COURTNEY DRIVE
UPPER COOMERA

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

OPERATIONAL WORKS
STAGE 01
No. 41901-01

CONSTRUCTION ISSUE

SCHEDULE OF DRAWINGS

NUMBER	REV. NO.	TITLE
GENERAL		
41901-01-000	K	COVER SHEET
41901-01-003	A	SAFETY IN DESIGN
41901-01-004	A	RISK MATRIX & NOTES
41901-01-005	D	ROAD HIERARCHY STAGING PLAN & GENERAL NOTES
EARTHWORKS: EXISTING FEATURES & DEMOLITION		
41901-01-020	B	PLAN
EARTHWORKS: BULK EARTHWORKS CUT FILL		
41901-01-040	B	PLAN SHEET 01
41901-01-041	D	PLAN SHEET 02
41901-01-042	B	PLAN SHEET 03
41901-01-043	B	PLAN SHEET 04
41901-01-045	D	GEOTECHNICAL REQUIREMENTS PLAN
41901-01-050	D	EARTHWORKS SECTION KEY PLAN
41901-01-051	A	SECTIONS-SHEET 01
41901-01-052	A	SECTIONS-SHEET 02
41901-01-053	A	SECTIONS-SHEET 03
41901-01-054	B	SECTIONS-SHEET 04
41901-01-055	A	SECTIONS-SHEET 05
EARTHWORKS: RETAINING WALL & DETAIL GRADING		
41901-01-060	D	PLAN SHEET 01
41901-01-061	C	PLAN SHEET 02
41901-01-062	C	PLAN SHEET 03
41901-01-063	B	PLAN SHEET 04
41901-01-064	C	PLAN SHEET 05
41901-01-065	C	PLAN SHEET 06
41901-01-070	B	DETAILS SHEET 01
41901-01-070A	B	DETAILS SHEET 02
41901-01-071	A	FINAL TRIM DETAILS
EARTHWORKS: PADMOUNT SECTIONS		
41901-01-076	C	PADMOUNT 5
EARTHWORKS: FINAL SURFACE & SEDIMENT AND EROSION CONTROL		
41901-01-080	C	PLAN SHEET 01
41901-01-081	D	PLAN SHEET 02
ROADS: COMBINED SERVICES		
41901-01-090	H	PLAN SHEET 01
41901-01-091	E	PLAN SHEET 02
ROADS: ROADWORKS		
41901-01-100	G	PLAN SHEET 01
41901-01-101	E	PLAN SHEET 02
41901-01-120	C	DETAILS
ROADS: LONGITUDINAL SECTIONS		
41901-01-200	B	SHEET 01
41901-01-201	B	SHEET 02
41901-01-202	C	SHEET 03
41901-01-203	B	SHEET 04
ROADS: CROSS SECTIONS		
41901-01-300	B	SHEET 01
41901-01-301	A	SHEET 02
41901-01-302	A	SHEET 03
41901-01-303	A	SHEET 04
41901-01-304	A	SHEET 05
41901-01-305	B	SHEET 06
ROADS: INTERSECTION GRADING		
41901-01-400	C	DETAILS
ROADS: JOINTING DETAILS		
41901-01-410	C	PLAN AND DETAILS SHEET 01
ROADS: LINEMARKING AND SIGNAGE		
41901-01-420	E	PLAN SHEET 01
41901-01-421	C	PLAN SHEET 02
SEWER: SEWER RETICULATION		
41901-01-500	D	PLAN SHEET 01
41901-01-501	E	PLAN SHEET 02
41901-01-505	B	GORDON DRIVE DETAILS PLAN SHEET 01
41901-01-510	A	DETAILS
SEWER: PROFILES		
41901-01-530	C	SHEET 01
41901-01-531	C	SHEET 02
41901-01-532	C	SHEET 03
41901-01-533	D	SHEET 04
41901-01-534	A	SHEET 05
SEWER: HOUSE CONNECTION PROFILES		
41901-01-550	C	SHEET 01
41901-01-551	C	SHEET 02
DRAINAGE: STORMWATER		
41901-01-600	F	PLAN SHEET 01
41901-01-601	E	PLAN SHEET 02
DRAINAGE: PROFILES		
41901-01-620	C	SHEET 01
41901-01-621	B	SHEET 02
41901-01-622	C	SHEET 03
41901-01-623	D	SHEET 04
DRAINAGE: PIT DETAILS & TYPICAL DETAILS		
41901-01-640	B	OUTLETS & TYPICAL DETAILS SHEET 01
41901-01-650	E	PIT DETAILS SHEET 01
41901-01-651	B	PIT DETAILS SHEET 02
41901-01-652	D	PIT DETAILS SHEET 03
DRAINAGE: BASINS & CULVERTS		
41901-01-660	D	PLAN SHEET 01
41901-01-661	D	PLAN SHEET 02
41901-01-662	A	SECTIONS
41901-01-663	C	DETAILS SHEET 01
41901-01-664	A	DETAILS SHEET 02
DRAINAGE: CATCHMENT		
41901-01-670	D	PLAN SHEET 01
41901-01-671	D	PLAN SHEET 02
DRAINAGE: CALCULATION TABLES		
41901-01-680	C	MINOR TABLE
41901-01-681	C	MAJOR TABLE
WATER: WATER RETICULATION		
41901-01-700	G	PLAN SHEET 01
41901-01-701	D	PLAN SHEET 02
41901-01-710	A	DETAILS
EARTHWORKS BORROW EREA		
41901-01-800	A	PLAN SHEET 01

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

COMPASS ASSURANCE ISO 9001 QUALITY

CLIENT

HB Land

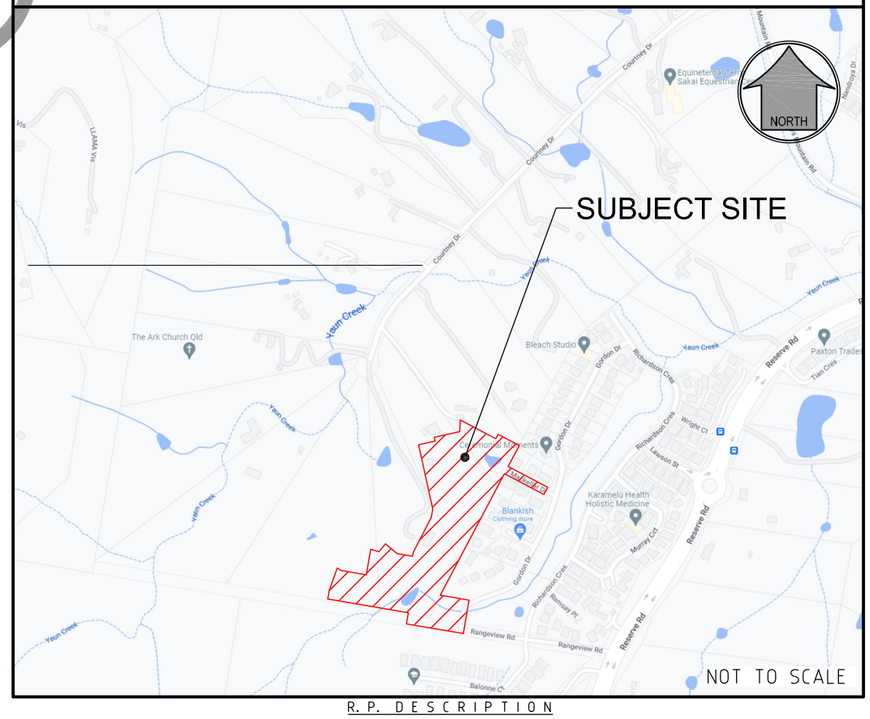
SUB-CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING

Robin Russell & ASSOCIATES PTY. LTD.

BENNETT+BENNETT

LOCALITY PLAN



R. P. DESCRIPTION
LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

DRAWING NUMBER	AMEND.
41901-01-000	K

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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.

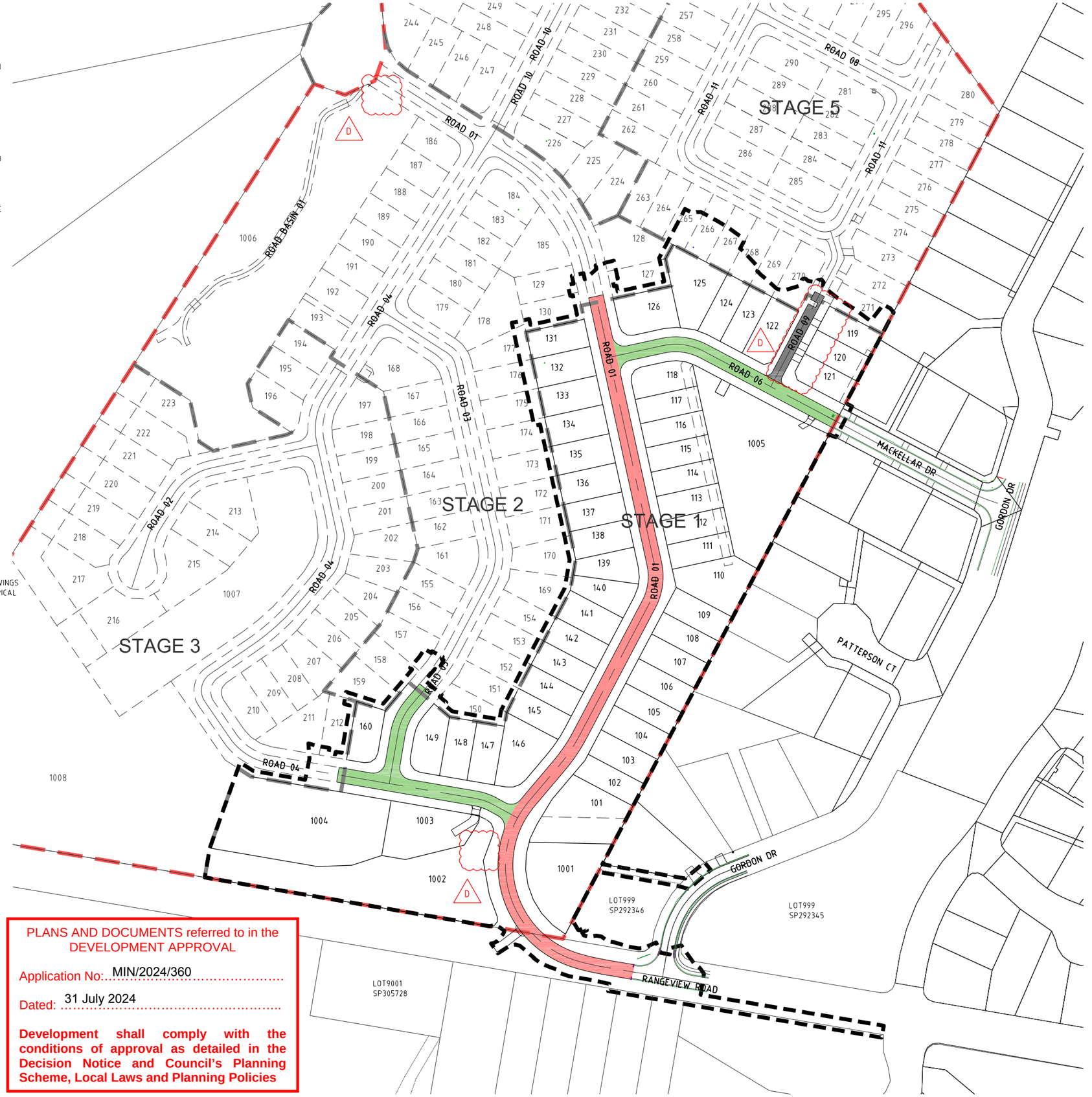
a) GEOTECHNICAL INVESTIGATION REPORTS (INCLUDING ANY ACID SULPHATE OR DISPERSIVE SOIL REPORTING)
b) VEGETATION & FAUNA MANAGEMENT PLANS
c) OTHER MANAGEMENT PLANS NOMINATED IN THE CONTRACT, AUTHORITIES APPROVAL CONDITIONS OR BY THE SUPERINTENDENT.

