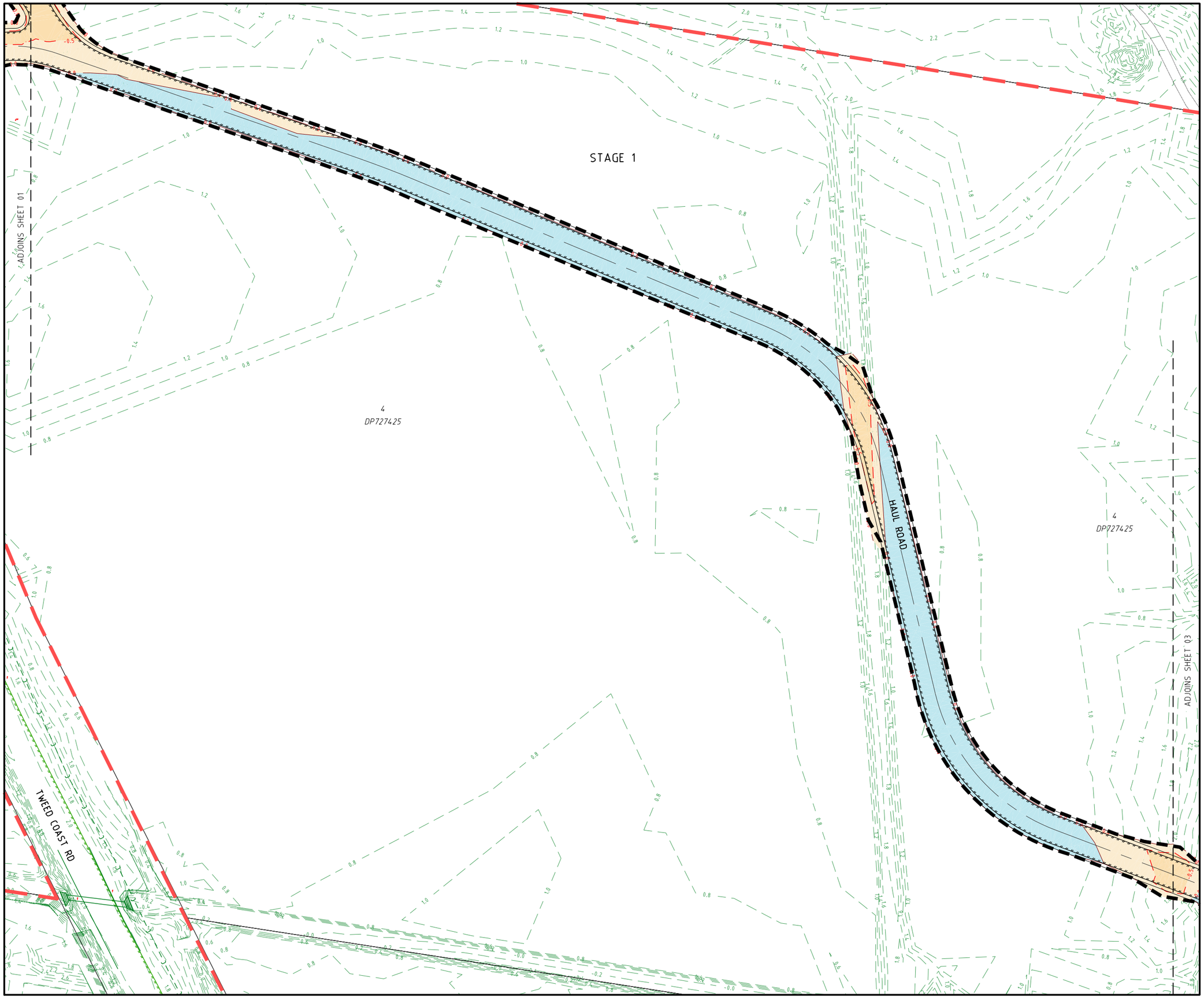

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS
HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE	
TENDER		
COUNCIL	09-10-20	
CONSTRUCTION	..	

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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DRAWING TITLE

EARTHWORKS
CUT TO FILL
PLAN
SHEET 02

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DESIGNED RB	DRAWN EP	
APPROVED	NER 906726	DATE 25-06-20

DRAWING NUMBER	AMEND.
27307-BE1-041	A

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PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS
HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE	
TENDER		
COUNCIL	09-10-20	
CONSTRUCTION	..	

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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EARTHWORKS
CUT TO FILL
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DESIGNED RB	DRAWN EP	
APPROVED	NER 906726	DATE 25-06-20

DRAWING NUMBER	AMEND.
27307-BE1-042	A

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PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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EARTHWORKS
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APPROVED	NER 906726	DATE	25-06-20

DRAWING NUMBER	AMEND.
27307-BE1-043	A

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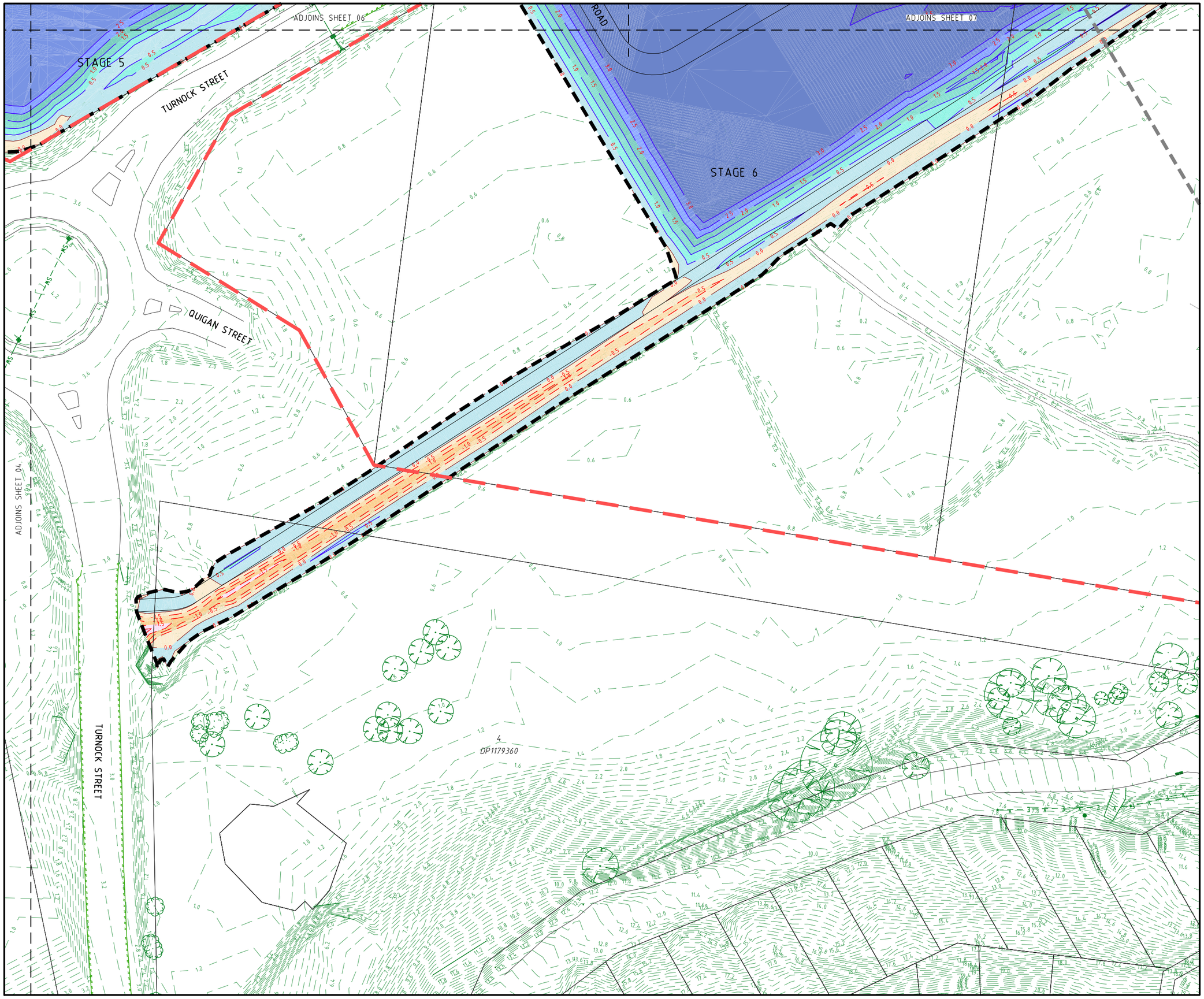

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298 TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE	
TENDER		
COUNCIL	09-10-20	
CONSTRUCTION	..	

PRE	DATE	AMENDMENT
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EARTHWORKS
CUT TO FILL
PLAN
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APPROVED	NER 906726	DATE	25-06-20

DRAWING NUMBER	AMEND.
27307-BE1-044	A

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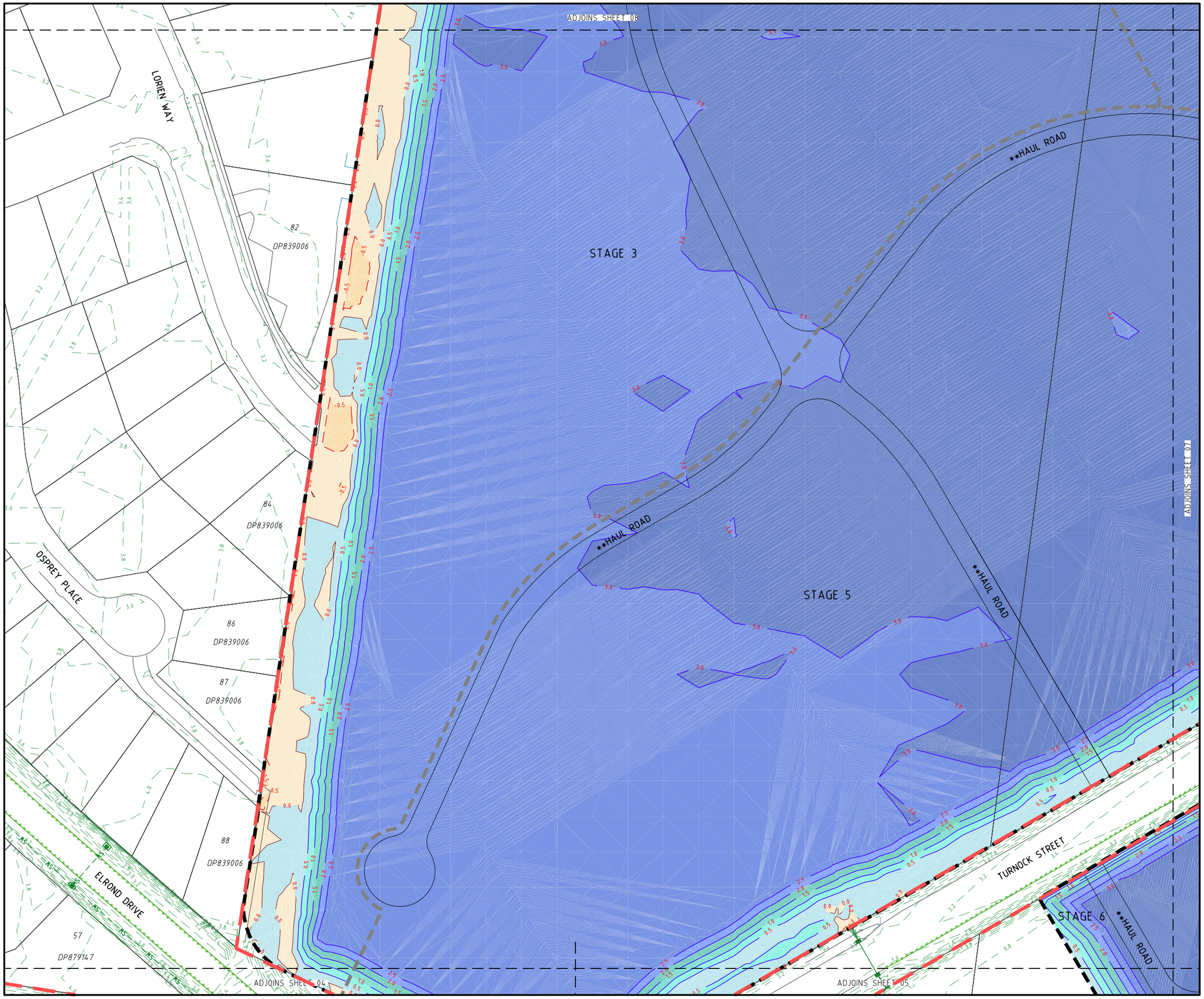

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE	
TENDER		
COUNCIL	09-10-20	
CONSTRUCTION	..	

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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DRAWING NUMBER	AMEND.
27307-BE1-045	A

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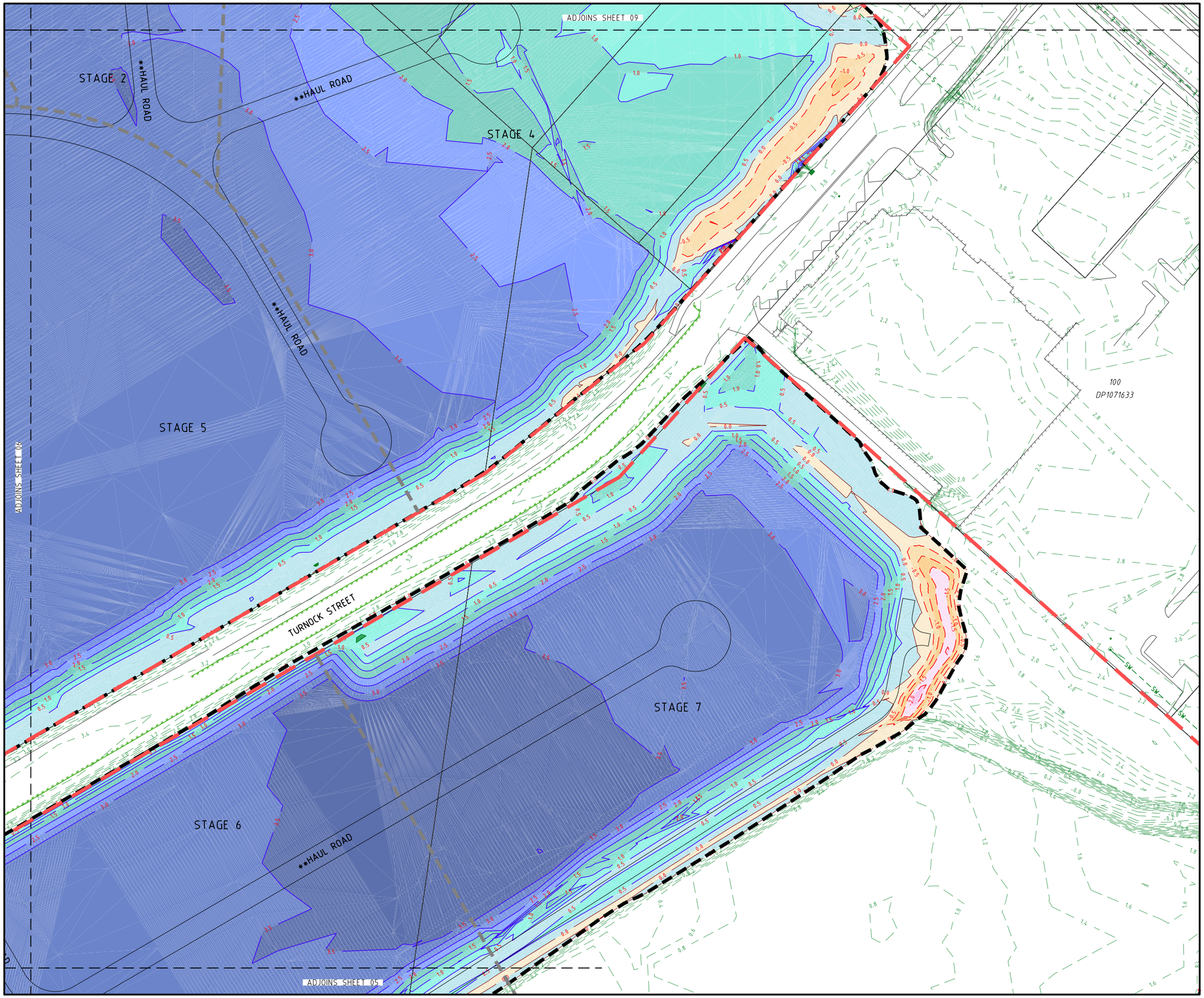