LEGEND

- RESIDENTIAL ACCESS STREET (5.5m CARRIAGEWAY)
- RESIDENTIAL ACCESS STREET (7.5m CARRIAGEWAY)
- RESIDENTIAL COLLECTOR STREET (7.5m CARRIAGEWAY)

REFER 120 DRAWINGS SERIES FOR TYPICAL SECTIONS

- EXISTING PROPERTY LINE
- EXISTING KERB (INVERT)
- FUTURE PROPERTY LINE
- FUTURE KERB (INVERT)
- PROPOSED PROPERTY LINE
- PROPOSED KERB (INVERT)
- SITE BOUNDARY
- STAGE BOUNDARY
- LIMIT OF WORKS BOUNDARY



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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No:.....MIN/2024/360.....

Dated: .....31 July 2024.....

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

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

REV	DATE	DESCRIPTION	INT
D	19-06-24	PAD MOUNTS REMOVED AND DRIVEWAYS ADDED	BL
C	14-07-23	RFI AMENDMENTS	EP
B	20-03-23	ROAD HIERARCHY AMENDED	JB
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT + BENNETT

DRAWING TITLE

ROAD HIERARCHY,
STAGING PLAN
&
GENERAL NOTES

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination
MUS Pty Ltd T/As:
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DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ 4706	DATE 03-03-23

DRAWING NUMBER 41901-01-005 REV D

F:\Autocad Client\419 - HB Land\01 - Courtney Drive\Precinct-Stage 01\Engineering Drawings\Current\41901-01-005.dwg, ROAD HIERARCHY STAGING PLAN & GENERAL NOTES, 24/06/2024 2:26:13 PM, 1:2

GENERAL

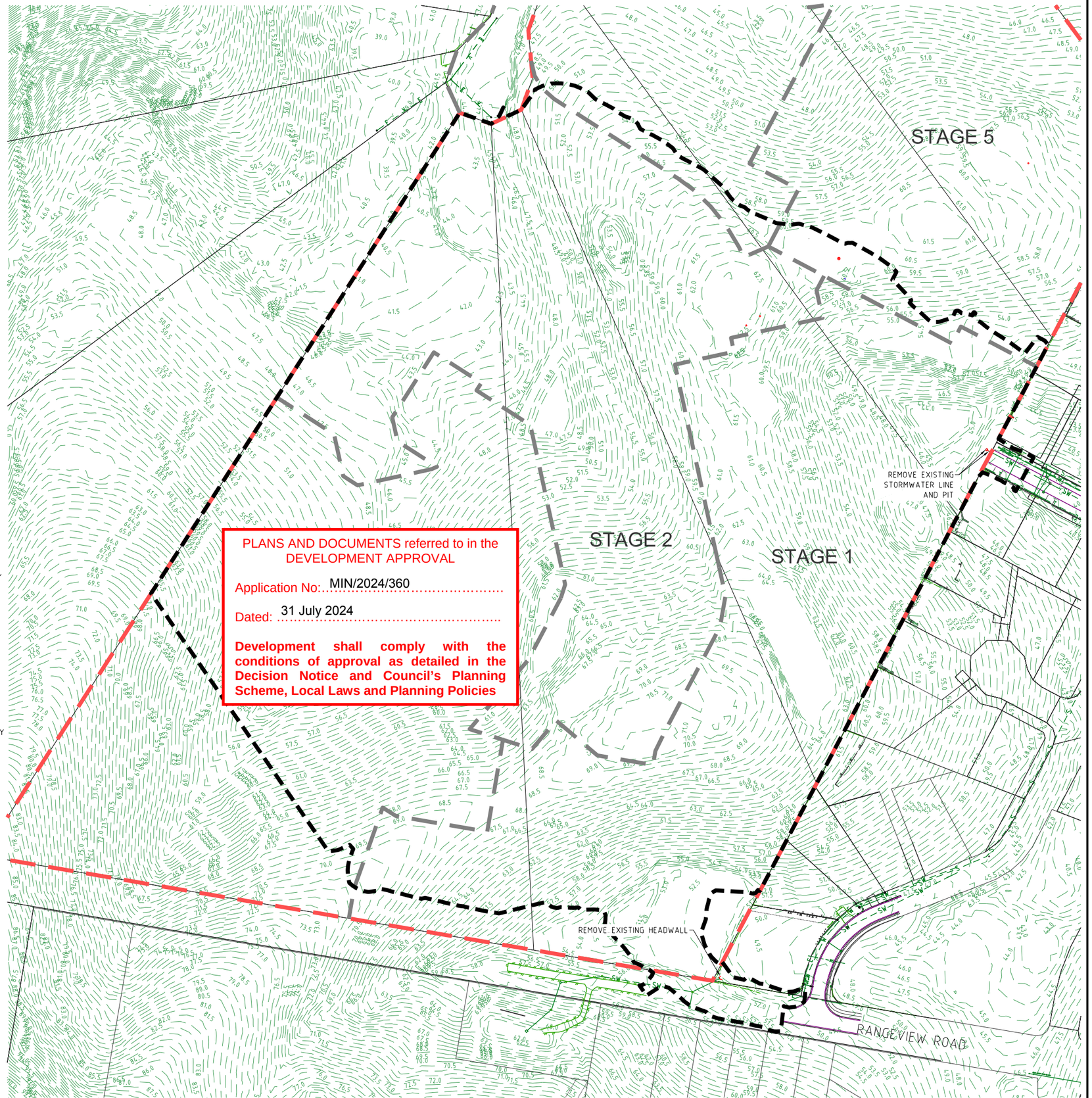
1. EXISTING SERVICES - EXTERNAL WORKS
   THE LOCATIONS OF ALL EXISTING SERVICES WITHIN THE WORK AREA SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION COMMENCING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE RELEVANT AUTHORITIES & TO ENSURE THAT THE EXISTING SERVICES ARE NOT DAMAGED 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

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BENNETT + BENNETT

DRAWING TITLE

EXISTING FEATURES AND DEMOLITION PLAN

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination
MUS Pty Ltd T/As
Mortons-Urban Solutions
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Southport QLD 4215
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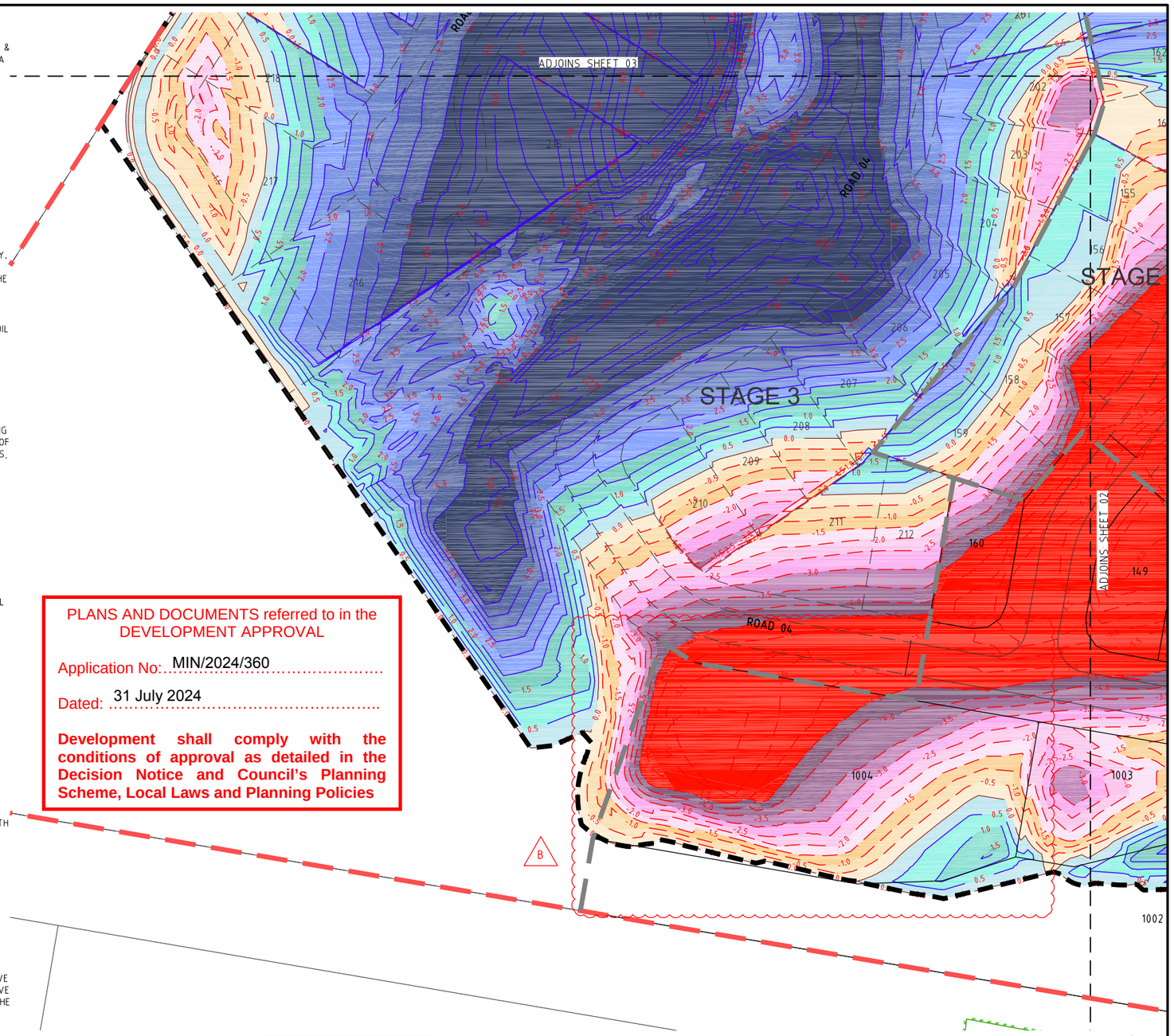
DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ 4706	DATE 03-03-23

DRAWING NUMBER 41901-01-020 REV B

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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 IDEX <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 & XW BEDROCK
    d) ALL REACTIVE SOILS ARE TO BE PLACED IN THE LOWER SECTIONS OF FILL WITH THE LESS REACTIVE RESIDUAL SOILS & XW BEDROCK TO BE PLACE IN THE UPPER FILLS. ALTERNATIVELY, THE REACTIVE SOILS CAN BE BLENDED WITH THE LESS REACTIVE SOILS & XW 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.



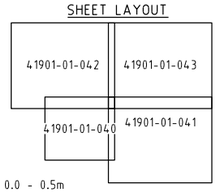
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SHEET LAYOUT



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

LEGEND

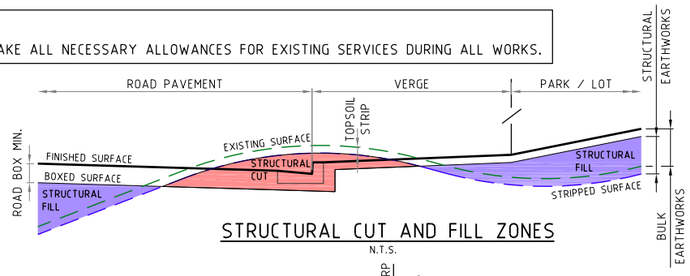
- EXISTING PROPERTY LINE
- EXISTING KERB (INVERT)
- FUTURE KERB (INVERT)
- FUTURE PROPERTY LINE
- SITE BOUNDARY
- STAGE BOUNDARY
- LIMIT OF EARTHWORKS BOUNDARY
- PROPOSED PROPERTY LINE
- PROPOSED KERB (INVERT)
- -0.5 CUT CONTOUR
- 0.0 INTERFACE CONTOUR
- 0.5 FILL CONTOUR

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

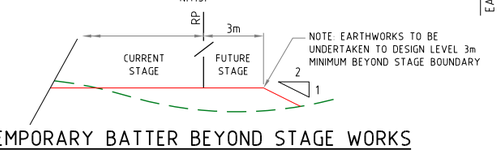
FILL #
- 0.0 - 0.5m
- 0.5 - 1.0m
- 1.0 - 1.5m
- 1.5 - 2.0m
- 2.0 - 2.5m
- 2.5 - 3.0m
- 3.0 - 3.5m
- 3.5 - 4.0m
- 4.0 - 4.5m
- 4.5m +

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.