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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APPROVED	NER 906726	DATE	25-06-20

DRAWING NUMBER	AMEND.
27307-BE1-046	A

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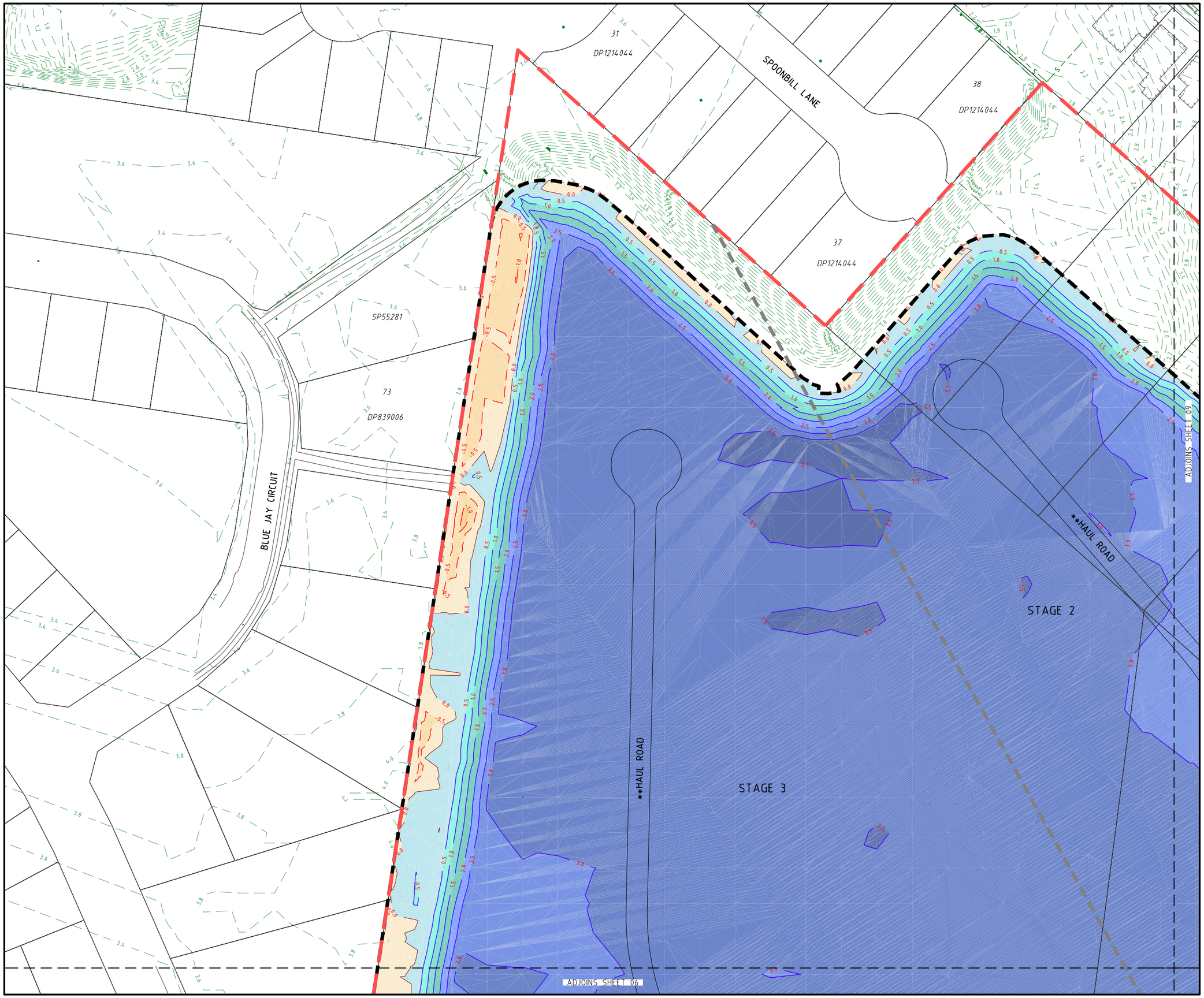

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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DRAWING NUMBER	AMEND.
27307-BE1-047	A

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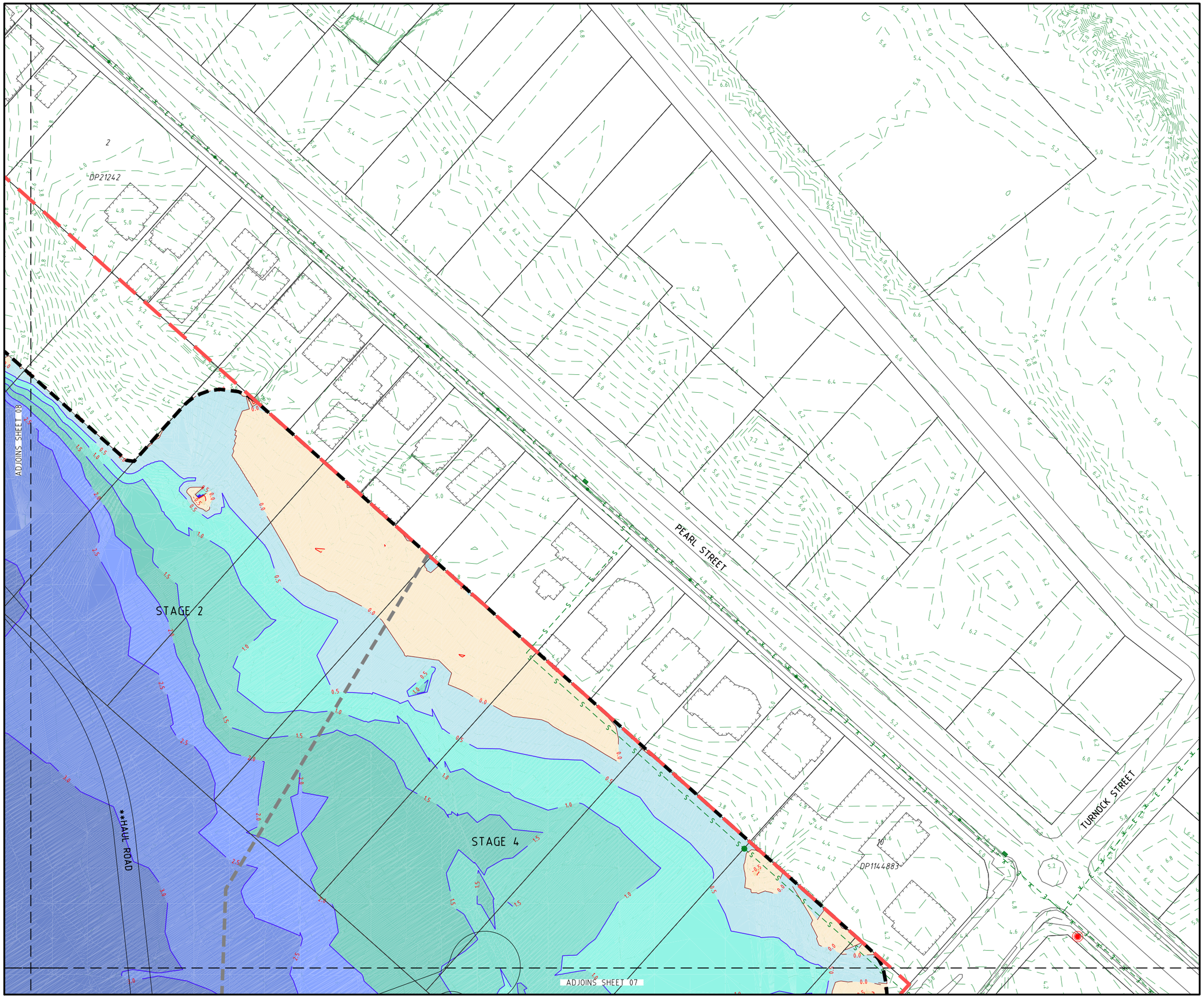

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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APPROVED	NER 906726	DATE 25-06-20

DRAWING NUMBER	AMEND.
27307-BE1-048	A

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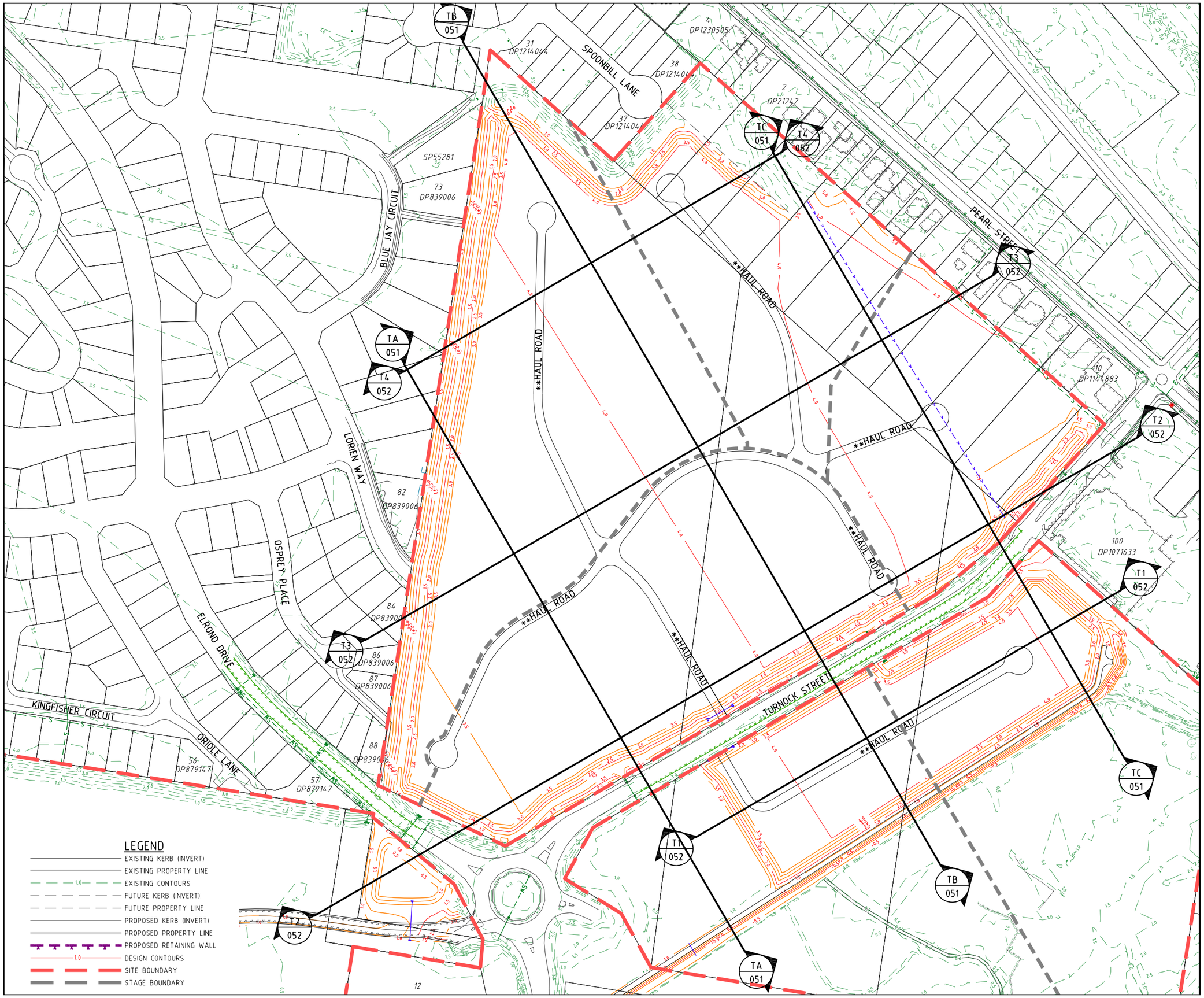

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

0 12.5 25 37.5 50 62.5m
Scale 1:1250 - A1 (1:2500 - A3)

ISSUES	DATE	
TENDER		
COUNCIL	09-10-20	
CONSTRUCTION	..	

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A	09-10-20	COUNCIL ISSUE

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SECTION KEY PLAN

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APPROVED		NER 906726	DATE 25-06-20

DRAWING NUMBER	AMEND.
27307-BE1-050	A

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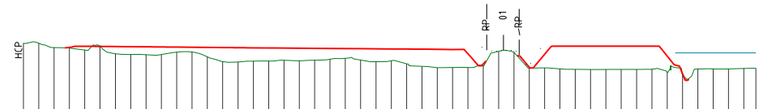

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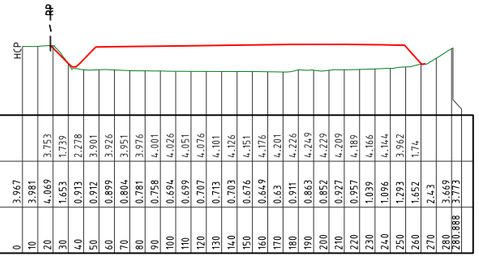

CHAINAGE	EXISTING SURFACE	FINISHED SURFACE
0	3.967	
10	3.981	
20	4.069	3.753
30	1.653	1.739
40	0.913	2.278
50	0.912	3.901
60	0.899	3.926
70	0.884	3.951
80	0.781	3.976
90	0.758	4.001
100	0.694	4.026
110	0.699	4.051
120	0.707	4.076
130	0.713	4.101
140	0.703	4.126
150	0.676	4.151
160	0.649	4.176
170	0.63	4.201
180	0.911	4.226
190	0.863	4.249
200	0.852	4.229
210	0.927	4.209
220	0.957	4.189
230	1.039	4.166
240	1.096	4.144
250	1.293	3.962
260	1.652	1.74
270	2.63	
280	3.669	
280.888	3.973	

SECTION T4 / 050

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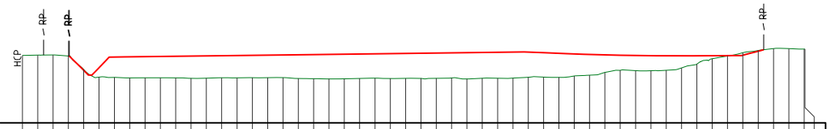
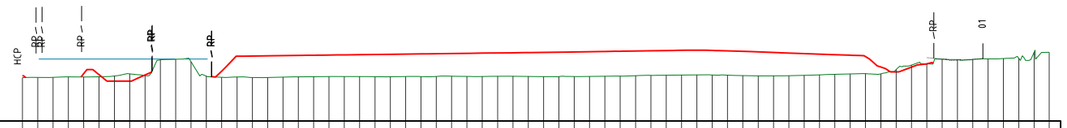
VERT 1:400 - A1 (1:800 - A3)



CHAINAGE	EXISTING SURFACE	FINISHED SURFACE
0	3.786	
10	3.835	
20	3.867	
30	3.717	
40	1.957	1.857
50	0.974	2.206
60	0.932	3.582
70	0.842	3.607
80	0.876	3.632
90	0.885	3.657
100	0.866	3.682
110	0.808	3.707
120	0.833	3.732
130	0.886	3.757
140	0.872	3.782
150	0.895	3.807
160	0.897	3.832
170	0.906	3.857
180	0.792	3.882
190	0.766	3.907
200	0.743	3.932
210	0.736	3.957
220	0.795	3.982
230	0.825	4.007
240	0.79	4.032
250	0.796	4.057
260	0.809	4.082
270	0.815	4.107
280	0.861	4.132
290	0.73	4.157
300	0.818	4.182
310	0.816	4.207
320	0.837	4.232
330	0.947	4.229
340	0.964	4.152
350	0.926	4.075
360	1.115	3.998
370	1.227	3.92
380	1.577	3.856
390	1.86	3.831
400	1.811	3.805
410	1.799	3.779
420	1.858	3.754
430	2.173	3.738
440	2.669	3.749
450	3.36	3.76
460	3.719	3.769
470	4.149	3.823
480	4.439	4.35
490	4.49	
500	4.682	
510	4.624	
510.487	4.624	

SECTION T3 / 050

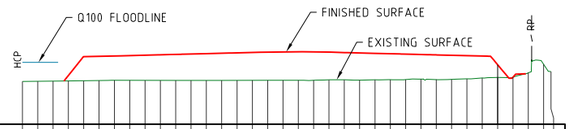
SCALE: HORIZ 1:2000 - A1 (1:4000 - A3)
VERT 1:400 - A1 (1:800 - A3)



CHAINAGE	EXISTING SURFACE	FINISHED SURFACE
0	0.656	0.911
10	0.681	
20	0.696	
30	0.748	
40	0.735	1.185
50	0.763	1.039
60	0.864	0.2
70	1.142	0.2
80	0.937	0.991
90	2.972	
100	3.054	
110	2.725	
120	0.851	
130	0.699	1.508
140	0.739	3.448
150	0.673	3.473
160	0.669	3.498
170	0.72	3.523
180	0.762	3.548
190	0.771	3.573
200	0.799	3.598
210	0.799	3.623
220	0.8	3.648
230	0.782	3.673
240	0.771	3.698
250	0.796	3.723
260	0.797	3.748
270	0.81	3.773
280	0.842	3.798
290	0.807	3.823
300	0.802	3.848
310	0.823	3.873
320	0.834	3.898
330	0.832	3.923
340	0.776	3.948
350	0.797	3.973
360	0.799	3.998
370	0.81	4.03
380	0.837	4.064
390	0.859	4.097
400	0.92	4.13
410	0.931	4.156
420	0.977	4.183
430	0.993	4.216
440	1.009	4.248
450	0.995	4.199
460	0.984	4.144
470	0.931	4.084
480	0.882	4.016
490	0.891	3.93
500	0.916	3.858
510	0.952	3.786
520	1.02	3.715
530	1.083	3.644
540	1.134	3.577
550	1.175	3.359
560	1.14	2.033
570	1.703	1.4
580	2.286	2.023
590	2.448	2.454
600	3.051	
610	3.006	
620	3.03	
630	3.106	
640	3.143	
650	3.167	
660	3.952	
669.818	3.962	

SECTION T2 / 050

SCALE HORIZ 1:2000 - A1 (1:4000 - A3)
VERT 1:400 - A1 (1:800 - A3)



CHAINAGE	EXISTING SURFACE	FINISHED SURFACE
0	0.581	
10	0.598	
20	0.616	
30	0.64	1.35
40	0.668	3.803
50	0.696	3.853
60	0.726	3.903
70	0.721	3.953
80	0.716	4.003
90	0.712	4.053
100	0.707	4.103
110	0.707	4.152
120	0.709	4.202
130	0.712	4.252
140	0.719	4.302
150	0.725	4.345
160	0.732	4.387
170	0.725	4.432
180	0.724	4.45
190	0.721	4.439
200	0.784	4.389
210	0.79	4.339
220	0.743	4.289
230	0.789	4.239
240	0.804	4.189
250	0.818	4.139
260	0.88	4.089
270	0.822	4.039
280	0.848	3.989
290	0.911	3.939
300	1.028	3.889
310	1.094	2.764
320	1.133	1.116
330	1.707	
340	2.818	
344.833	1.869	

SECTION T1 / 050

SCALE HORIZ 1:2000 - A1 (1:4000 - A3)
VERT 1:400 - A1 (1:800 - A3)

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

0 20 40 60 80 100m
Horiz Scale 1:2000 - A1 (1:4000 - A3)

0 4 8 12 16 20m
Vert Scale 1:400 - A1 (1:800 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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ASSOCIATED CONSULTANTS

DRAWING TITLE

BULK EARTHWORKS
SECTIONS
SHEET 02

MORTONS urbansolutions
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DESIGNED	RB	DRAWN	EP
APPROVED	NER 906726	DATE	25-06-20

DRAWING NUMBER: 27307-BE1-052
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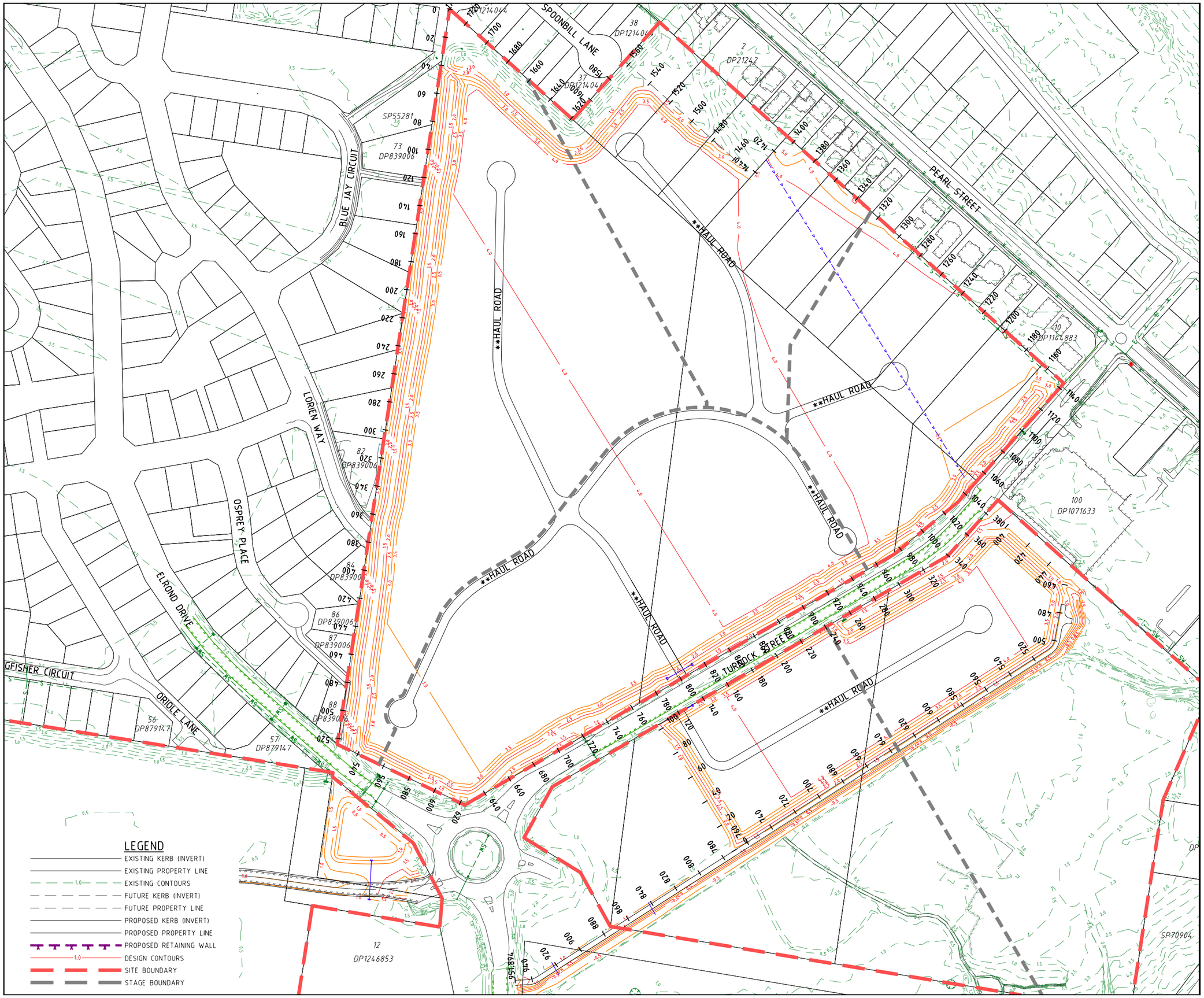

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

0 12.5 25 37.5 50 62.5m
Scale 1:1250 - A1 (1:2500 - A3)

ISSUES	DATE	
TENDER		
COUNCIL	09-10-20	
CONSTRUCTION	..	

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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DRAWING TITLE

BULK EARTHWORKS
PERIMETER
SECTION KEY PLAN

MORTONS urbansolutions
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Civil Engineering
Project Coordination
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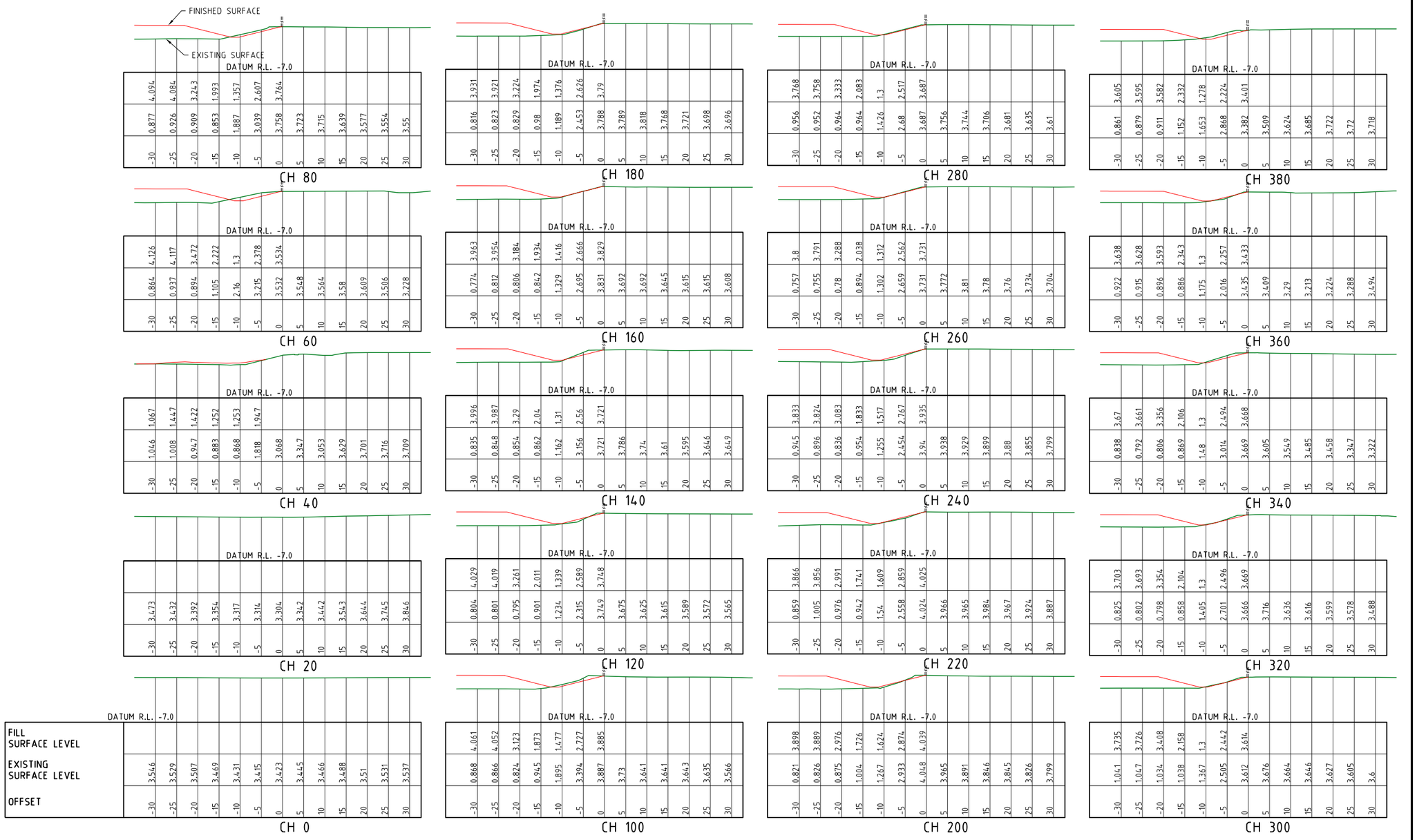
DESIGNED	RB	DRAWN	EP
APPROVED	NER 906726	DATE	25-06-20

DRAWING NUMBER	AMEND.
27307-BE1-060	A

Y:\273 - Gales\07 - Turnock St Fill CC\Overall\Engineering Drawings\BE1\Current\27307-BE1-060.dwg, 9/10/2020 11:27:50 AM, 1:2



TURNOCK ST NORTH PERIMETER

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

0 5 10 15 20 25m
Vert. Scale 1:500 - A1 (1:1000 - A3)

0 5 10 15 20 25m
Horiz. Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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DRAWING TITLE

BULK EARTHWORKS
SECTIONS
TURNOCK ST NORTH
PERIMETER
SHEET 01

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DRAWING NUMBER	AMEND.
27307-BE1-061	A

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TURNOCK ST NORTH PERIMETER (Cont.)

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

0 5 10 15 20 25m
Vert. Scale 1:500 - A1 (1:1000 - A3)

0 5 10 15 20 25m
Horiz. Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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DRAWING TITLE

BULK EARTHWORKS SECTIONS TURNOCK ST NORTH PERIMETER (Cont.) SHEET 02

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Project Coordination

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APPROVED	NER 906726	DATE	25-06-20

DRAWING NUMBER	AMEND.
27307-BE1-062	A

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TURNOCK ST NORTH PERIMETER (Cont.)

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

0 5 10 15 20 25m
Vert. Scale 1:500 - A1 (1:1000 - A3)

0 5 10 15 20 25m
Horiz. Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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BULK EARTHWORKS SECTIONS
TURNOCK ST NORTH PERIMETER (Cont.)
SHEET 03

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DESIGNED	RB	DRAWN	EP
APPROVED	NER 906726	DATE	25-06-20

DRAWING NUMBER	AMEND.
27307-BE1-063	A

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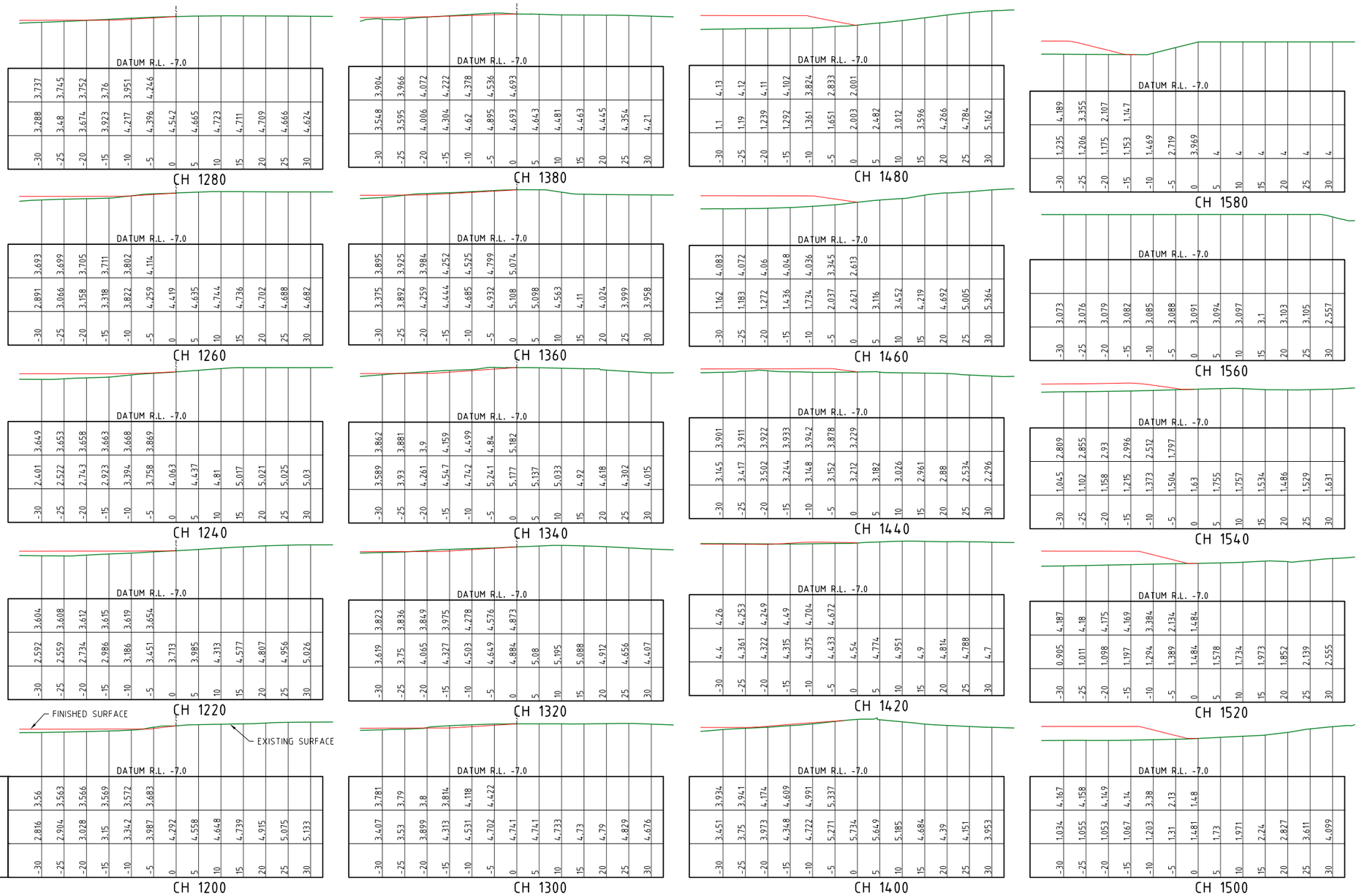

TURNOCK ST NORTH PERIMETER (Cont.)