TEMPORARY BATTER BEYOND STAGE WORKS
N.T.S.

PROJECT NAME
COURTNEY DR
UPPER COOMERA

STAGE 01

RP DESCRIPTION
LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT
HB Land

NORTH

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

REV	DATE	DESCRIPTION	INT
B	19-06-24	EARTHWORKS UPDATED	BL
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS
BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT+BENNETT

DRAWING TITLE
EARTHWORKS
CUT TO FILL
PLAN
SHEET 01

MORTONS urbansolutions
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Civil Engineering
Project Coordination
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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER 41901-01-040
REV B

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STAGE 2

ADJOINS SHEET 04

ADJOINS SHEET 01

ROAD 03

ROAD 01

PATTERSON CT

GORDON DR

RANGEVIEW ROAD

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 5 10 15 20 25m

Scale 1:500 - A1 (1:1000 - A3)

REV	DATE	DESCRIPTION	INT
D	19-06-24	PAD MOUNT REMOVED AND EARTHWORKS UPDATED	BL
C	15-04-24	E.WORKS EXTENDED TO TIE INTO EXISTING	EP
B	23-02-24	EARTHWORKS AMENDED LOT 110	BL
A	03-03-23	COUNCIL ISSUE	JB

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DRAWING TITLE

EARTHWORKS
CUT TO FILL
PLAN
SHEET 02

MORTONS urbansolutions
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Project Coordination

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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER 41901-01-041

REV D

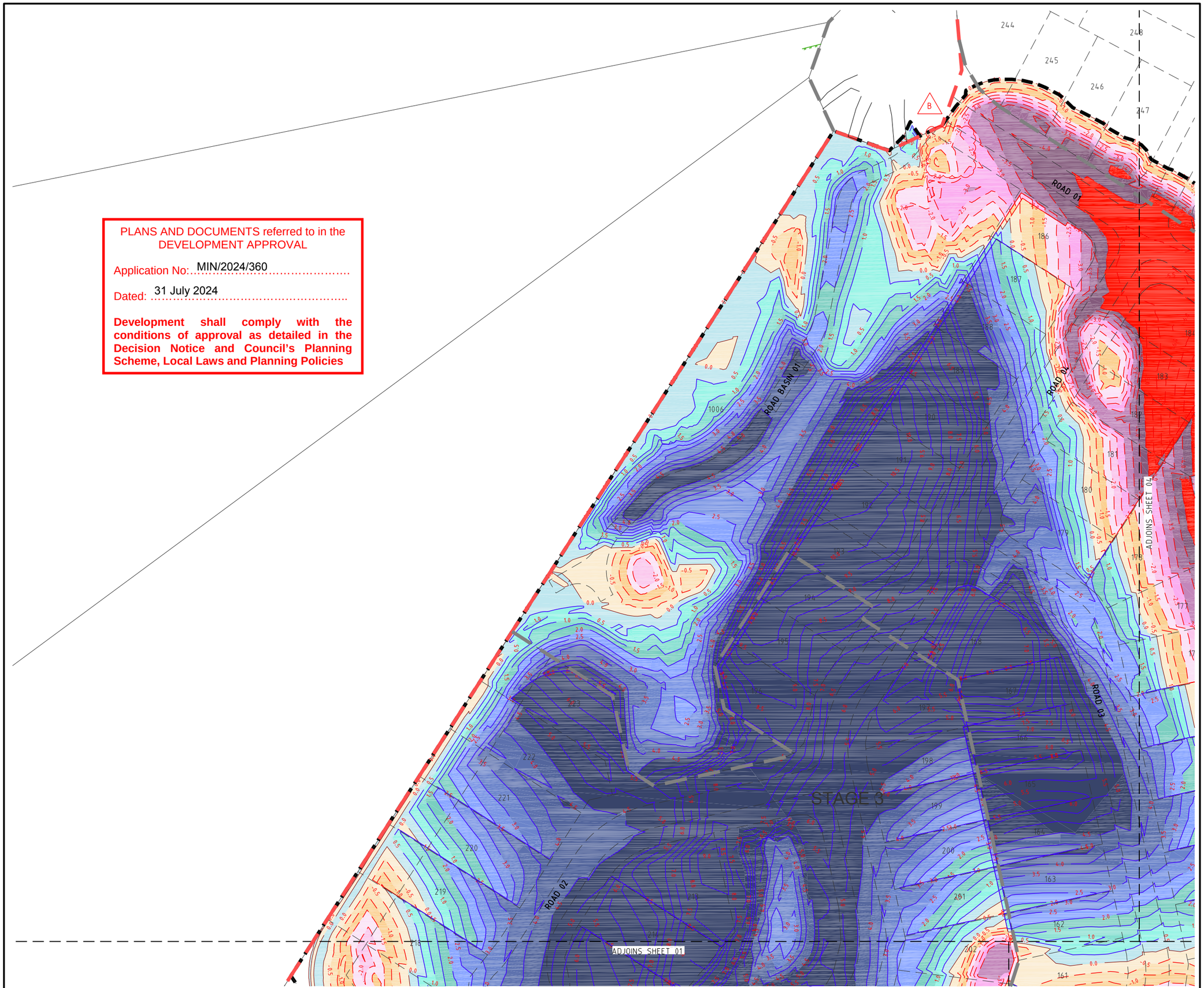
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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

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

REV	DATE	DESCRIPTION	INT
B	19-06-24	PAD MOUNT REMOVED	BL
A	03-03-23	COUNCIL ISSUE	JB

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DRAWING TITLE

EARTHWORKS
CUT TO FILL
PLAN
SHEET 03

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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER	REV
41901-01-042	B

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STAGE 4

STAGE 5

STAGE 2

STAGE 1

ROAD 10

ROAD 11

ROAD 08

ROAD 11

ROAD 09

ROAD 06

ROAD 01

ROAD 03

MACKELLAR DR

GORDON DR

ADJOINS SHEET 03

ADJOINS SHEET 02

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 5 10 15 20 25m

Scale 1:500 - A1 (1:1000 - A3)

REV	DATE	DESCRIPTION	INT
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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DRAWING TITLE

EARTHWORKS
CUT TO FILL
PLAN
SHEET 04

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER	REV
41901-01-043	B

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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

EXTENT OF WORKS TO BE DETERMINED ON SITE. REFER TO GEOTECHNICAL NOTE IN LEGEND

EXTENT OF WORKS TO BE DETERMINED ON SITE. REFER TO GEOTECHNICAL NOTE IN LEGEND

STAGE 1

STAGE 2

STAGE 3

ROAD 01

ROAD 02

ROAD 03

ROAD 04

ROAD 06

ROAD 09

ROAD 11

ROAD BASIN 01

PATTERSON CT

GORDON DR

MACKELLAR

LEGEND

- EXISTING KERB (INVERT)
- EXISTING PROPERTY LINE
- EXISTING CONTOURS
- FUTURE KERB (INVERT)
- FUTURE PROPERTY LINE
- FUTURE RETAINING WALL
- PROPOSED KERB (INVERT)
- PROPOSED PROPERTY LINE
- PROPOSED RETAINING WALL
- DESIGN CONTOURS
- SITE BOUNDARY
- STAGE BOUNDARY

FOR DETAILS RELATING TO THE MATERIAL FOR RETAINING WALL BACKFILL & COMPACTION REQUIREMENTS REFER TO SECTION 20 OF PACIFIC GEO - GEOTECHNICAL REPORT: BROADSCALE GEOTECHNICAL INVESTIGATION & LANDSLIDE ASSESSMENT FOR PROPOSED RESIDENTIAL SUBDIVISION. END OF COURTNEY DRIVE, UPPER COOMERA JAN 2023.

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 7.5 15 22.5 30 37.5m

Scale 1:750 - A1 (1:1500 - A3)

REV	DATE	DESCRIPTION	INT
D	19-06-24	PMT REMOVED, CONTS UPDATED & DRIVEWAYS ADDED	BL
C	23-02-24	CONTOURS & RETAINING WALL AMENDED LOT 110	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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Robin Russell & ASSOCIATES PTY. LTD.

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DRAWING TITLE

GEOTECHNICAL REQUIREMENTS PLAN

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Project Coordination

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APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER: 41901-01-045

REV: D

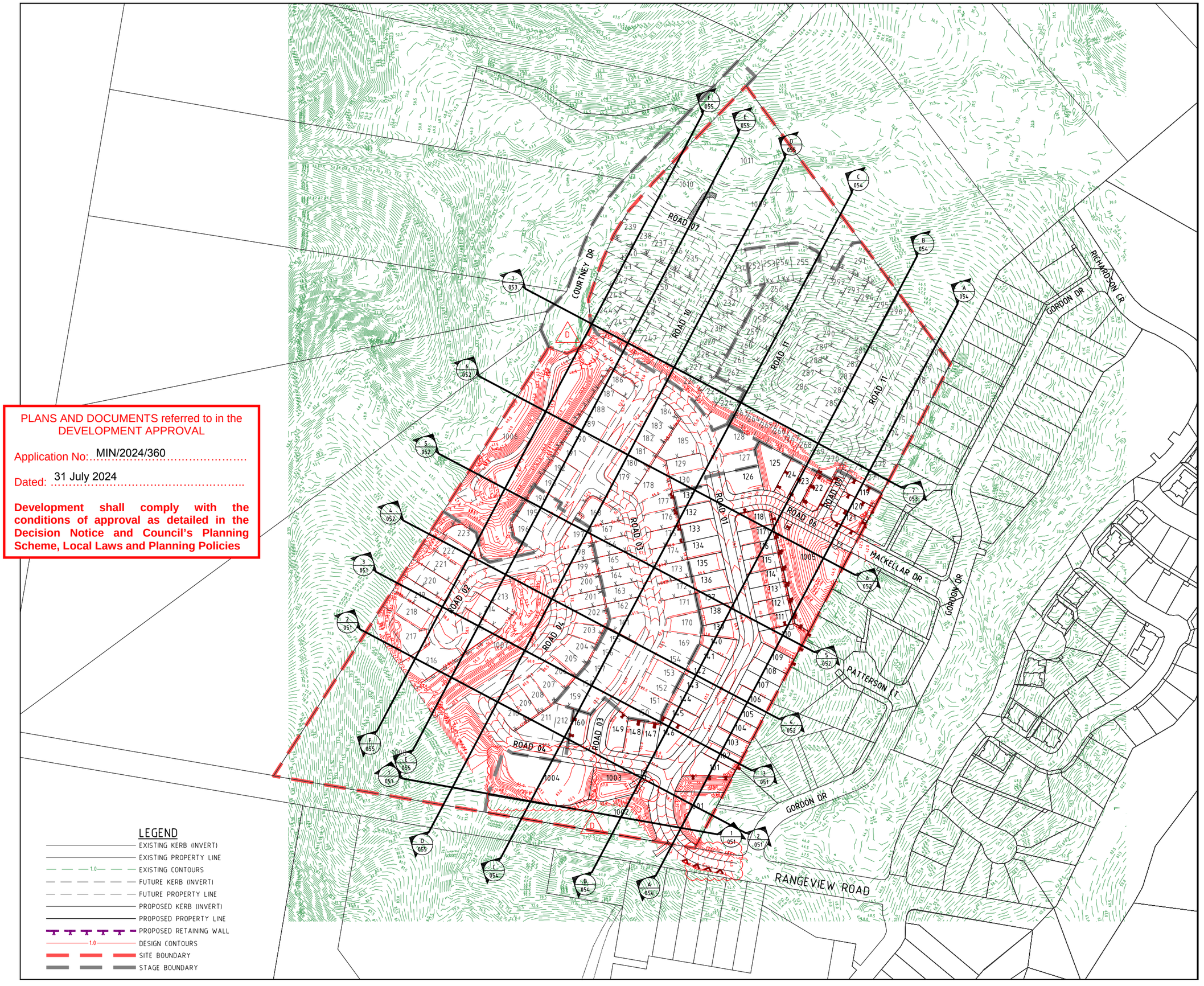
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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 15 30 45 60 75m