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

0 5 10 15 20 25m
Vert. Scale 1:500 - A1 (1:1000 - A3)

0 5 10 15 20 25m
Horiz. Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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DRAWING TITLE

BULK EARTHWORKS SECTIONS TURNOCK ST NORTH PERIMETER (Cont.) SHEET 04

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DESIGNED RB | DRAWN EP
APPROVED | NER 906726 | DATE 25-06-20

DRAWING NUMBER 27307-BE1-064 | AMEND. A

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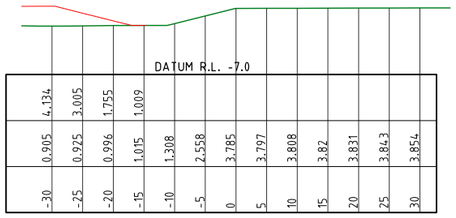
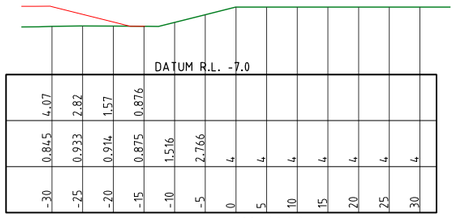


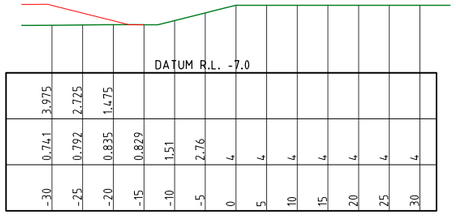
4.134	3.005	1.755	1.009										
0.905	0.925	0.996	1.015	1.308	2.558	3.785	3.797	3.808	3.82	3.831	3.843	3.854	
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	

CH 1680



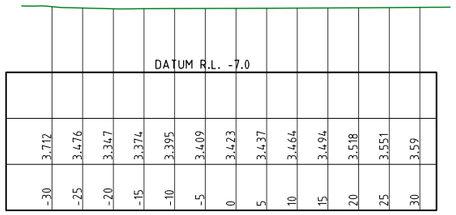
4.07	2.82	1.57	0.876										
0.845	0.933	0.914	0.875	1.516	2.766	4	4	4	4	4	4	4	
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	

CH 1660



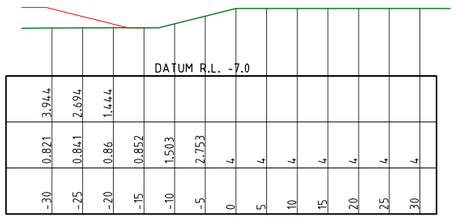
3.975	2.725	1.475											
0.741	0.792	0.835	0.829	1.51	2.76	4	4	4	4	4	4	4	
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	

CH 1640



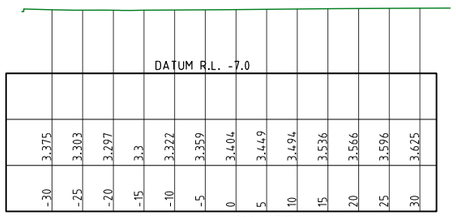
3.712	3.476	3.347	3.374	3.395	3.409	3.423	3.437	3.464	3.494	3.518	3.551	3.59	
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	

CH 1735.305



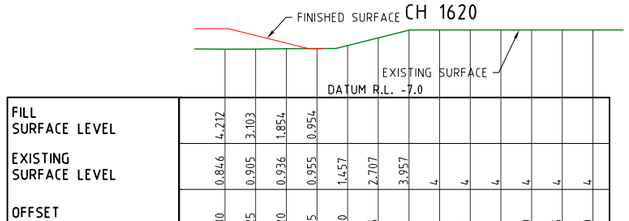
3.944	2.694	1.444											
0.821	0.841	0.86	0.852	1.503	2.753	4	4	4	4	4	4	4	
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	

CH 1620



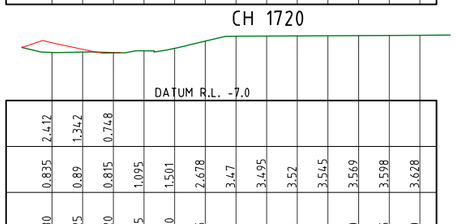
3.375	3.303	3.297	3.3	3.322	3.359	3.404	3.449	3.494	3.536	3.566	3.596	3.625	
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	

CH 1720



FILL SURFACE LEVEL	EXISTING SURFACE LEVEL	OFFSET
4.212	0.846	-30
3.103	0.905	-25
1.854	0.936	-20
0.954	0.955	-15
	1.457	-10
	2.707	-5
	3.957	0
	4	5
	4	10
	4	15
	4	20
	4	25
	4	30

CH 1600



2.412	1.342	0.748											
0.835	0.89	0.815	1.095	1.501	2.678	3.47	3.495	3.52	3.545	3.569	3.598	3.628	
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	

CH 1700

TURNOCK ST NORTH PERIMETER (Cont.)

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

0 5 10 15 20 25m
Vert. Scale 1:500 - A1 (1:1000 - A3)

0 5 10 15 20 25m
Horiz. Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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ASSOCIATED CONSULTANTS

DRAWING TITLE

BULK EARTHWORKS
SECTIONS
TURNOCK ST NORTH
PERIMETER (Cont.)
SHEET 05

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination
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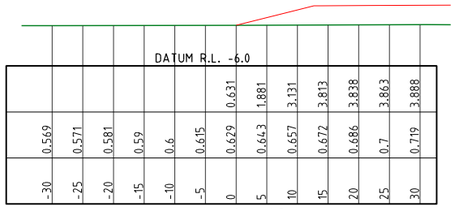
DESIGNED	RB	DRAWN	EP
APPROVED	NER 906726	DATE	25-06-20

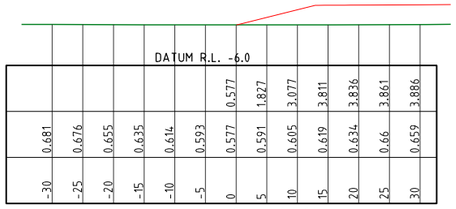
DRAWING NUMBER	AMEND.
27307-BE1-065	A

Y:\273 - Gales\07 - Turnock St Fill CC\Overall\Engineering Drawings\BE1\Current\27307-BE1-065.dwg, 9/10/2020 11:27:25 AM, 1:2



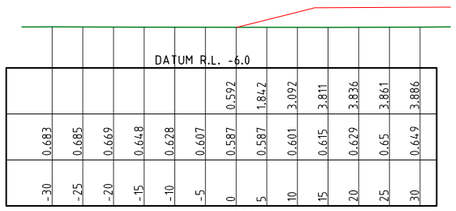
						0.631	1.881	3.131	3.813	3.838	3.863	3.888
0.569	0.571	0.581	0.59	0.6	0.615	0.629	0.643	0.657	0.672	0.686	0.7	0.719
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 60



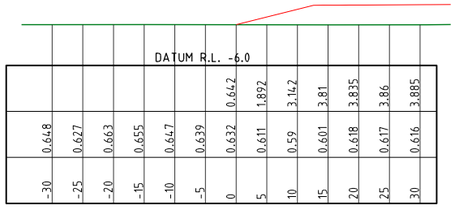
						0.577	1.827	3.077	3.811	3.836	3.861	3.886
0.681	0.676	0.655	0.635	0.614	0.593	0.577	0.591	0.605	0.619	0.634	0.66	0.659
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 41.514



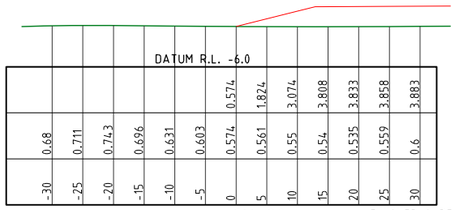
						0.592	1.842	3.092	3.811	3.836	3.861	3.886
0.683	0.685	0.669	0.648	0.628	0.607	0.587	0.587	0.601	0.615	0.629	0.65	0.649
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 40



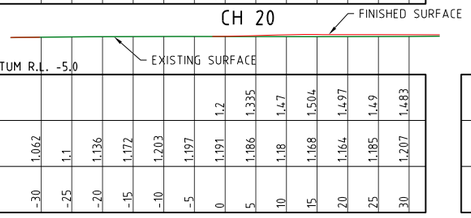
						0.642	1.892	3.142	3.81	3.835	3.86	3.885
0.648	0.627	0.663	0.655	0.647	0.639	0.632	0.611	0.59	0.601	0.618	0.617	0.616
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 35.069



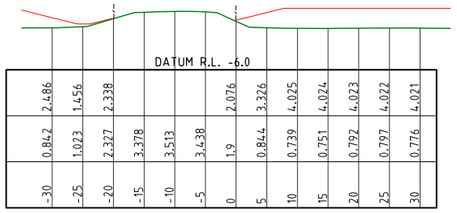
						0.574	1.824	3.074	3.808	3.833	3.858	3.883
0.68	0.711	0.743	0.696	0.631	0.603	0.574	0.561	0.55	0.54	0.535	0.559	0.6
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 20



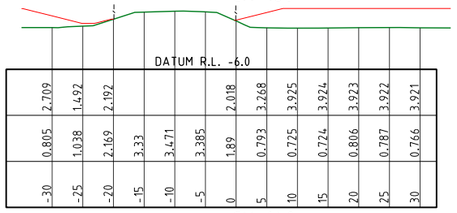
FILL SURFACE LEVEL						1.2	1.335	1.47	1.504	1.497	1.49	1.483
EXISTING SURFACE LEVEL	1.062	1.1	1.136	1.172	1.203	1.197	1.191	1.186	1.18	1.168	1.164	1.185	1.207
OFFSET	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 0



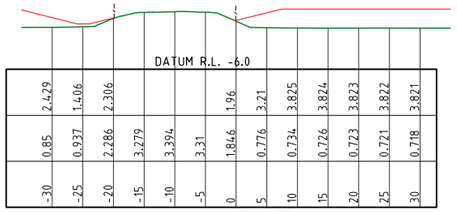
						2.076	3.326	4.025	4.024	4.023	4.022	4.021
2.486	1.456	2.338										
0.842	1.023	2.327	3.378	3.513	3.438	1.9	0.844	0.739	0.751	0.792	0.797	0.776
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 160



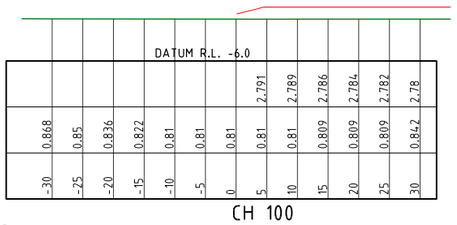
						2.018	3.268	3.925	3.924	3.923	3.922	3.921
2.709	1.492	2.192										
0.805	1.038	2.169	3.33	3.471	3.385	1.89	0.793	0.725	0.724	0.806	0.787	0.766
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 140



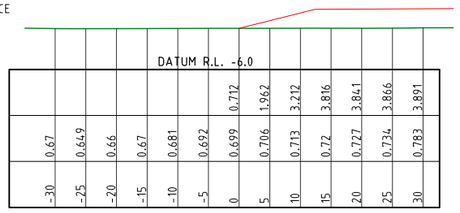
						1.96	3.21	3.825	3.824	3.823	3.822	3.821
2.429	1.406	2.306										
0.85	0.937	2.286	3.279	3.394	3.31	1.846	0.776	0.734	0.726	0.723	0.721	0.718
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 120



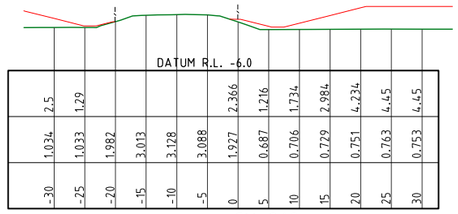
							2.791	2.789	2.786	2.784	2.782	2.78
0.868	0.85	0.836	0.822	0.81	0.81	0.81	0.81	0.81	0.809	0.809	0.809	0.842
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 100



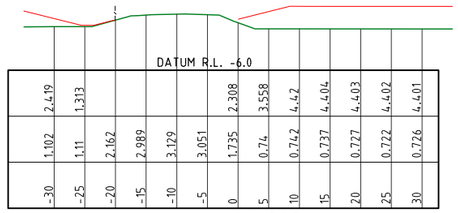
						0.712	1.962	3.212	3.816	3.841	3.866	3.891
0.67	0.649	0.66	0.67	0.681	0.692	0.699	0.706	0.713	0.72	0.727	0.734	0.783
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 80



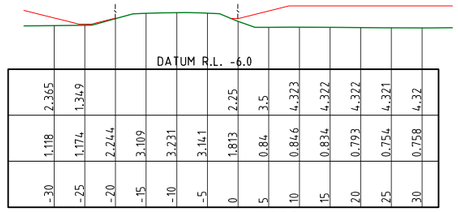
						2.366	1.216	1.734	2.984	4.234	4.45	4.45
2.5	1.29											
1.034	1.033	1.982	3.013	3.128	3.088	1.927	0.687	0.706	0.729	0.751	0.763	0.753
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 260



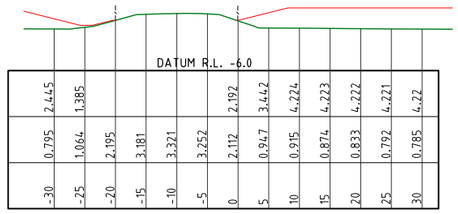
						2.308	3.558	4.42	4.404	4.403	4.402	4.401
2.419	1.313											
1.102	1.11	2.162	2.989	3.129	3.051	1.735	0.74	0.742	0.737	0.727	0.722	0.726
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 240



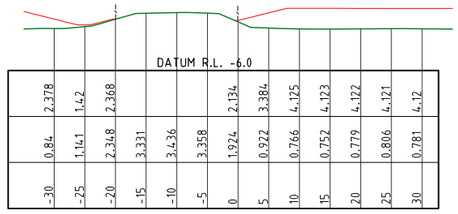
						2.25	3.5	4.323	4.322	4.322	4.321	4.32
2.365	1.349											
1.118	1.174	2.244	3.109	3.231	3.14	1.813	0.84	0.846	0.834	0.793	0.754	0.758
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 220



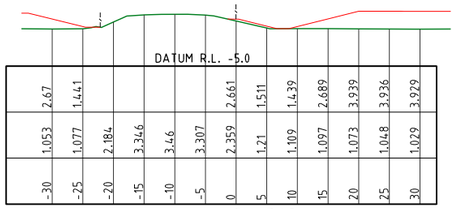
						2.192	3.442	4.224	4.223	4.222	4.221	4.22
2.445	1.385											
0.795	1.064	2.195	3.181	3.321	3.252	2.112	0.947	0.915	0.874	0.833	0.792	0.785
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 200



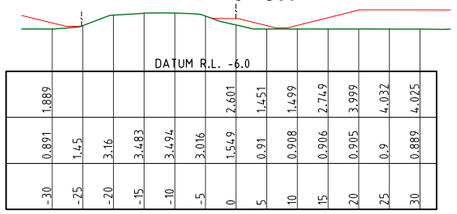
						2.134	3.384	4.125	4.123	4.122	4.121	4.12
2.378	1.42											
0.84	1.141	2.368	3.331	3.436	3.358	1.924	0.922	0.766	0.752	0.779	0.806	0.781
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 180



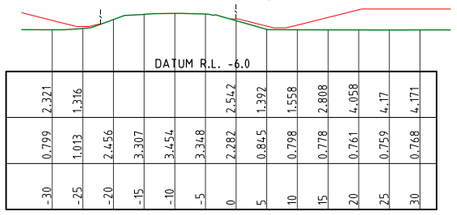
						2.661	1.511	1.439	2.689	3.939	3.936	3.929
2.67	1.441											
1.053	1.077	2.184	3.346	3.46	3.307	2.359	1.21	1.109	1.097	1.073	1.048	1.029
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 360