Scale 1:1500 - A1 (1:3000 - A3)

REV	DATE	DESCRIPTION	INT
D	19-06-24	PAD MOUNTS REMOVED & CONTOURS UPDATED	BL
C	23-02-24	CONTOURS & RETAINING WALL LOT 110 AMENDED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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DRAWING TITLE

BULK EARTHWORKS SECTION KEY PLAN

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Civil Engineering
Project Coordination

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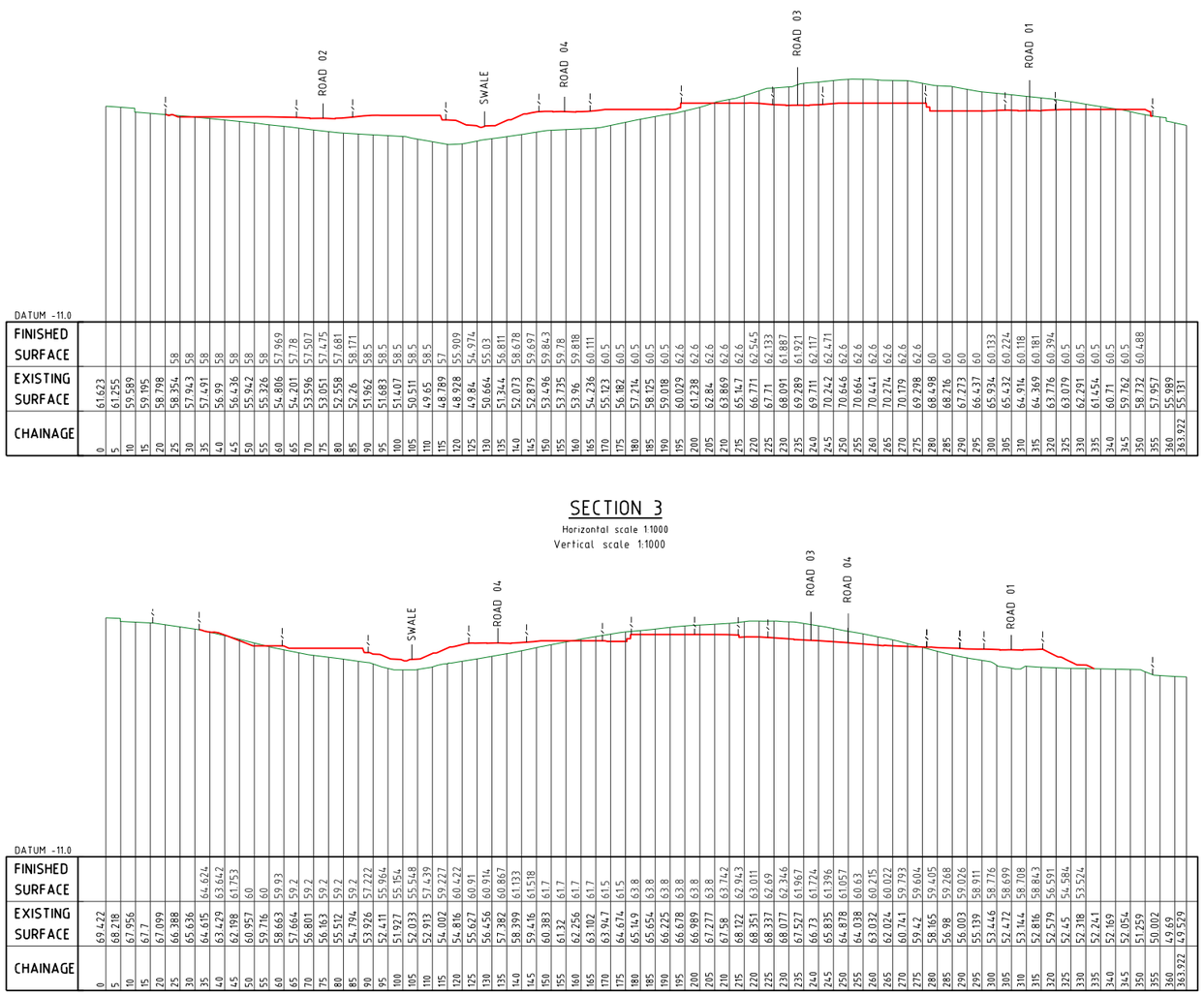
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Suite 9, 19 Short St
Southport QLD 4215

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APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER: 41901-01-050

REV: D

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DATUM -11.0

CHAINAGE	FINISHED SURFACE	EXISTING SURFACE
0		61.623
5		61.255
10		59.589
15		59.195
20	58	58.798
25	58	58.354
30	58	57.943
35	58	57.491
40	58	56.99
45	58	56.436
50	58	55.942
55	58	55.326
60	57.969	54.806
65	57.78	54.201
70	57.507	53.596
75	57.475	53.051
80	57.681	52.558
85	58.171	52.26
90	58.5	51.962
95	58.5	51.683
100	58.5	51.407
105	58.5	50.511
110	58.5	49.65
115	57	48.789
120	55.909	48.928
125	54.974	49.84
130	55.03	50.664
135	56.811	51.344
140	58.678	52.073
145	59.697	52.879
150	59.843	53.496
155	59.78	53.735
160	59.818	53.96
165	60.111	54.236
170	60.5	55.123
175	60.5	56.182
180	60.5	57.214
185	60.5	58.125
190	60.5	59.018
195	62.6	60.029
200	62.6	61.238
205	62.6	62.84
210	62.6	63.869
215	62.6	65.147
220	62.545	66.771
225	62.133	67.71
230	61.887	68.091
235	61.921	69.289
240	62.117	69.711
245	62.471	70.242
250	62.6	70.646
255	62.6	70.664
260	62.6	70.441
265	62.6	70.274
270	62.6	70.179
275	62.6	69.298
280	60	68.498
285	60	68.216
290	60	67.233
295	60	66.437
300	60.133	65.934
305	60.224	65.432
310	60.118	64.914
315	60.181	64.369
320	60.394	63.776
325	60.5	63.079
330	60.5	62.291
335	60.5	61.454
340	60.5	60.71
345	60.5	59.762
350	60.688	58.732
355		57.957
360		55.989
363.922		55.191

SECTION 3

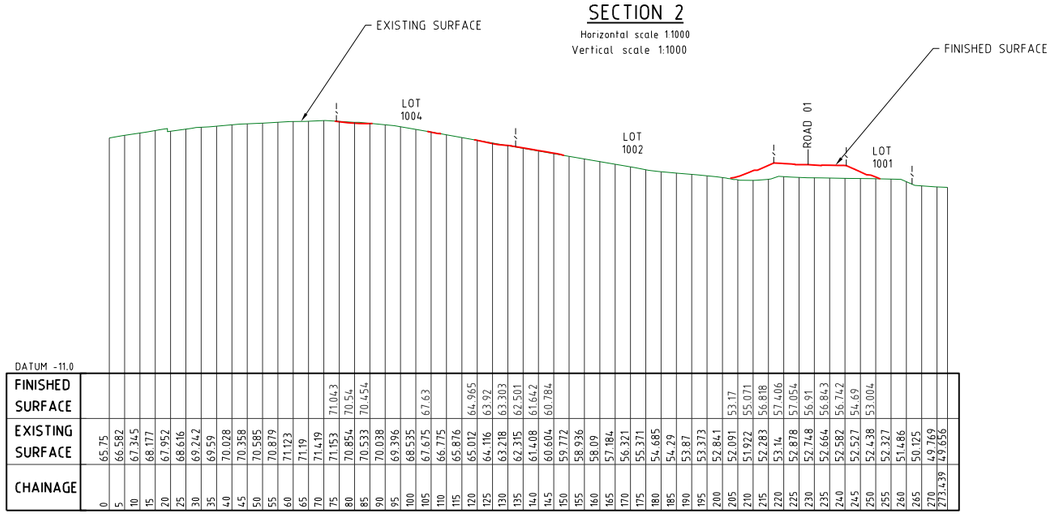
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Vertical scale 1:1000

DATUM -11.0

CHAINAGE	FINISHED SURFACE	EXISTING SURFACE
0		69.422
5		68.218
10		67.956
15		67.7
20		67.099
25		66.388
30		65.636
35		64.615
40		63.479
45		62.198
50		60.957
55		59.716
60		58.663
65		57.684
70		56.801
75		56.163
80		55.512
85		54.794
90		53.926
95		52.411
100		51.927
105		52.033
110		52.913
115		54.002
120		54.816
125		55.627
130		56.456
135		57.382
140		58.399
145		59.416
150		60.383
155		61.32
160		62.256
165		63.102
170		63.947
175		64.674
180		65.149
185		65.554
190		66.225
195		66.678
200		66.989
205		67.277
210		67.58
215		68.122
220		68.351
225		68.337
230		68.077
235		67.527
240		66.73
245		65.835
250		64.878
255		64.038
260		63.032
265		62.024
270		60.741
275		59.42
280		58.165
285		56.98
290		56.003
295		55.193
300		53.446
305		52.472
310		53.144
315		52.816
320		52.579
325		52.45
330		52.318
335		52.241
340		52.169
345		52.054
350		51.459
355		50.002
360		49.69
363.922		49.529

SECTION 2

Horizontal scale 1:1000
Vertical scale 1:1000



DATUM -11.0

CHAINAGE	FINISHED SURFACE	EXISTING SURFACE
0		65.75
5		66.582
10		67.345
15		68.177
20		67.952
25		68.616
30		69.242
35		69.59
40		70.028
45		70.358
50		70.585
55		70.879
60		71.123
65		71.19
70	71.043	71.419
75	70.54	71.153
80	70.454	70.854
85		70.533
90		70.038
95		69.396
100		68.535
105	67.63	67.675
110		66.775
115		65.876
120	64.965	65.012
125	63.92	64.116
130	63.303	63.218
135	62.501	62.315
140	61.642	61.408
145	60.784	60.604
150		59.772
155		58.936
160		58.09
165		57.184
170		56.321
175		55.371
180		54.685
185		54.29
190		53.87
195		53.373
200	53.17	52.841
205	55.071	52.091
210	56.818	51.922
215	57.406	52.283
220	57.054	53.14
225	56.91	52.838
230	56.843	52.768
235	56.742	52.664
240	54.69	52.582
245	53.004	52.527
250		52.438
255		52.327
260		51.486
265		50.125
270	49.769	
273.439	49.656	

SECTION 1

Horizontal scale 1:1000
Vertical scale 1:1000

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

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

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

REV	DATE	DESCRIPTION	INT
A	03-03-23	COUNCIL ISSUE	JB

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Robin Russell & ASSOCIATES PTY. LTD.
BENNETT + BENNETT

DRAWING TITLE

BULK EARTHWORKS
SECTIONS
SHEET 01

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

MUS Pty Ltd T/As
Mortons-Urban Solutions
ABN 39 116 375 065

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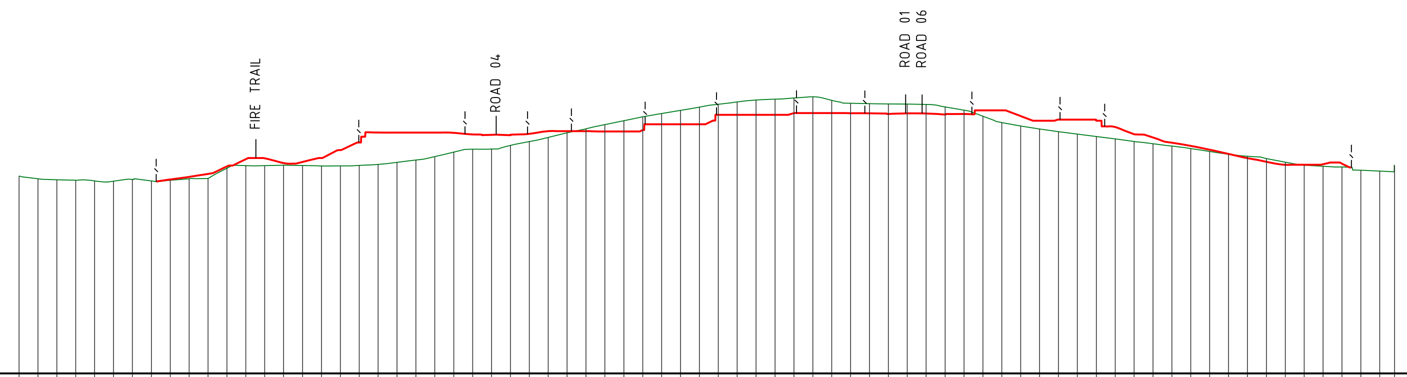
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Tel 07 5571 1099