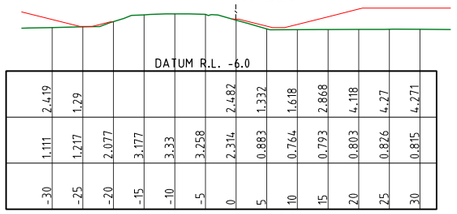
						2.601	1.451	1.499	2.719	3.999	4.032	4.025
1.889												
0.891	1.45	3.16	3.483	3.494	3.016	1.549	0.91	0.908	0.906	0.905	0.9	0.889
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 340



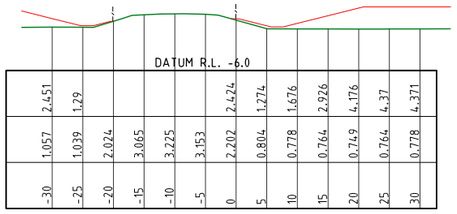
						2.542	1.392	1.558	2.808	4.058	4.17	4.171
2.321	1.316											
0.799	1.013	2.456	3.307	3.454	3.348	2.282	0.845	0.798	0.778	0.761	0.759	0.768
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 320



						2.482	1.332	1.618	2.868	4.118	4.27	4.271
2.419	1.29											
1.111	1.217	2.077	3.177	3.33	3.258	2.314	0.883	0.764	0.793	0.803	0.826	0.815
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 300



						2.474	1.274	1.676	2.926	4.176	4.37	4.371
2.451	1.29											
1.057	1.039	2.024	3.065	3.225	3.153	2.202	0.804	0.778	0.764	0.749	0.764	0.778
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 280

TURNOCK ST SOUTH PERIMETER

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

0 5 10 15 20 25m
Vert. Scale 1:500 - A1 (1:1000 - A3)

0 5 10 15 20 25m
Horiz. Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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ASSOCIATED CONSULTANTS

DRAWING TITLE

BULK EARTHWORKS SECTIONS
TURNOCK ST SOUTH PERIMETER
SHEET 01

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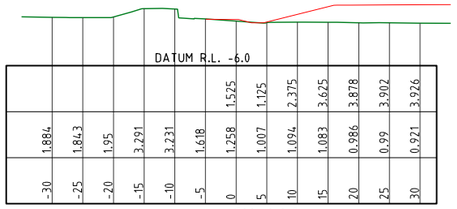
Suite 9, 19 Short St
Southport QLD 4215

DESIGNED	RB	DRAWN	EP
APPROVED	NER 906726	DATE	25-06-20

DRAWING NUMBER	AMEND.
27307-BE1-066	A

Y:\273 - Gales\07 - Turnock St Fill CC\Overall\Engineering Drawings\BE1\Current\27307-BE1-060.dwg, 9/10/2020 11:27:28 AM, 1:2



1.884	1.843	1.95	3.291	3.231	1.618	1.258	1.007	1.094	1.083	0.986	0.99	0.921
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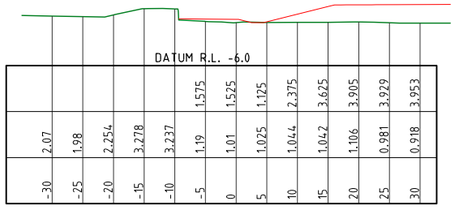
CH 440



2.07	1.98	2.254	3.278	3.237	1.19	1.01	1.025	1.044	1.042	1.106	0.981	0.918
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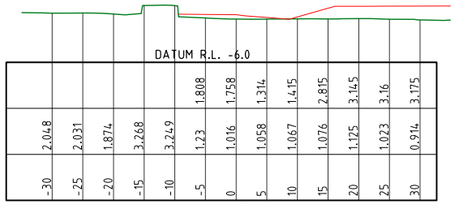
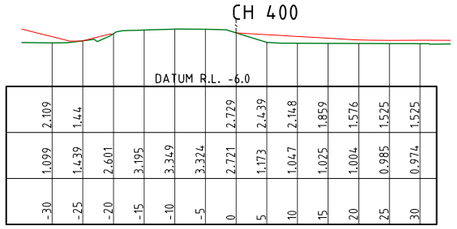
CH 420



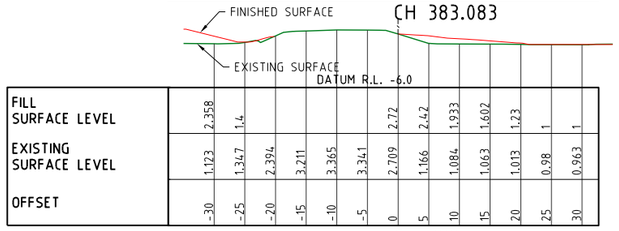
2.048	2.031	1.874	3.268	3.249	1.23	1.016	1.058	1.067	1.076	1.125	1.023	0.914
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 400



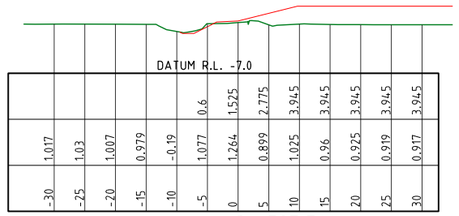
2.109	1.44					2.729	2.439	2.148	1.859	1.576	1.525	1.525
1.099	1.439	2.601	3.195	3.349	3.324	2.721	1.173	1.047	1.025	1.004	0.985	0.974
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 383.083



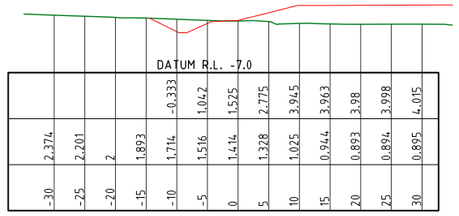
FILL SURFACE LEVEL	2.358	1.4				2.72	2.42	1.933	1.602	1.23	1	1
EXISTING SURFACE LEVEL	1.123	1.347	2.394	3.211	3.365	3.341	2.709	1.166	1.084	1.063	1.013	0.98	0.963
OFFSET	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 380



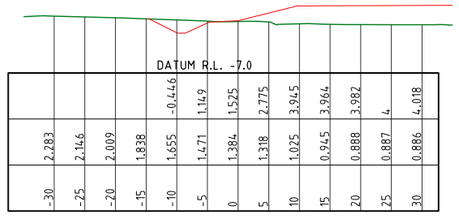
					0.6	1.525	2.775	3.945	3.945	3.945	3.945	3.945
1.017	1.03	1.007	0.979	-0.19	1.077	1.264	0.899	1.025	0.96	0.925	0.919	0.917
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 507.764



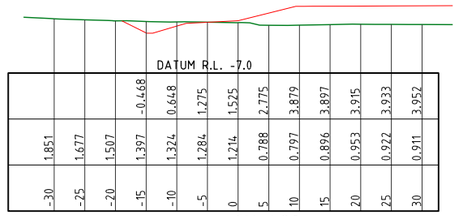
				-0.333	1.042	1.525	2.775	3.945	3.963	3.98	3.998	4.015
2.374	2.201	2	1.893	1.714	1.516	1.414	1.328	1.025	0.944	0.893	0.894	0.895
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 500



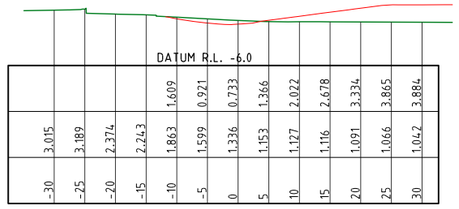
				-0.446	1.149	1.525	2.775	3.945	3.964	3.982	4	4.018
2.283	2.146	2.009	1.838	1.655	1.471	1.384	1.318	1.025	0.945	0.888	0.887	0.886
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 499.557



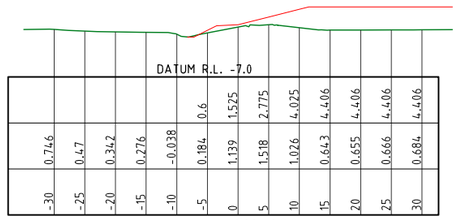
			-0.468	0.648	1.275	1.525	2.775	3.879	3.897	3.915	3.933	3.952
1.851	1.677	1.507	1.397	1.324	1.284	1.214	0.788	0.797	0.896	0.953	0.922	0.911
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 480



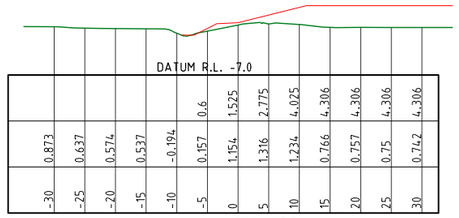
				1.609	0.921	0.733	1.366	2.022	2.678	3.334	3.865	3.884
3.015	3.189	2.374	2.243	1.863	1.599	1.336	1.153	1.127	1.116	1.091	1.066	1.042
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 460



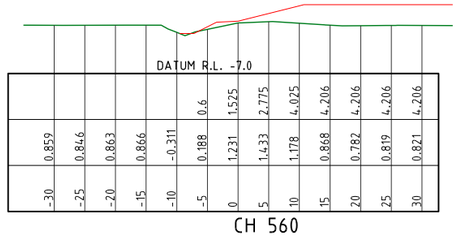
					0.6	1.525	2.775	4.025	4.406	4.406	4.406	4.406
0.746	0.47	0.342	0.276	-0.038	0.184	1.139	1.518	1.026	0.643	0.655	0.666	0.684
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 600



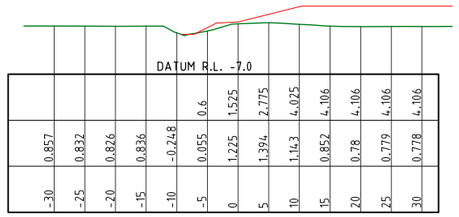
					0.6	1.525	2.775	4.025	4.306	4.306	4.306	4.306
0.873	0.637	0.574	0.537	-0.194	0.157	1.154	1.316	1.234	0.766	0.757	0.75	0.742
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 580



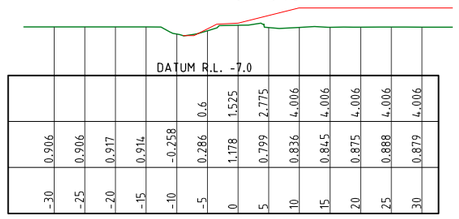
					0.6	1.525	2.775	4.025	4.206	4.206	4.206	4.206
0.859	0.846	0.863	0.866	-0.311	0.188	1.231	1.433	1.178	0.868	0.782	0.819	0.821
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 560



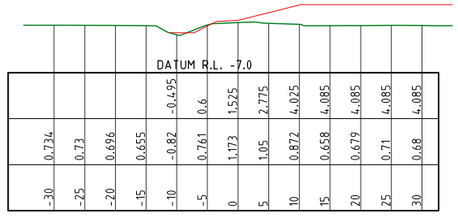
					0.6	1.525	2.775	4.025	4.106	4.106	4.106	4.106
0.857	0.832	0.826	0.836	-0.248	0.055	1.225	1.394	1.143	0.852	0.78	0.779	0.778
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 540



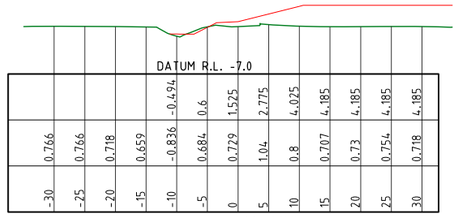
					0.6	1.525	2.775	4.006	4.006	4.006	4.006	4.006
0.906	0.906	0.917	0.914	-0.258	0.286	1.178	0.799	0.836	0.845	0.875	0.888	0.879
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 520



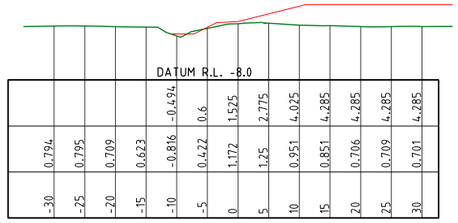
				-0.495	0.6	1.525	2.775	4.025	4.085	4.085	4.085	4.085
0.734	0.73	0.696	0.655	-0.82	0.761	1.173	1.05	0.872	0.658	0.679	0.71	0.68
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 700



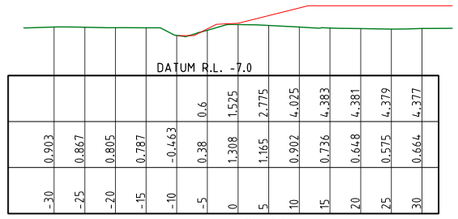
				-0.494	0.6	1.525	2.775	4.025	4.185	4.185	4.185	4.185
0.766	0.766	0.718	0.659	-0.836	0.684	0.729	1.04	0.8	0.707	0.73	0.754	0.718
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 680



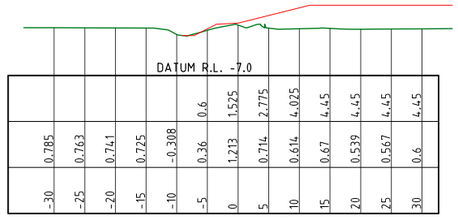
				-0.494	0.6	1.525	2.775	4.025	4.285	4.285	4.285	4.285
0.794	0.795	0.709	0.623	-0.816	0.422	1.172	1.25	0.951	0.851	0.706	0.709	0.701
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 660



					0.6	1.525	2.775	4.025	4.383	4.381	4.379	4.377
0.903	0.867	0.805	0.787	-0.463	0.38	1.308	1.165	0.902	0.736	0.648	0.575	0.664
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 640



					0.6	1.525	2.775	4.025	4.445	4.445	4.445	4.445
0.785	0.763	0.741	0.725	-0.308	0.36	1.213	0.714	0.614	0.67	0.539	0.567	0.6
-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30

CH 620

TURNOCK ST SOUTH PERIMETER (Cont.)

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

0 5 10 15 20 25m
Vert. Scale 1:500 - A1 (1:1000 - A3)

0 5 10 15 20 25m
Horiz. Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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ASSOCIATED CONSULTANTS

DRAWING TITLE

BULK EARTHWORKS SECTIONS
TURNOCK ST SOUTH PERIMETER (Cont.)
SHEET 02

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

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DESIGNED	RB	DRAWN	EP
APPROVED	NER 906726	DATE	25-06-20

DRAWING NUMBER	AMEND.
27307-BE1-067	A

Y:\273 - Gales\07 - Turnock St Fill CC\Overall\Engineering Drawings\BE1\Current\27307-BE1-067.dwg, 9/10/2020 11:27:32 AM, 1:2

TURNOCK ST SOUTH PERIMETER (Cont.)

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

0 5 10 15 20 25m
Vert. Scale 1:500 - A1 (1:1000 - A3)

0 5 10 15 20 25m
Horiz. Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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ASSOCIATED CONSULTANTS

DRAWING TITLE

BULK EARTHWORKS SECTIONS TURNOCK ST SOUTH PERIMETER (Cont.) SHEET 03

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Project Coordination
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DESIGNED RB	DRAWN EP	
APPROVED	NER 906726	DATE 25-06-20

DRAWING NUMBER 27307-BE1-068 | AMEND. A

Y:\2273 - Gales\07 - Turnock St Fill CC\Overall\Engineering Drawings\BE1\Current\27307-BE1-068.dwg, 9/10/2020 11:27:36 AM, 1:2

SEDIMENT AND EROSION

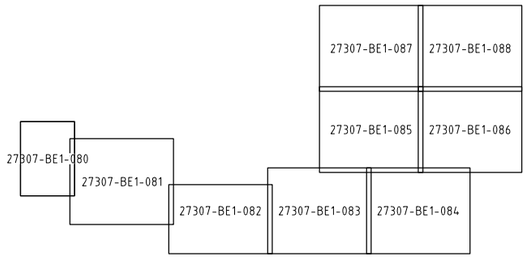
1. THE OBJECTIVE OF THE EROSION AND SEDIMENT CONTROL PLAN IS TO ENSURE THAT ALL REASONABLE AND PRACTICABLE MEASURES ARE IMPLEMENTED TO MINIMISE SHORT AND LONG-TERM EROSION AND ADVERSE EFFECTS OF SEDIMENT TRANSPORT.
2. NOTWITHSTANDING THE DETAILED EROSION AND SEDIMENT CONTROL DEVICES SHOWN ON THESE DRAWINGS, THE CONTRACTOR MUST PREPARE A SITE SPECIFIC EROSION AND SEDIMENT CONTROL PLAN PREPARED IN ACCORDANCE WITH TWEED SHIRE COUNCIL'S SPECIFICATIONS AND IECA'S BEST PRACTICE EROSION & SEDIMENT CONTROL (BPESC) DOCUMENT.
3. THE CONTRACTOR'S EROSION AND SEDIMENT CONTROL PLAN MUST INCLUDE WATER QUALITY MONITORING REQUIREMENTS IN ACCORDANCE WITH THE APPROVED STORMWATER MANAGEMENT PLAN (SMP). THE PLAN MUST OUTLINE THE PROPOSED PROCEDURES FOR THE TESTING, FLOCKING AND TRIGGERS FOR PUMP OUT OF ALL SEDIMENT BASINS IN ACCORDANCE WITH THE APPROVED SMP.
4. PRIOR TO THE COMMENCEMENT OF WORKS ONSITE THE CONTRACTOR MUST MAKE THEMSELVES AWARE OF ALL PREVIOUS GEOTECHNICAL REPORTS AND DETERMINE THE DISPERSIVE CHARACTERISTICS OF THE SOIL (INCLUDING PERFORMING ANY SOIL TESTS IF REQUIRED). THE RESULTS OF THIS REVIEW AND ANY TESTS MUST BE INCLUDED IN THE CONTRACTOR'S EROSION AND SEDIMENT CONTROL PLAN. A COPY OF ALL TEST RESULTS MUST BE PROVIDED TO THE SUPERINTENDENT.
5. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO CONTROL EROSION AND DOWNSTREAM SEDIMENTATION DURING ALL STAGES OF CONSTRUCTION (INCLUDING THE MAINTENANCE PERIOD). NOTWITHSTANDING THE CONTROL MEASURES OR FINISHED EARTHWORKS DESIGN SHOWN ON THESE DRAWINGS, THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING ADDITIONAL OR ALTERNATIVE EROSION & SEDIMENT CONTROL MEASURES TO MINIMISE SEDIMENT ACROSS OR LEAVING THE SITE.
6. AT ALL TIMES THE CONTRACTOR SHALL MONITOR THE PREVAILING WEATHER CONDITIONS (INCLUDING WEEKENDS AND PUBLIC HOLIDAYS) AND AT ALL TIMES REMAINS RESPONSIBLE TO:
   a) CLEAN AND REPAIR CONTROL DEVICES WHENEVER THE ACCUMULATED SEDIMENT REDUCES THEIR CAPACITY BY 50%.
   b) MAINTAIN POSITIVE GRADES OF ALL PERIMETER BANKS AND SWALES TO AN OUTLET.
   c) PROTECT ANY DOWNSTREAM CONSTRUCTION.
   d) CONTROLLING DUST.
   e) MEASURES HAVE BEEN INSTALLED IN ACCORDANCE WITH DETAILS OUTLINED IN THEIR EROSION AND SEDIMENT CONTROL PLAN AND AS DIRECTED BY THE SUPERINTENDENT.
7. THE CONTRACTOR'S PLAN SHALL ALLOW FOR SUITABLE ACCESS TO ALLOW MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES. NO ADDITIONAL VEGETATION CLEARING IS PERMITTED FOR GAINING ACCESS UNLESS APPROVED BY THE SUPERINTENDENT.
8. THE CONTRACTOR MAY REQUEST APPROVAL FROM THE SUPERINTENDENT TO REUSE THE STOCKPILED MULCH FOR STABILISING BATTERS ONLY IN LOCATIONS WHERE THE APPROVED LANDSCAPE OPW DESIGN REQUIRES MULCH ULTIMATELY.
9. CONSTRUCTION STOCKPILING
   a) TOPSOIL SHALL BE STRIPPED AND STOCKPILED IN LOCATIONS NOMINATED ON THE CONSTRUCTION DRAWINGS OR IN LOCATIONS AGREED WITH THE SUPERINTENDENT.
   b) ADDITIONAL VEGETATION CLEARING IS NOT PERMITTED TO FACILITATE THE STOCKPILING OF MATERIALS UNLESS SHOWN ON THE APPROVED VEGETATION MANAGEMENT PLAN.
   c) ANY STOCKPILE SITE MUST BE CLEAR OF ADJACENT PROPERTY BOUNDARIES SO AS NOT TO CAUSE A NUISANCE TO ADJOINING PROPERTIES.
   d) NO STOCKPILES ARE TO BE LOCATED WITHIN THE TREE PROTECTION ZONE OF VEGETATION.
   e) A TEMPORARY SILT FENCE IS TO BE ERECTED APPROXIMATELY 5m FROM TOE OF BATTER ON LOW SIDE OF STOCKPILING.
10. NOTWITHSTANDING THE DETAILS SHOWN IN THE CONTRACTOR'S EROSION AND SEDIMENT CONTROL PLAN, DURING CONSTRUCTION THE CONTRACTOR MUST:
    a) SIZE ALL TEMPORARY SEDIMENT BASINS APPROPRIATELY TO TREAT THE UPSTREAM CATCHMENT. NOTE THAT THE PERMANENT BIO BASINS SHOWN ON THESE DRAWINGS ARE SIZED FOR THE ULTIMATE CATCHMENT NOT FOR THE CONSTRUCTION PHASE.
    b) PLACE A ROCK BUND AROUND ALL HEADWALLS DURING CONSTRUCTION.
    c) PROVIDE KERB INLET PROTECTION TO ALL GULLIES.
    c) PLACE A MINIMUM 1.0m WIDE TURF STRIP BEHIND ALL KERBS AND IN A HERRINGBONE LAYOUT WITHIN THE ROAD VERGE.
    d) MAINTENANCE (INCLUDING FLOCCULATION IF REQUIRED AND PUMP OUT) OF ALL CONSTRUCTION SEDIMENT BASINS (WHETHER EXISTING OR NEW).
    e) CLEAN OUT OF ALL GROSS POLLUTANT TRAPS, SEDIMENT FOREBAYS AND ALL OTHER PERMANENT SEDIMENT CONTROL DEVICES AT BOTH ON AND OFF MAINTENANCE.
    f) ALL PIPEWORK AND EXCAVATION RATES ARE TO INCLUDE DE-WATERING AND EXCAVATION THROUGH INDURATED SAND (COFFEE ROCK).
11. CONTRACTOR TO CONFIRM THE EXTENTS OF REQUIRED GRASSING TREATMENTS WITH THE SUPERINTENDENT ATLEAST 7 DAYS PRIOR TO FINAL TRIMMING.
12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT GRASSING STRIKE RATES ARE ACHIEVED AT THE ON AND OFF MAINTENANCE INSPECTIONS IN ACCORDANCE WITH COUNCIL REQUIREMENTS. THIS INCLUDES THE SUPPLY AND INSTALLATION OF ANY REQUIRED CHEMICAL/FERTILIZER AMELIORATION TO ACHIEVE THE SPECIFIED GRASS STRIKE RATES.
13. GEOFABRIC LINING OF CHANNELS AND CHECK DAMS MAY BE REQUIRED SUBJECT TO THE SITE CONDITIONS.
14. BATTERS WITHIN PUBLIC OPEN SPACE TO BE VEGETATED IN ACCORDANCE WITH APPROVED OPEN SPACE MANAGEMENT PLAN AND LANDSCAPING OPW. CONTRACT DOCUMENTATION WILL SPECIFY WHETHER THIS IS THE CIVIL CONTRACTOR OR THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY TO SUPPLY AND INSTALL. THE CIVIL CONTRACTOR IS RESPONSIBLE FOR PROVIDING SUITABLE ACCESS FOR THE LANDSCAPE CONTRACTOR TO PERFORM THEIR WORKS.
15. MAINTENANCE PERIOD (PRE TO POST CONSTRUCTION)
    a) ALL PROTECTION MEASURES ARE TO BE INSPECTED AND MAINTAINED REGULARLY
    b) REPAIRS ARE TO BE EFFECTED IMMEDIATELY.
    c) SILT AFTER RAIN IS TO BE CLEANED FROM STREETS AND ALLOTMENTS IMMEDIATELY AND CORRECTIVE ACTION TAKEN TO AVOID A RE-OCCURRENCE.
    d) AT OFF-MAINTENANCE AND ONLY WHEN DIRECTED BY COUNCIL, REMOVE AND DISPOSE OFFSITE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES.

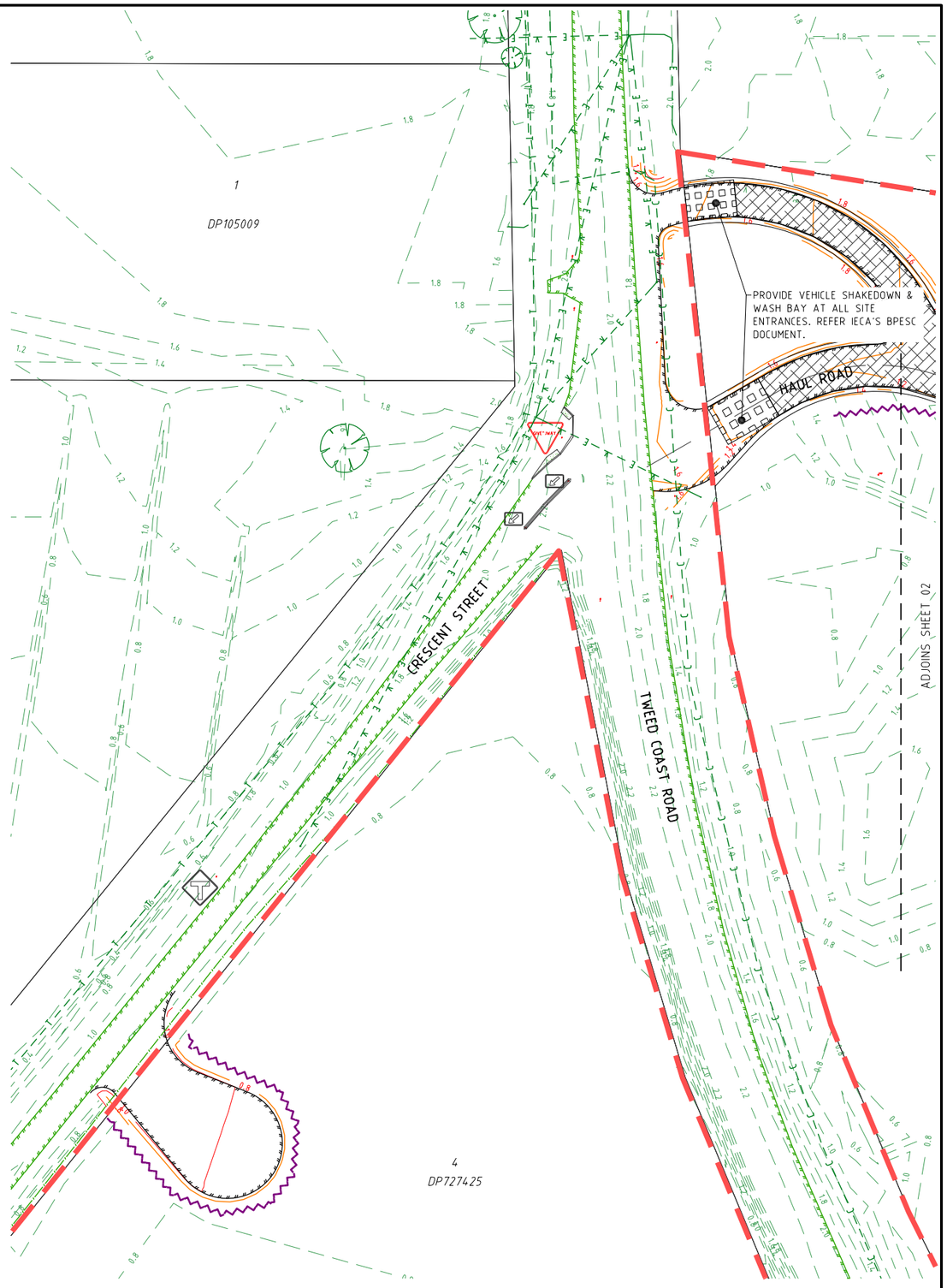
LEGEND

- EXISTING PROPERTY LINE
- EXISTING KERB (INVERT)
- EXISTING EDGE OF BITUMEN
- SW — EXISTING STORMWATER
- 1.0 — EXISTING CONTOURS
- FUTURE PROPERTY LINE
- FUTURE KERB (INVERT)
- SW — FUTURE STORMWATER
- 1.0 — FUTURE CONTOURS
- SITE BOUNDARY
- STAGE BOUNDARY
- PROPOSED PROPERTY LINE
- PROPOSED KERB (INVERT)
- PROPOSED EDGE OF BITUMEN
- SW — PROPOSED STORMWATER
- 1.0 — DESIGN CONTOURS
- MANHOLE
- KERB INLET (ON GRADE) PIT
- KERB INLET (SAG) PIT
- HEADWALL
- SEDIMENT FENCE
- SCOUR PROTECTION
- TEMPORARY SEDIMENT BASIN
- STORMWATER INLET FILTER
- ROCK CHECK DAM
- VEHICLE SHAKEDOWN AND WASH BAY (AT ALL SITE ENTRANCES MIN.)
- SEALED SURFACE
- TREES

PROVIDE SEDIMENT & EROSION CONTROL MEASURES IN ACCORDANCE WITH THE INTERNATIONAL EROSION CONTROL ASSOCIATION BPESC DOCUMENT.

SHEET LAYOUT





NOTE:
SEDIMENT AND EROSION CONTROL MEASURES SHOWN RELATE TO THE FINISHED SURFACE ONLY AND ARE CONCEPTUAL ONLY.
THE CONTRACTOR IS TO PREPARE A SITE SPECIFIC CONSTRUCTION AND MAINTENANCE PHASE SEDIMENT AND EROSION CONTROL PLAN.

DIAL BEFORE YOU DIG www.1100.com.au

PROJECT NAME

TURNOCK ST, KINGSCLIFF
BULK EARTHWORKS
HAUL ROAD

RP DESCRIPTION
Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT
GALES HOLDINGS

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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DRAWING TITLE
FINAL SURFACE AND SEDIMENT AND EROSION PLAN SHEET 01

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Civil Engineering
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DESIGNED	RB	DRAWN	EP
APPROVED	NER 906726	DATE	25-06-20

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27307-BE1-080	A

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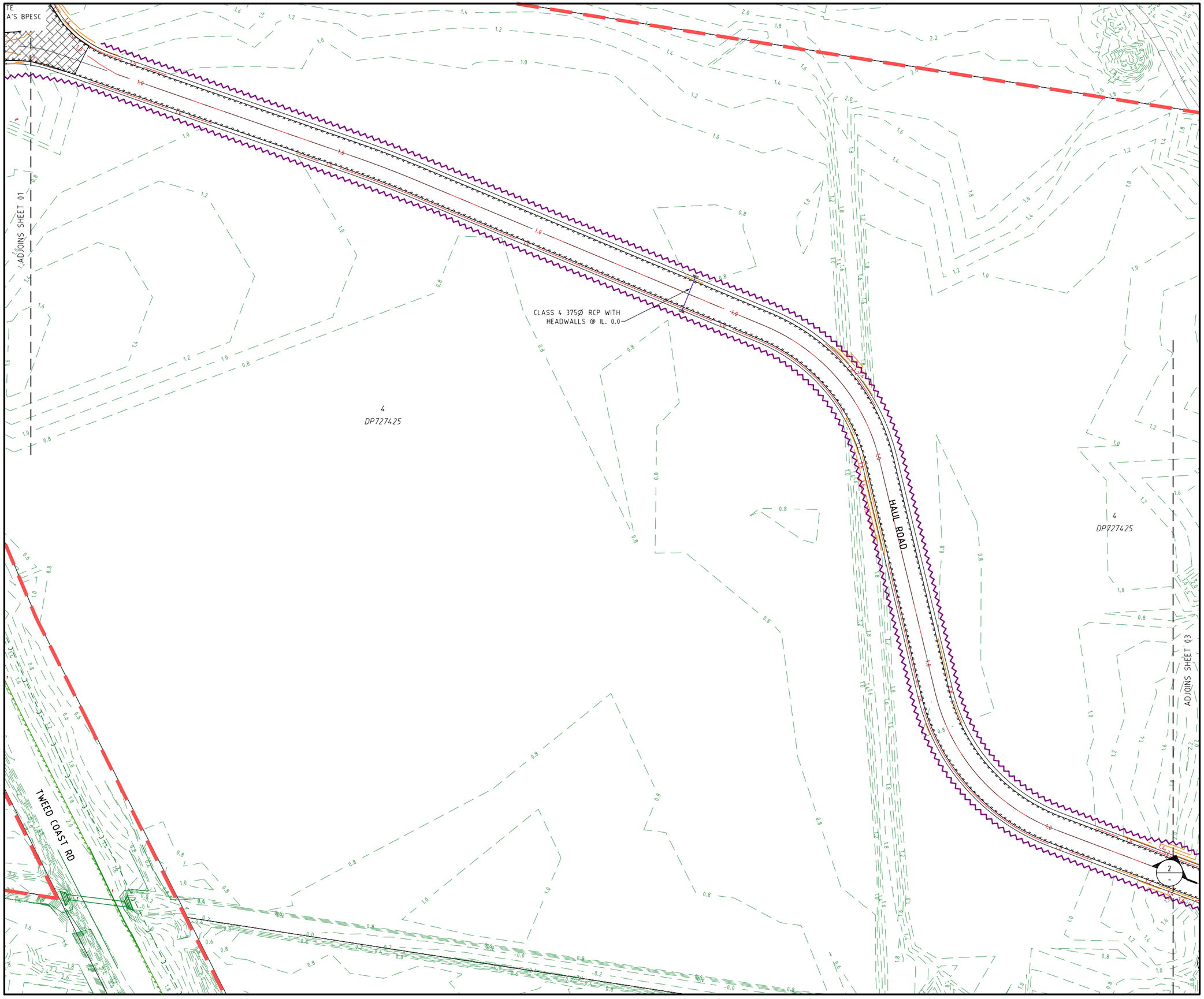