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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER	REV
41901-01-051	A

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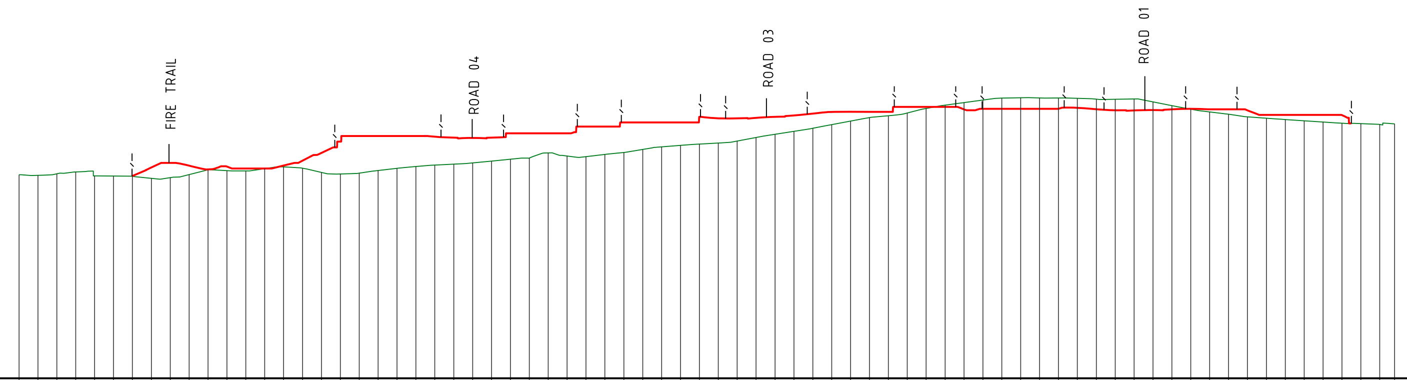


DATUM -11.0

CHAINAGE	FINISHED SURFACE	EXISTING SURFACE
0		41.229
5		40.492
10		40.23
15		40.102
20		39.95
25		39.841
30		40.33
35		39.928
40	40.316	40.103
45	40.993	40.503
50	41.79	40.552
55	43.764	43.299
60	45.694	43.98
65	45.925	43.969
70	44.69	44.066
75	44.942	43.986
80	46	43.878
85	48.087	43.917
90	50.1	44.019
95	52.714	44.295
100	52.7	44.86
105	52.7	45.441
110	52.7	46.357
115	52.645	47.536
120	52.265	48.297
125	52.12	48.345
130	52.018	49.351
135	52.387	50.345
140	53.1	51.43
145	53.1	52.677
150	53.1	53.718
155	53	54.822
160	53	55.863
165	53.4	56.898
170	54.9	57.759
175	54.9	58.6
180	54.9	59.467
185	57.4	60.223
190	57.4	60.82
195	57.4	61.33
200	57.4	61.539
205	57.878	61.863
210	57.9	62.152
215	57.9	61.285
220	57.846	60.476
225	57.82	60.377
230	57.636	60.295
235	57.814	60.248
240	57.756	60.143
245	57.497	59.503
250	57.631	58.635
255	58.6	57.041
260	58.6	55.396
265	57.091	54.434
270	55.85	53.697
275	56.15	52.988
280	56.15	52.26
285	55.85	51.704
290	54.203	51.042
295	52.293	50.361
300	51.401	49.77
305	50.022	49.127
310	49.231	48.478
315	48.18	47.743
320	47.063	47.018
325	45.947	46.454
330	44.985	45.85
335	44.2	44.904
340	44.2	44.101
345	44.346	43.798
350	44.508	43.599
355		42.751
360		42.53
363.922		44.086

SECTION 6

Horizontal scale 1:1000
Vertical scale 1:1000

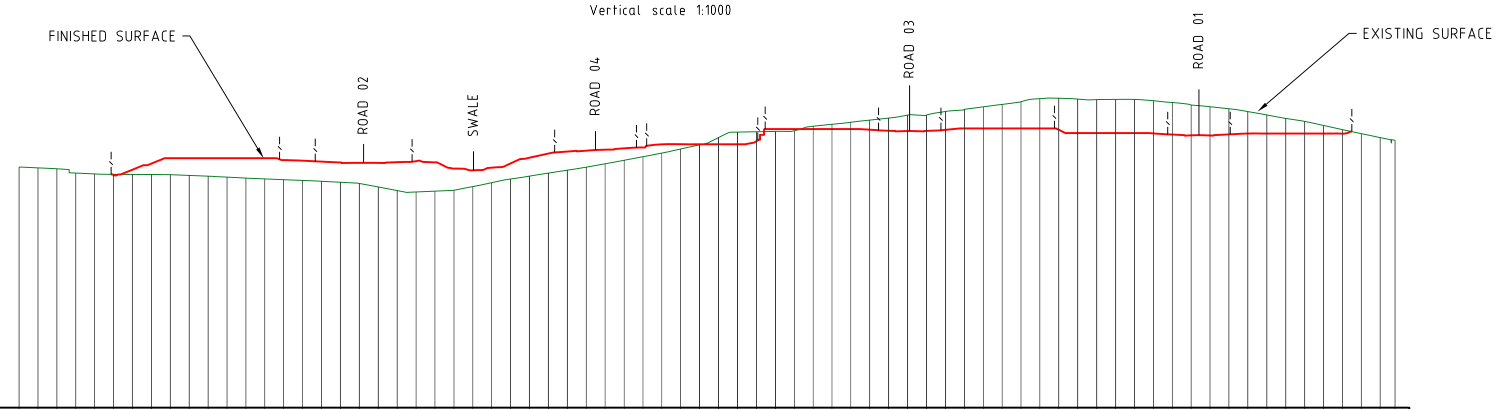


DATUM -11.0

CHAINAGE	FINISHED SURFACE	EXISTING SURFACE
0		42.868
5		42.694
10		43.117
15		43.595
20		42.561
25		42.524
30	42.543	42.469
35	44.77	41.907
40	46	42.086
45	45.236	42.883
50	44.262	44.155
55	45.016	43.924
60	44.5	43.862
65	44.5	44.454
70	45.289	44.941
75	46.583	44.578
80	48.63	43.465
85	51.6	43.057
90	53.1	43.266
95	53.1	43.98
100	53.1	44.551
105	53.1	45.033
110	52.932	45.396
115	52.662	45.66
120	52.606	45.999
125	52.665	46.473
130	53.8	46.956
135	53.8	47.287
140	53.8	48.643
145	53.8	47.792
150	55.6	47.647
155	55.6	48.223
160	56.7	48.752
165	56.7	49.552
170	56.7	50.252
175	56.7	50.638
180	58.2	50.978
185	57.787	51.253
190	57.794	51.776
195	57.897	52.71
200	58.166	53.558
205	58.553	54.345
210	59.037	55.152
215	59.496	56.101
220	59.5	57.055
225	59.5	57.968
230	59.5	58.451
235	60.8	59.183
240	60.8	60.389
245	60.8	61.246
250	60.156	61.923
255	60.3	62.599
260	60.3	63.122
265	60.3	63.22
270	60.3	63.17
275	60.309	63.171
280	60.6	63.082
285	60.162	62.868
290	59.961	62.824
295	59.872	62.892
300	59.958	62.126
305	60.153	61.142
310	60.309	60.196
315	60.158	59.469
320	60.15	58.857
325	59.89	58.179
330	58.7	57.825
335	58.7	57.441
340	58.7	57.126
345	58.7	56.811
350	58.645	56.495
355		56.386
360		56.166
363.922		56.298

SECTION 5

Horizontal scale 1:1000
Vertical scale 1:1000



DATUM -11.0

CHAINAGE	FINISHED SURFACE	EXISTING SURFACE
0		52.682
5		52.468
10		52.207
15		51.076
20		50.852
25	50.573	50.738
30	51.979	50.721
35	53.591	50.703
40	55	50.633
45	55	50.442
50	55	50.242
55	55	49.999
60	55	49.744
65	55	49.508
70	54.5	49.319
75	54.356	49.124
80	54.099	48.902
85	53.876	48.64
90	53.783	48.325
95	53.762	47.406
100	53.954	46.455
105	54.218	46.063
110	53.912	46.295
115	52.24	46.545
120	51.807	47.494
125	52.49	48.544
130	53.616	49.51
135	55.141	50.269
140	56.239	51.057
145	56.772	51.829
150	57.004	52.656
155	57.247	53.539
160	57.621	54.474
165	57.848	55.422
170	58.7	56.371
175	58.7	57.444
180	58.7	58.565
185	58.7	60.463
190	58.7	61.925
195	59.521	62.011
200	62.7	62.087
205	62.7	62.283
210	62.7	63.458
215	62.7	63.989
220	62.7	64.532
225	62.53	65.108
230	62.281	65.646
235	62.186	66.388
240	62.236	66.391
245	62.499	67.359
250	62.9	67.919
255	62.9	68.597
260	62.9	69.223
265	62.9	69.957
270	62.9	70.759
275	62.509	70.867
280	61.65	70.645
285	61.65	70.494
290	61.65	70.565
295	61.65	70.547
300	61.566	70.209
305	61.25	69.73
310	61.05	69.082
315	61.025	68.626
320	61.285	68.071
325	61.55	67.343
330	61.55	66.444
335	61.55	65.548
340	61.55	64.754
345	61.55	63.661
350	61.55	62.56
355		61.51
360		60.469
363.922		59.773

SECTION 4

Horizontal scale 1:1000
Vertical scale 1:1000

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

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

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

REV	DATE	DESCRIPTION	INT
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT + BENNETT

DRAWING TITLE

BULK EARTHWORKS
SECTIONS
SHEET 02

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination
MUS Pty Ltd T/As:
Mortons-Urban Solutions
ABN: 39 116 375 065
mortons@urbansolutions.net.au
www.urbansolutions.net.au
Tel 07 5571 1099
Postal Address
PO Box 2484
Southport QLD 4215
Gold Coast Office
Suite 9, 19 Short St
Southport QLD 4215

DESIGNED RB	DRAWN EMH	
APPROVED (signature)	RPEQ 4706	DATE 03-03-23

DRAWING NUMBER 41901-01-052 REV A

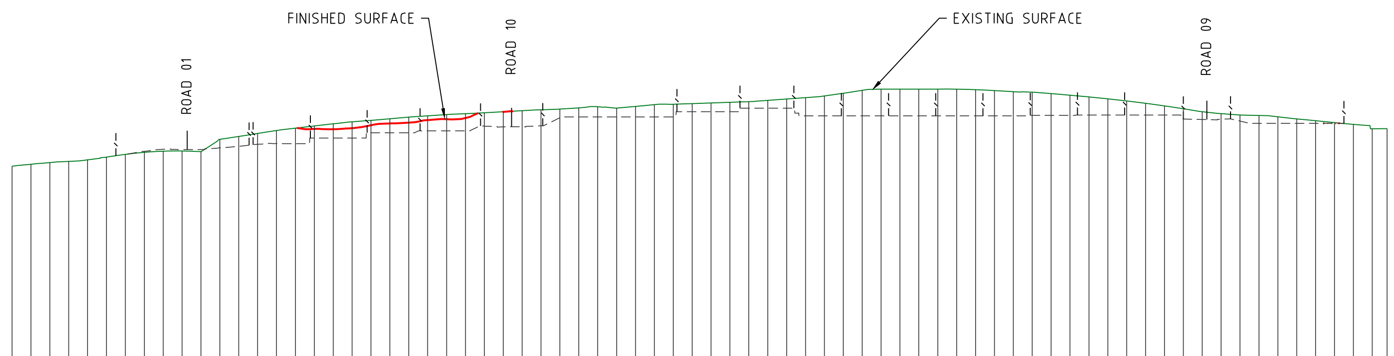
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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