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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DRAWING TITLE

FINAL SURFACE AND SEDIMENT AND EROSION PLAN
SHEET 02

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APPROVED	NER 906726	DATE	25-06-20

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27307-BE1-081	A

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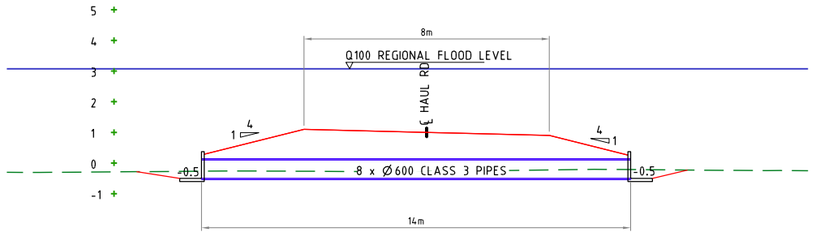

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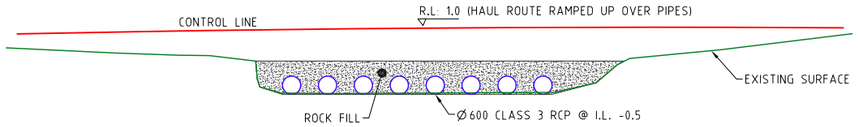

SECTION 2
SCALE: 1:100

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS
HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE	
TENDER		
COUNCIL	09-10-20	
CONSTRUCTION	..	

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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FINAL SURFACE AND SEDIMENT AND EROSION PLAN
SHEET 03

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DRAWING NUMBER	AMEND.
27307-BE1-082	A

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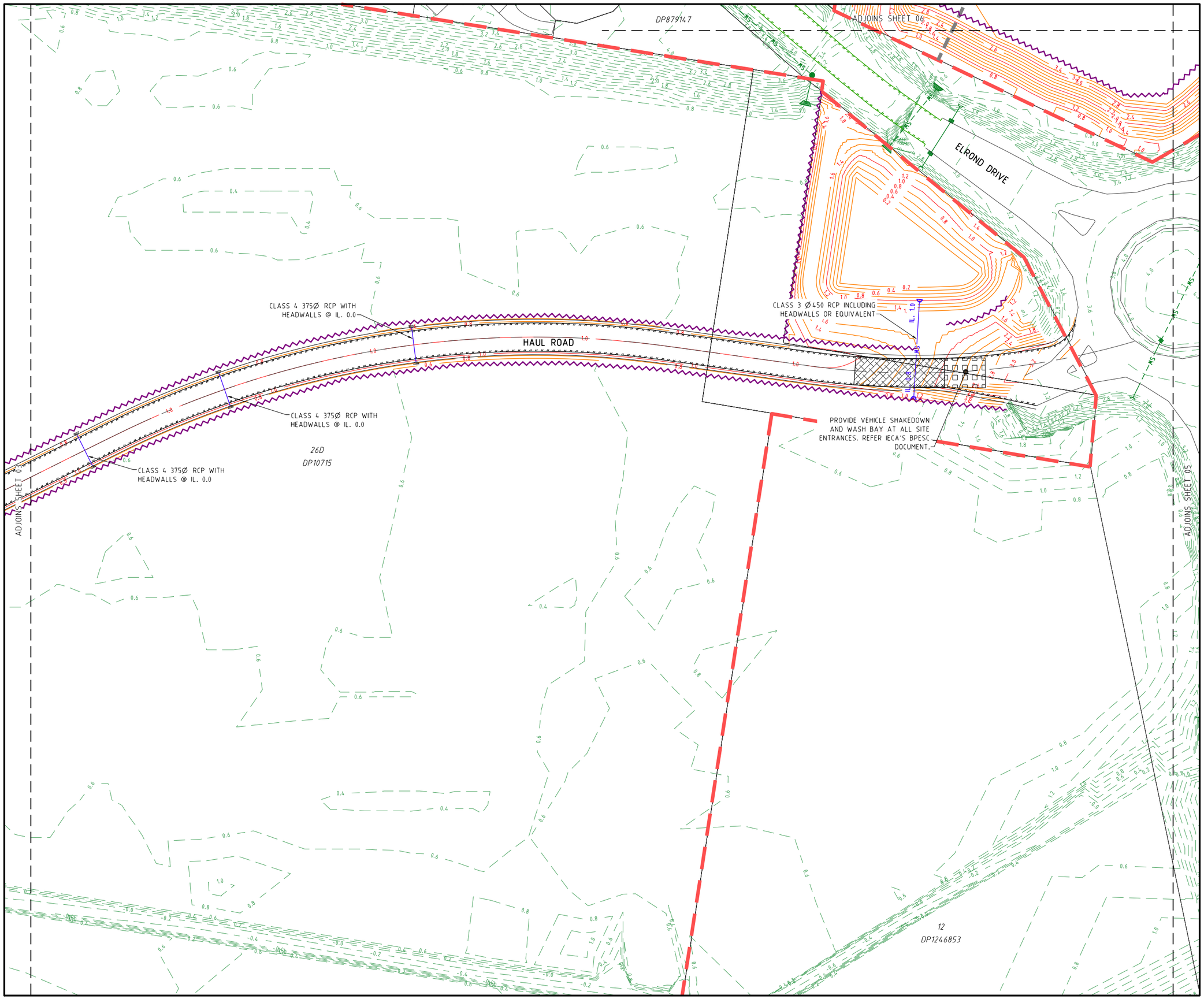

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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FINAL SURFACE AND SEDIMENT AND EROSION PLAN
SHEET 04

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APPROVED		NER 906726	DATE 25-06-20

DRAWING NUMBER	AMEND.
27307-BE1-083	A

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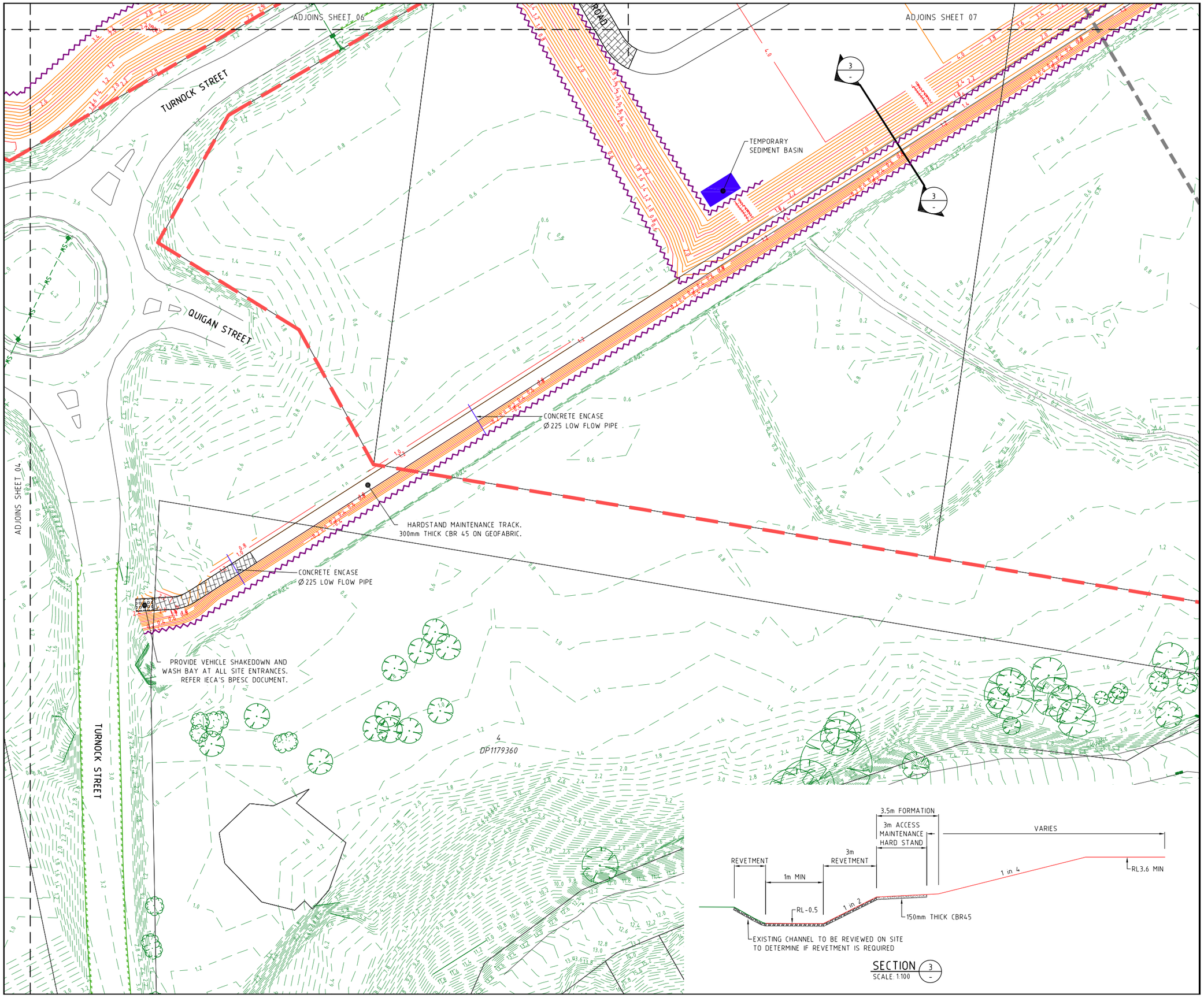

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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DRAWING TITLE

FINAL SURFACE AND SEDIMENT AND EROSION PLAN
SHEET 05

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APPROVED		NER 906726	DATE 25-06-20

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AMEND. A

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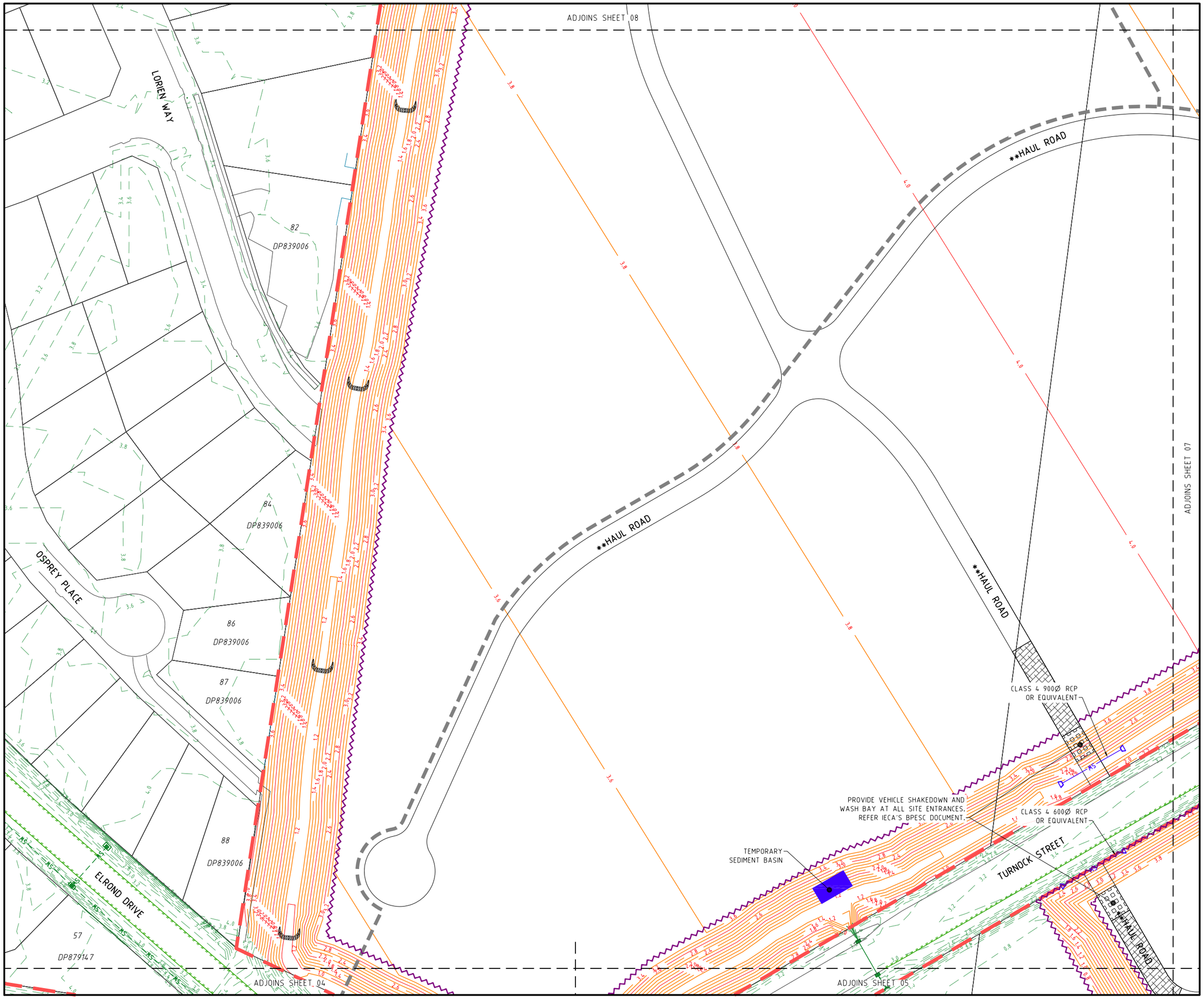

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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DRAWING TITLE

FINAL SURFACE AND SEDIMENT AND EROSION PLAN SHEET 06

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APPROVED	NER 906726	DATE	25-06-20