CHAINAGE	FUTURE SURFACE	FINISHED SURFACE	EXISTING SURFACE
0			40.35
5			40.857
10			41.302
15			41.628
20			42.027
25			42.729
30			43.475
35	44.27		44.069
40	44.808		44.312
45	44.766		44.354
50	44.767		44.202
55	45.184		47.453
60	45.617		48.216
65	46.142		49.01
70	46.354		49.796
75	46.3		50.429
80	47.8	50.211	51.013
85	47.8	50.137	51.589
90	47.8	50.441	52.092
95	49.2	51.189	52.49
100	49.2	51.666	52.914
105	49.2	51.891	53.334
110	49.7	52.56	53.673
115	49.7	52.796	54.004
120	49.7	53.107	54.258
125	50.965		54.503
130	50.754	54.744	54.772
135	50.786		55.068
140	51.043		55.288
145	53.167		55.462
150	53.4		55.8
155	53.4		56.111
160	53.4		55.749
165	53.4		56.165
170	53.4		56.647
175	53.4		56.769
180	54.8		56.928
185	54.8		57.088
190	54.8		57.27
195	55.7		57.451
200	55.7		57.773
205	55.7		58.138
210	53.7		58.504
215	53.7		58.965
220	53.7		59.667
225	53.7		60.441
230	53.7		60.76
235	53.7		60.75
240	53.7		60.75
245	53.7		60.75
250	53.7		60.734
255	53.7		60.628
260	53.7		60.382
265	53.7		60.02
270	53.8		59.964
275	53.8		59.618
280	53.8		59.161
285	53.9		58.671
290	53.9		58.151
295	53.9		57.599
300	53.9		57.047
305	53.9		56.272
310	52.85		55.507
315	52.725		54.778
320	52.782		54.258
325	52.299		53.906
330	51.7		53.77
335	51.7		53.416
340	51.7		52.875
345	51.7		52.356
350	51.7		51.904
355			51.402
360			50.242
363.922			50.277

SECTION 7

Horizontal scale 1:1000
Vertical scale 1:1000

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

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

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

REV	DATE	DESCRIPTION	INT
A	03-03-23	COUNCIL ISSUE	JB

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Robin Russell & ASSOCIATES PTY. LTD.
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DRAWING TITLE

BULK EARTHWORKS
SECTIONS
SHEET 03

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

MUS Pty Ltd T/As:
Mortons-Urban Solutions
ABN: 39 116 375 065
mortons@urbansolutions.net.au
www.urbansolutions.net.au
Tel 07 5571 1099

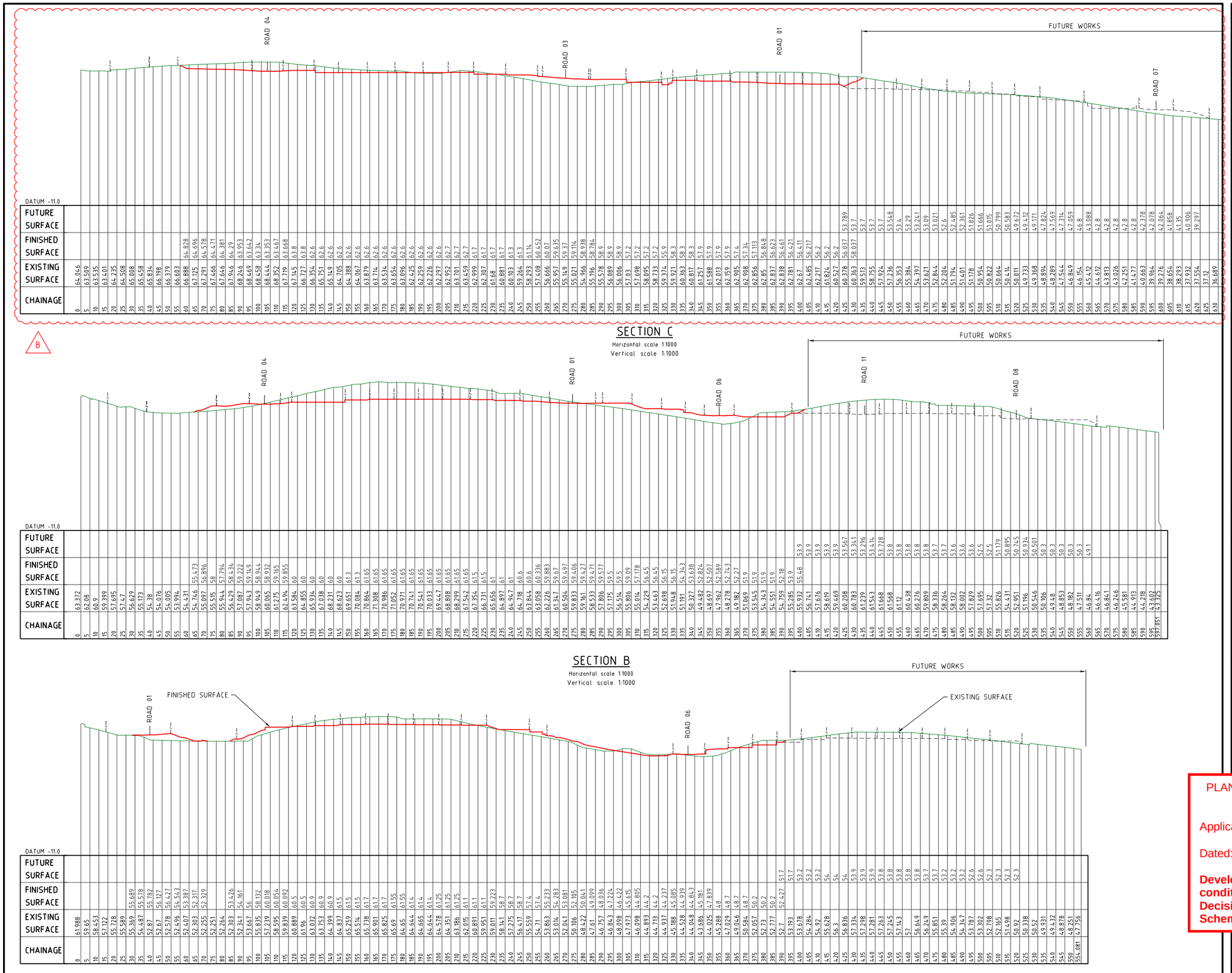
Postal Address
PO Box 2484
Southport QLD 4215

Gold Coast Office
Suite 9, 19 Short St
Southport QLD 4215

DESIGNED RB	DRAWN EMH	
APPROVED	RPEQ 4706	DATE 03-03-23

DRAWING NUMBER 41901-01-053 REV A

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B

SECTION C

Horizontal scale 1:1000
Vertical scale 1:1000

SECTION B

Horizontal scale 1:1000
Vertical scale 1:1000

SECTION A

Horizontal scale 1:1000
Vertical scale 1:1000

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PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

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

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

REV	DATE	DESCRIPTION	INT
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A	03-03-23	COUNCIL ISSUE	JB

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DRAWING TITLE

BULK EARTHWORKS
SECTIONS
SHEET 04

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

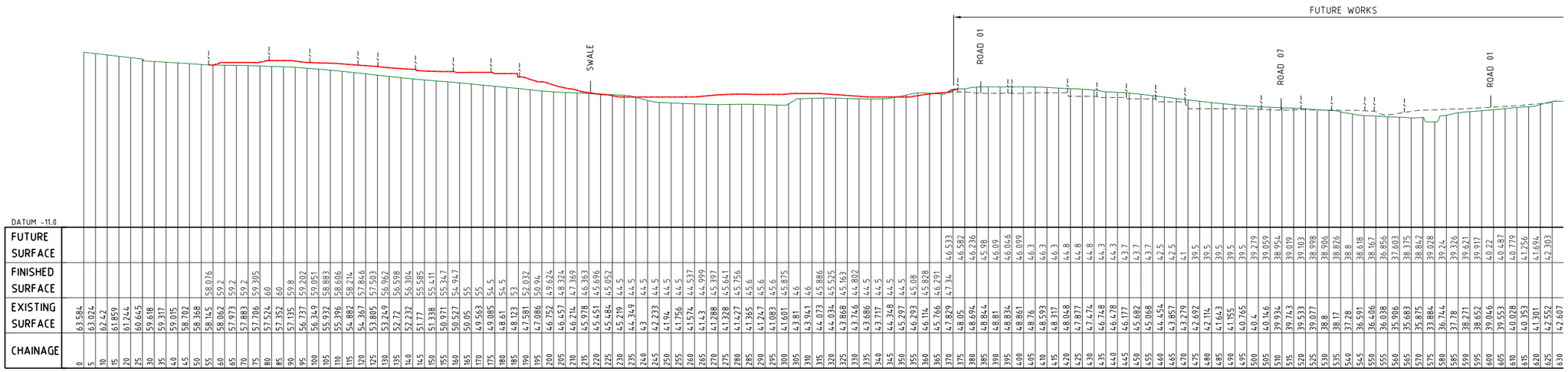
Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

www.urbansolutions.net.au
Tel 07 5571 1099
Gold Coast Office
Suite 9, 19 Short St
Southport QLD 4215

DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER: 41901-01-054
REV: B

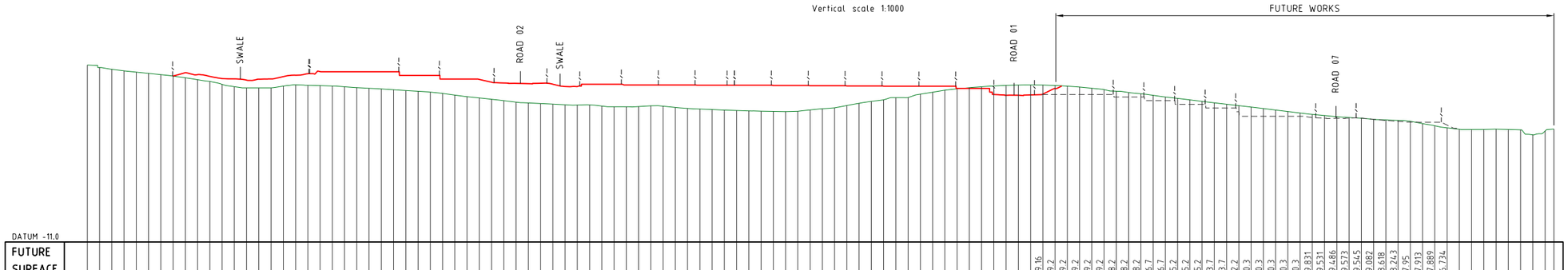


CHAINAGE	FUTURE SURFACE	FINISHED SURFACE	EXISTING SURFACE
0			63.584
5			63.024
10			62.42
15			61.859
20			61.244
25			60.645
30			59.618
35			59.317
40			59.015
45			58.702
50			58.368
55			58.145
60		58.076	58.062
65		59.2	57.973
70		59.2	57.883
75		59.2	57.706
80		59.305	57.524
85		60	57.352
90		59.8	57.135
95		59.202	56.737
100		59.051	56.349
105		58.883	55.932
110		58.606	55.396
115		58.214	54.882
120		57.846	54.367
125		57.503	53.805
130		56.962	53.249
135		56.598	52.72
140		56.304	52.232
145		55.585	51.77
150		55.411	51.338
155		55.347	50.971
160		54.947	50.527
165		55	50.05
170			49.563
175		54.5	49.085
180		54.5	48.61
185		53	48.123
190		52.032	47.581
195		50.94	47.086
200		49.624	46.752
205		48.324	46.457
210		47.369	46.214
215		46.363	45.978
220		45.696	45.451
225		45.052	45.484
230		44.5	45.219
235		44.5	44.349
240		44.5	43
245		44.5	42.233
250		44.5	41.94
255		44.5	41.756
260		44.537	41.574
265		44.999	41.43
270		45.397	41.288
275		45.641	41.328
280		45.756	41.427
285		45.6	41.365
290		45.6	41.247
295		45.6	41.083
300		45.875	41.601
305		46	43.81
310		46	43.941
315		45.886	44.073
320		45.525	44.034
325		45.163	43.868
330		44.802	43.746
335		44.5	43.686
340		44.5	43.717
345		44.5	44.348
350		44.5	45.297
355		45.08	46.293
360		45.828	46.114
365		46.291	45.766
370	46.533	47.34	47.829
375	46.582		48.05
380	46.236		48.694
385	45.98		48.844
390	46.09		48.81
395	46.046		48.824
400	46.099		48.861
405	46.3		48.76
410	46.3		48.593
415	46.3		48.317
420	44.8		48.048
425	44.8		47.877
430	44.8		47.474
435	44.3		46.748
440	44.3		46.478
445	43.7		46.177
450	43.7		45.682
455	43.7		45.068
460	42.5		44.454
465	42.5		43.857
470	41		43.279
475	39.5		42.692
480	39.5		42.114
485	39.5		41.643
490	39.5		41.155
495	39.5		40.765
500	39.279		40.4
505	39.059		40.146
510	38.954		39.934
515	39.019		39.743
520	39.103		39.533
525	38.998		39.077
530	38.906		38.8
535	38.826		38.17
540	38.8		37.28
545	38.618		36.591
550	38.167		36.406
555	36.856		36.038
560	37.603		35.906
565	38.375		35.683
570	38.842		35.875
575	39.028		33.884
580	39.24		36.744
585	39.326		37.78
590	39.621		38.271
595	39.917		38.652
600	40.22		39.046
605	40.487		39.553
610	40.779		40.028
615	41.256		40.353
620	41.694		41.301
625	42.303		42.552
630			42.607

DATUM -11.0

SECTION F

Horizontal scale 1:1000
Vertical scale 1:1000

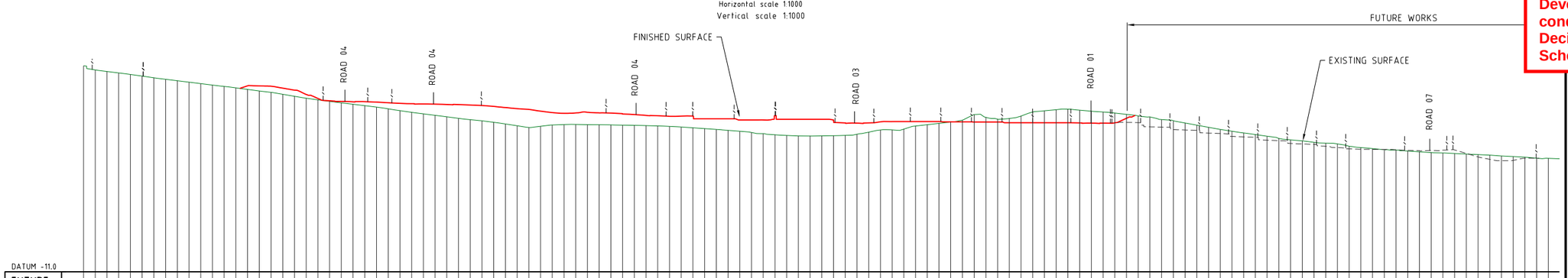


CHAINAGE	FUTURE SURFACE	FINISHED SURFACE	EXISTING SURFACE
0			76.906
5			75.166
10			74.493
15			73.867
20			73.222
25			72.533
30			71.816
35			71.146
40			70.552
45			69.91
50			69.325
55			68.7
60			68.104
65			67.489
70		68.373	66.833
75		68.344	66.177
80		68.218	65.566
85		67.379	64.749
90		66.512	63.89
95		64.735	63.078
100		62.982	62.389
105		61.981	61.733
110		61.172	61.115
115		61.547	60.509
120		61.618	59.913
125		61.464	59.277
130		61.093	58.567
135		60.904	57.959
140		60.752	57.036
145		60.593	56.416
150		60.561	55.775
155		60.397	55.107
160		60.355	54.48
165		60.179	53.918
170		59.989	53.413
175		59.534	52.779
180		59.085	52.064
185		58.617	51.307
190		58.302	50.593
195		57.556	51.081
200		56.94	51.637
205		56.628	51.813
210		56.789	51.887
215		57.059	51.8
220		56.819	51.74
225		56.723	51.68
230		56.333	51.571
235		56.127	51.492
240		55.731	51.404
245		55.578	51.267
250		55.366	51.038
255		55.412	50.791
260		55.5	50.453
265		54.3	50.098
270		54.3	49.743
275		54.3	49.37
280		53.8	48.981
285		53.8	48.456
290		53.8	47.954
295		53.6	47.464
300		54.1	47.198
305		54.1	46.995
310		54.1	46.967
315		54.1	47.001
320		53.804	47.083
325		52.512	47.223
330		52.438	47.707
335		52.535	48.583
340		52.981	49.521
345		53.1	49.539
350		53.1	49.905
355		53.1	51.208
360		53.1	51.765
365		53.1	52.338
370		52.6	52.868
375		53	53.735
380		52.9	56.108
385		52.9	54.912
390		52.9	54.133
395		52.6	54.43
400		52.6	55.464
405		52.6	57.183
410		52.6	57.716
415		52.6	58.169
420		52.6	58.392
425		52.519	57.983
430		52.46	57.54
435		52.448	57.196
440		52.566	56.746
445		52.566	56.198
450	52.758	54.521	55.518
455	52.664		55.099
460	50.858		53.951
465	50.738		53.46
470	49.678		52.482
475	49.522		51.572
480	49.363		50.66
485	48.177		48.991
490	47.988		48.25
495	46.793		47.552
500	46.57		46.841
505	46.366		45.911
510	45.15		45.297
515	44.948		44.853
520	43.75		44.228
525	43.544		43.884
530	43.322		43.562
535	42.583		42.553
540	41.975		42.006
545	41.468		41.575
550	41.3		41.164
555	41.232		40.934
560	41.222		40.526
565	41.067		40.194
570	40.82		39.85
575	40.716		39.71
580	40.756		39.471
585	40.893		39.24
590	40.982		38.999
595	38.006		38.761
600	36.988		38.425
605	36.4		38.188
610	36.532		37.906
615	37.45		37.472
620	37.45		37.409
625			37.218
630			

DATUM -11.0

SECTION E

Horizontal scale 1:1000
Vertical scale 1:1000



CHAINAGE	FUTURE SURFACE	FINISHED SURFACE	EXISTING SURFACE
0			61.242
5			60.2
10			59.476
15			58.861
20			58.332
25			57.818
30			57.304
35			56.711
40			56.039
45			55.25
50			54.538
55			53.36
60			52.393
65			51.927
70			51.927
75			51.927
80			52.636
85			53.177
90			52.965
95			52.85
100			52.699
105			52.363
110			52.008
115			51.744
120			51.48
125			51.146
130			50.831
135			50.533
140			50.175
145			49.647
150			48.968
155			48.316
160			47.797
165			47.255
170			46.684
175			46.091
180			45.754
185			45.531
190			45.294
195			45.023
200			44.905
205			44.961
210			44.501
215			44.216
220			44.221
225			44.292
230			44.593
235			44.447
240			43.947
245			43.538
250			43.289
255			43.086
260			42.834
265			42.67
270			42.507
275			42.406
280			42.323
285			42.244
290			42.364
295			42.916
300			43.394
305			43.769
310			44.696
315			45.619
320			46.393
325			47.053
330			47.941
335			47.959
340			49.34
345			50.147
350			50.951
355			51.471
360			51.967
365			52.385
370		49.203	52.705
375		48.887	52.992
380		48.899	53.018
385		49.038	53.067
390	49.16	49.353	53.077
395	49.2	51.631	52.832
400	49.2		52.582
405	49.2		52.273
410	49.2		51.752
415	49.2		51.196
420	48.2		50.557
425	48.2		50.025
430	48.2		49.519
435	46.7		48.896
440	46.7		48.203
445	45.2		47.616
450	45.2		47.02
455	45.2		46.418
460	43.7		45.82
465	42.2		45.226
470	40.3		44.658
475	40.3		44.08
480	40.3		43.482
485	40.3		42.878
490	40.3		42.263
495	40.3		41.649
500	39.831		41.09
505	39.531		40.63
510	39.486		40.171
515	39.573		39.822
520	39.545		39.503
525	39.082		39.039
530	38.618		38.839
535	38.243		38.647
540	37.95		38.255
545	37.913		37.323
550	37.889		36.441
555	36.734		35.609
560			34.984
565			34.929
570			34.957
575			35.063
580			34.922
585			34.774
590			32.755
595			34.296
598.595			35.092

DATUM -11.0

SECTION D

Horizontal scale 1:1000
Vertical scale 1:1000

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

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

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

REV	DATE	DESCRIPTION	INT
A	03-03-23	COUNCIL ISSUE	JB

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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

BULK EARTHWORKS
SECTIONS
SHEET 05

MORTONS urbansolutions
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Civil Engineering
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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER	REV
41901-01-055	A

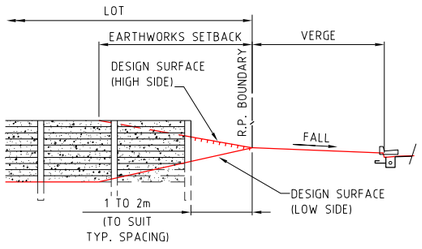
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GENERAL

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. 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.
5. ALL MATERIALS ARISING FROM RETAINING WALL CONSTRUCTION ARE TO BE COMPACTED TO FUTURE STAGES, TO LEVEL 1 OR IF DIRECTED BY THE SUPERINTENDENT SHALL BE TRUCKED TO A LICENSED TIP.

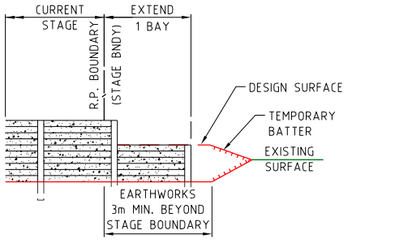
LEGEND

- EXISTING KERB (INVERT)
- EXISTING PROPERTY LINE
- 1.0 EXISTING CONTOURS
- EXISTING RETAINING WALL
- FUTURE KERB (INVERT)
- FUTURE PROPERTY LINE
- 1.0 FUTURE CONTOURS
- FUTURE RETAINING WALL
- PROPOSED KERB (INVERT)
- PROPOSED PROPERTY LINE
- 1.0 DESIGN CONTOURS
- PROPOSED SINGLE TIER RETAINING WALL
- PROPOSED TWO TIER RETAINING WALL
- PROPOSED SINGLE TIER "A" GRADE SANDSTONE BLOCK RETAINING WALL
- PL50.4 NOMINAL LOT PAD LEVEL
- RH1.0 INDICATIVE WALL HEIGHT
- DETAIL PAD FALL DIRECTION (CONTRACTOR TO ENSURE LOTS FALL TO ROAD AT 1:150 MIN. REFER DWG. 461)



TYPICAL SIDE BOUNDARY CONSTRUCTION

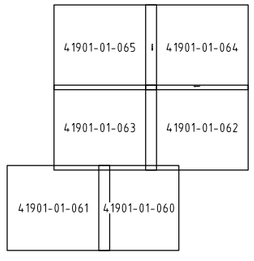
SCALE 1:100 - A1 (1:200 - A3)