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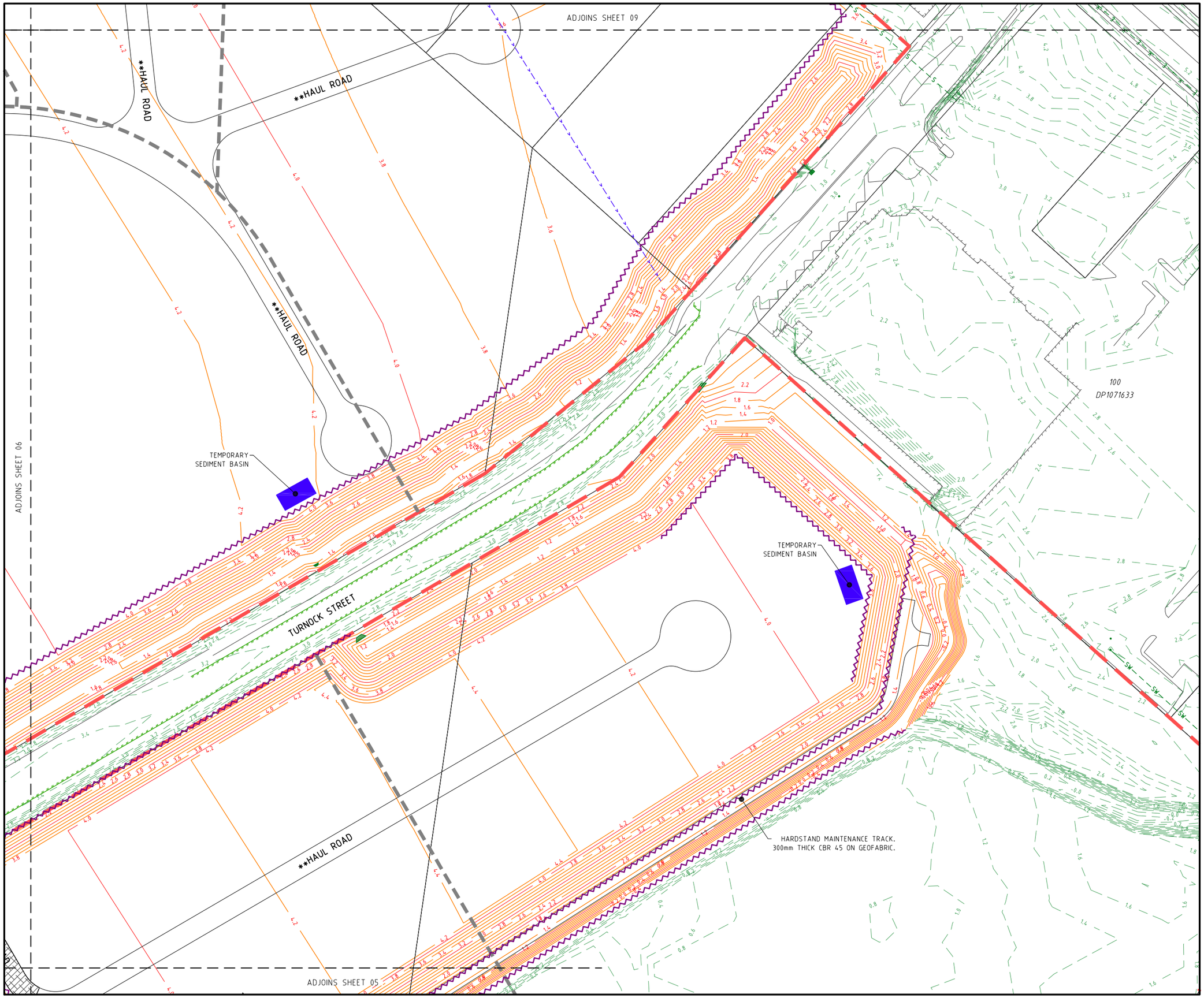

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS
HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE	
TENDER		
COUNCIL	09-10-20	
CONSTRUCTION	..	

PRE	DATE	AMENDMENT
A	09-10-20	COUNCIL ISSUE

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DRAWING TITLE

FINAL SURFACE AND SEDIMENT AND EROSION PLAN
SHEET 07

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APPROVED | NER 906726 | DATE 25-06-20

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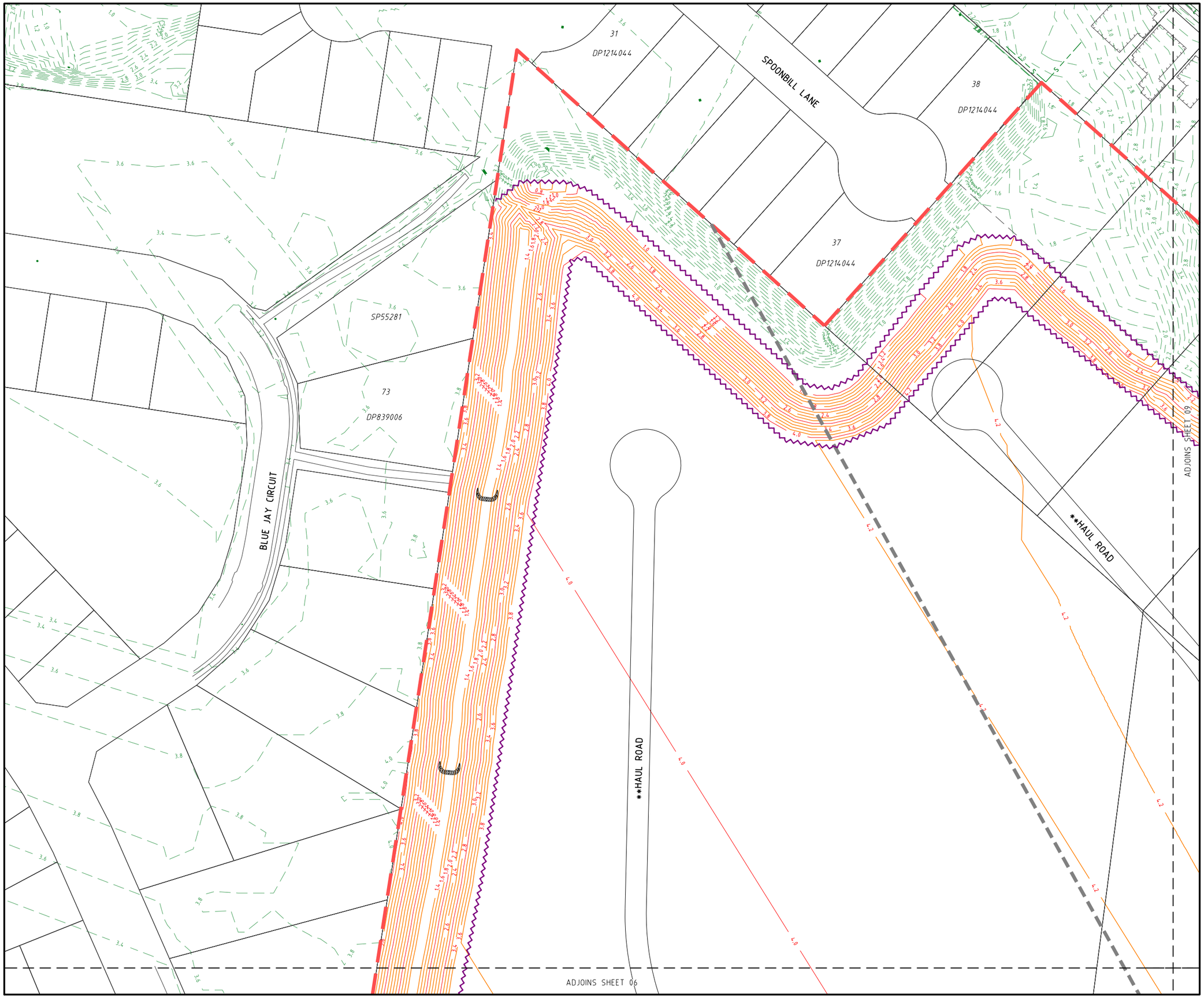

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
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FINAL SURFACE AND SEDIMENT AND EROSION PLAN
SHEET 08

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27307-BE1-087	A

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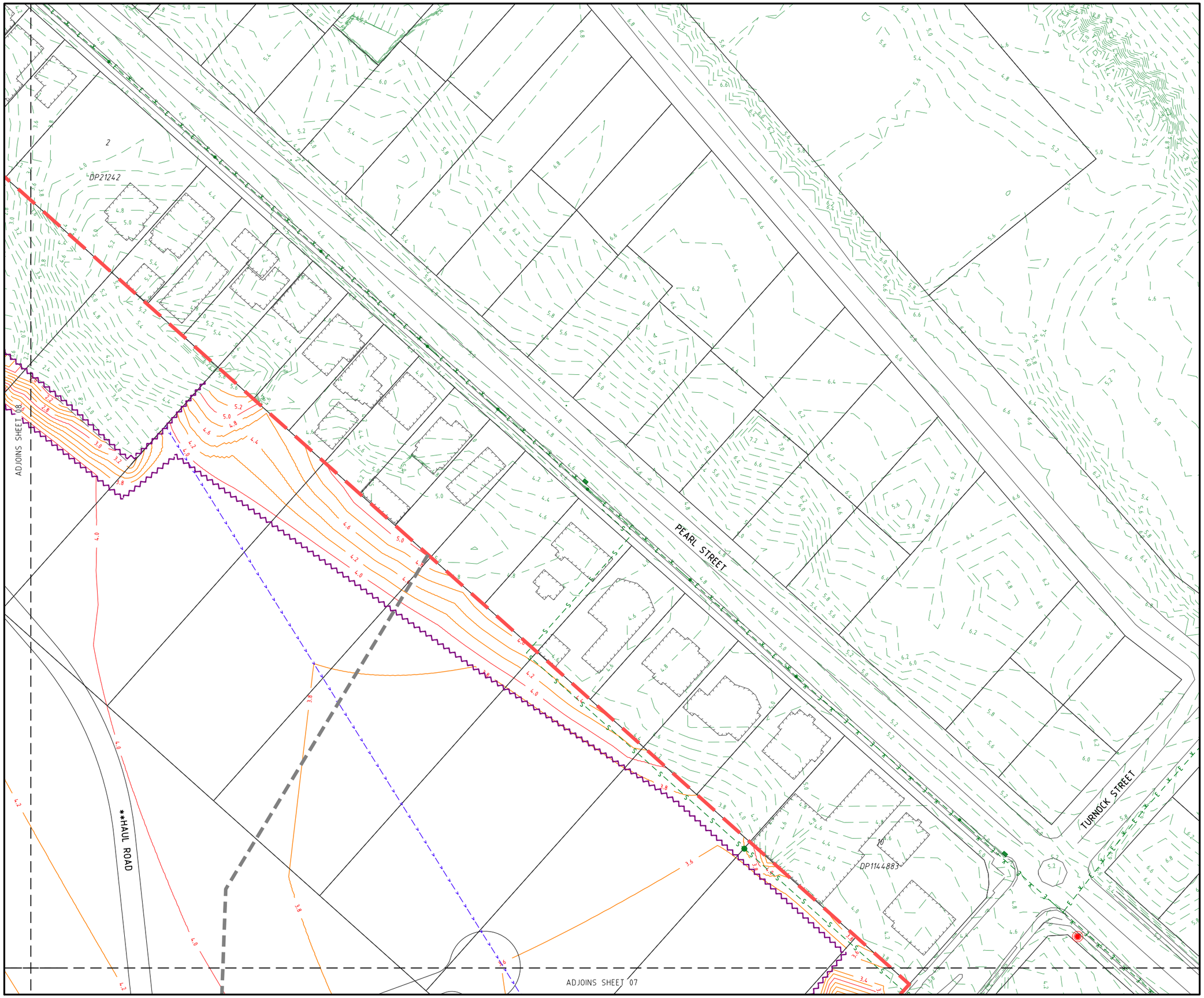

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS
HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
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DRAWING TITLE

FINAL SURFACE AND SEDIMENT AND EROSION PLAN
SHEET 09

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Project Coordination

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APPROVED	NER 906726	DATE	25-06-20

DRAWING NUMBER	AMEND.
27307-BE1-088	A

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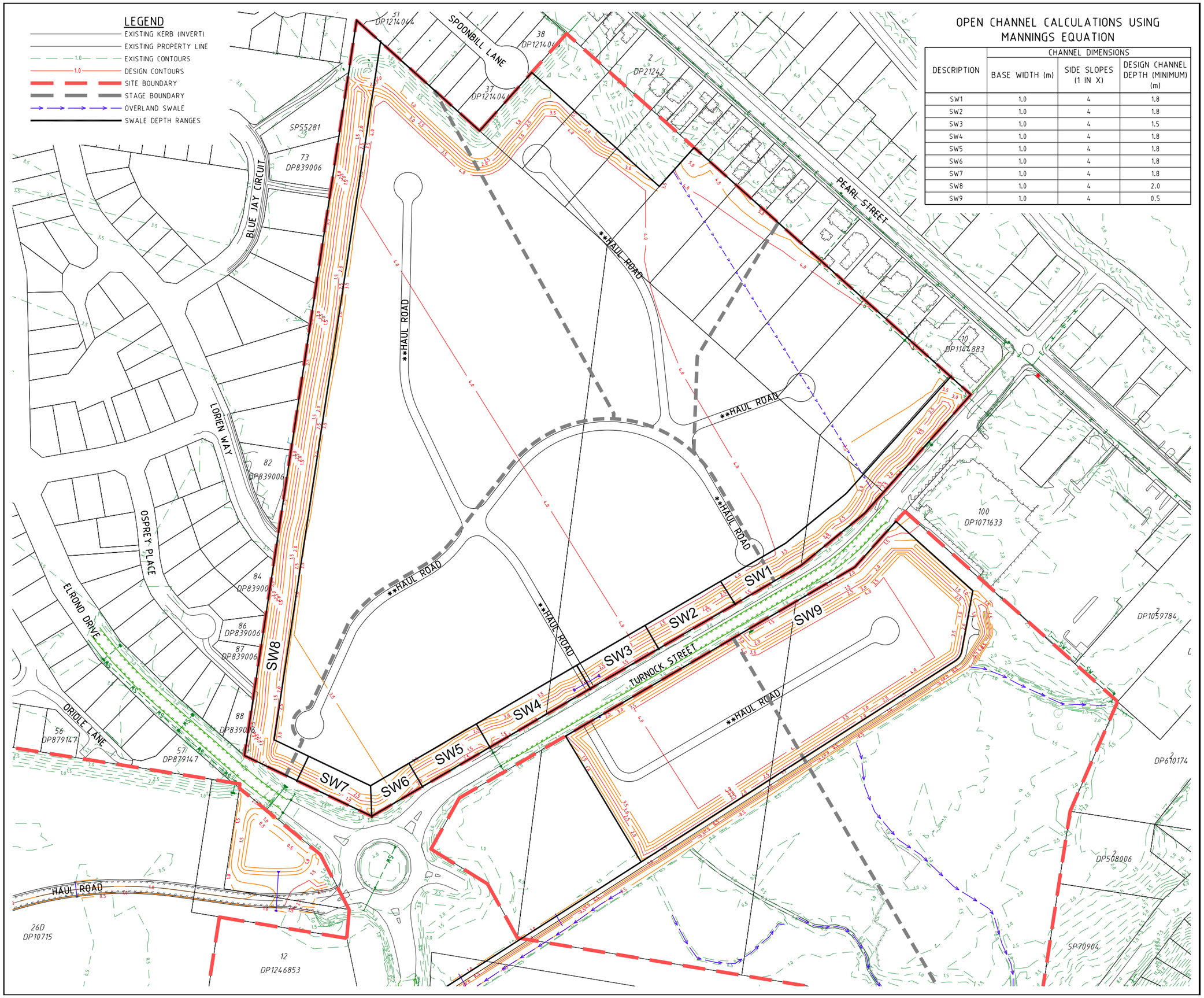

OPEN CHANNEL CALCULATIONS USING MANNINGS EQUATION

DESCRIPTION	CHANNEL DIMENSIONS		
	BASE WIDTH (m)	SIDE SLOPES (1 IN X)	DESIGN CHANNEL DEPTH (MINIMUM) (m)
SW1	1.0	4	1.8
SW2	1.0	4	1.8
SW3	1.0	4	1.5
SW4	1.0	4	1.8
SW5	1.0	4	1.8
SW6	1.0	4	1.8
SW7	1.0	4	1.8
SW8	1.0	4	2.0
SW9	1.0	4	0.5

PROJECT NAME

TURNOCK ST, KINGSCLIFF

BULK EARTHWORKS HAUL ROAD

RP DESCRIPTION

Lots 1-9 on DP781714, Part of Lots 11-13 on DP871753, Lot 14 on DP871753, Part of Lot 26C on DP10715, Part of Lot 26D on DP10715, Part of Lot 1 on DP1223699, Part of Lot 4 on DP727425 & Part of Lot 3 on DP828298
TURNOCK STREET, QUIGAN STREET, CHINDERAH ROAD & TWEED COAST ROAD
LOCALITY OF KINGSCLIFF, CHINDERAH & CUDGEN
LOCAL AUTHORITY-TWEED SHIRE COUNCIL

CLIENT

GALES HOLDINGS

NORTH

0 12.5 25 37.5 50 62.5m
Scale 1:1250 - A1 (1:2500 - A3)

ISSUES	DATE
TENDER	
COUNCIL	09-10-20
CONSTRUCTION	..

PRE	DATE	AMENDMENT
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DRAWING TITLE

DRAINAGE SWALE PLAN

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