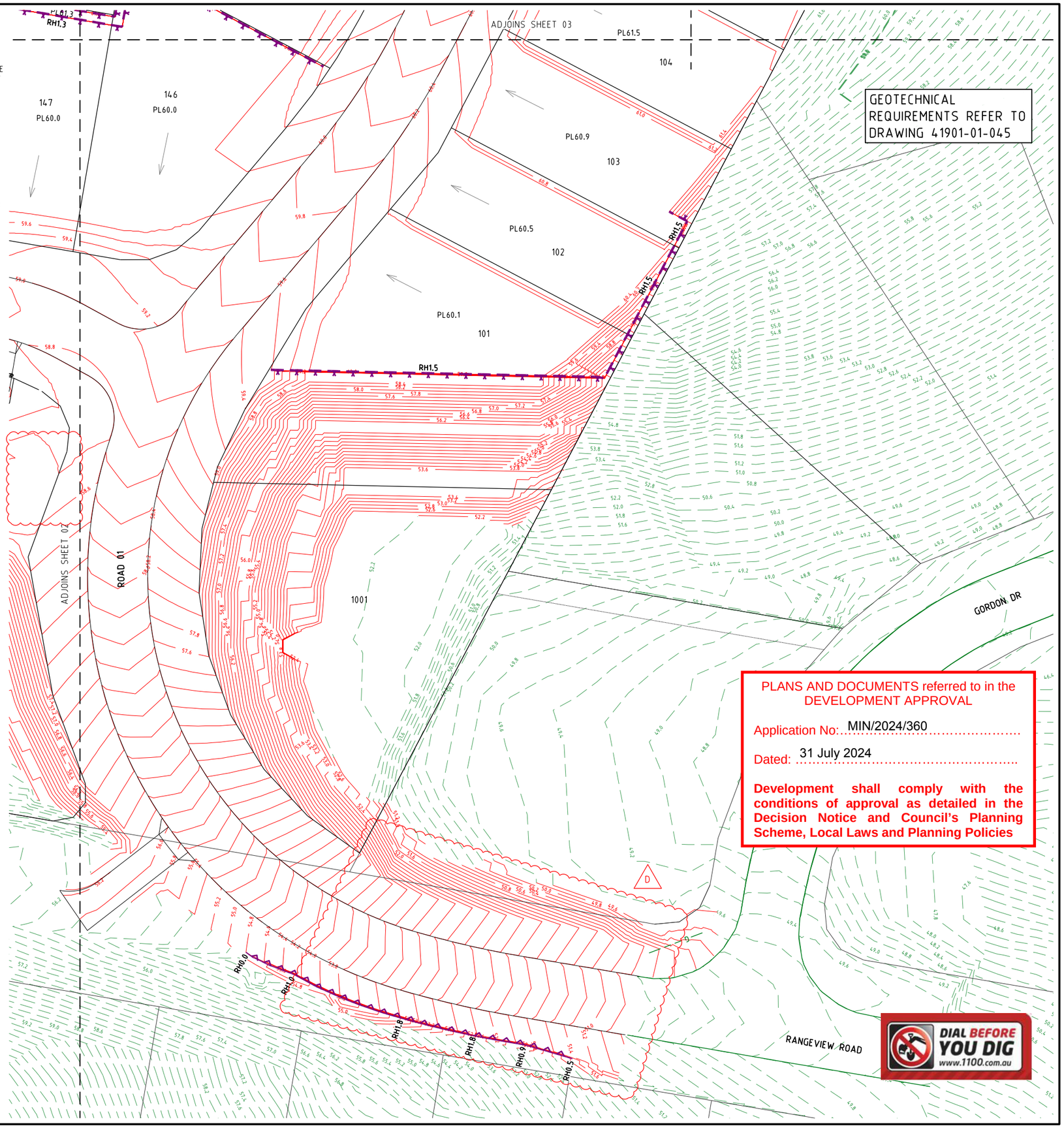


TYPICAL STAGE BOUNDARY CONSTRUCTION

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

SHEET LAYOUT





PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

DIAL BEFORE YOU DIG www.1100.com.au

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 2.5 5 7.5 10 12.5m

Scale 1:250 - A1 (1:500 - A3)

REV	DATE	DESCRIPTION	INT
D	19-06-24	PMT REMOVED, RET WALL AMENDED & CONTS REVISED	BL
C	15-04-24	E.WORKS EXTENDED TO TIE INTO EXISTING	EP
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING

Robin Russell & ASSOCIATES PTY. LTD.

BENNETT+BENNETT

DRAWING TITLE

RETAINING WALL AND DETAIL GRADING PLAN SHEET 01

MORTONS urbansolutions
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Civil Engineering
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mortons@urbansolutions.net.au
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PO Box 2484
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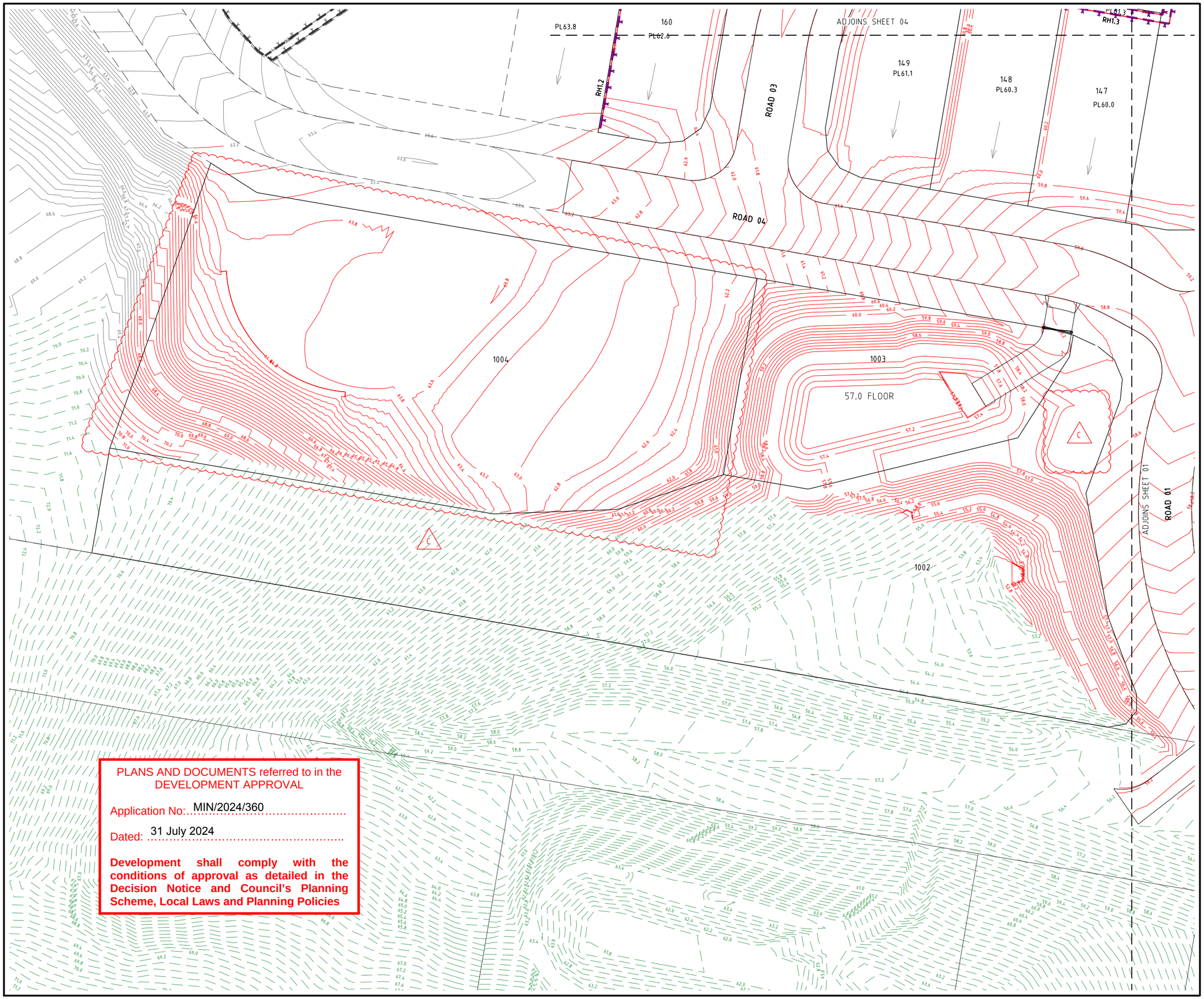
Gold Coast Office
Suite 9, 19 Short St
Southport QLD 4215

DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER 41901-01-060

REV D

F:\Autocad Client\419 - HB Land\01 - Courtney Drive\Precinct-Stage 01\Engineering Drawings\Current\41901-01-060.dwg, PLAN SHEET 01, 24/06/2024 2:31:11 PM, 1:2



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 2.5 5 7.5 10 12.5m

Scale 1:250 - A1 (1:500 - A3)

REV	DATE	DESCRIPTION	INT
C	19-06-24	PMT REMOVED & CONTOURS UPDATED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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DRAWING TITLE

RETAINING WALL
AND DETAIL GRADING PLAN
SHEET 02

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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER 41901-01-061

REV C

F:\Autocad Client\419 - HB Land\01 - Courtney Drive\Precinct-Stage 01\Engineering Drawings\Current\41901-01-060.dwg, PLAN SHEET 02, 24/06/2024 2:31:21 PM, 12

ADJOINS SHEET 06

ADJOINS SHEET 04

ROAD 01

PATTERSON CT

GORDON DR

PL59.85 114 PL57.1

PL59.85 113 PL57.1

PL59.85 112 PL57.25

PL60.0 111 PL57.4

PL60.15 110 PL58.7

PL60.15 109 PL61.1

PL61.25 108

PL61.4 107

PL61.55 106

PL61.7 105

PL61.5 104

RH1.5 PL54.35

RH1.5 PL52.85

RH0.6

RH0.4

RH1.3

A 070A

B 070A

C 070A

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 2.5 5 7.5 10 12.5m

Scale 1:250 - A1 (1:500 - A3)

REV	DATE	DESCRIPTION	INT
C	23-02-24	CONTOURS & RETAINING WALLS AMENDED-SECTIONS ADDED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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DRAWING TITLE

RETAINING WALL
AND DETAIL GRADING PLAN
SHEET 03

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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER	REV
41901-01-062	C

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ADJOINS SHEET 07

ADJOINS SHEET 02

ADJOINS SHEET 01

ADJOINS SHEET 03

ROAD 01

ROAD 03

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 2.5 5 7.5 10 12.5m

Scale 1:250 - A1 (1:500 - A3)

REV	DATE	DESCRIPTION	INT
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING

Robin Russell & ASSOCIATES PTY. LTD.

BENNETT + BENNETT

DRAWING TITLE

RETAINING WALL
AND DETAIL GRADING PLAN
SHEET 04

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Southport QLD 4215

DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER: 41901-01-063

REV: B

F:\Autocad Client\419 - HB Land\01 - Courtney Drive\Precinct-Stage 01\Engineering Drawings\Current\41901-01-060.dwg, PLAN SHEET 04, 24/06/2024 2:31:40 PM, 1:2

Padmount Transformer Infrastructure to be owned and maintained by the service provider (Energex) inclusive of any retaining structures.

REFER TO STRUCTURAL ARTS SK-01 FOR RETAINING WALL DETAILS

ADJOINS SHEET 07

ADJOINS SHEET 03

ROAD 06

ROAD 09

MACKELLAR DR

44.2 FLOOR BIO ONLY

BUND 44.8

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 2.5 5 7.5 10 12.5m

Scale 1:250 - A1 (1:500 - A3)

REV	DATE	DESCRIPTION	INT
C	11-10-23	CONTOURS & WALLS AMENDED	EP
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING

Robin Russell & ASSOCIATES PTY. LTD.

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DRAWING TITLE

RETAINING WALL AND DETAIL GRADING PLAN SHEET 05

MORTONS urbansolutions
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Civil Engineering
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Postal Address
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Southport QLD 4215

Gold Coast Office
Suite 9, 19 Short St
Southport QLD 4215

DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER	REV
41901-01-064	C

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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

ROAD 04
ROAD 03
ROAD 01
ADJOINS SHEET 04
ADJOINS SHEET 06
RH1.5
RH1.1
RH1.3
RH1.4
RH0.9
RH0.4
PL55.9
PL57.4
PL57.9
PL55.3
PL58.3
PL57.2
PL58.6
PL58.9
PL59.2
PL59.5
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164
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26

C

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 2.5 5 7.5 10 12.5m
Scale 1:250 - A1 (1:500 - A3)

REV	DATE	DESCRIPTION	INT
C	11-10-23	CONTOURS & WALLS AMENDED	EP
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT + BENNETT

DRAWING TITLE

RETAINING WALL
AND DETAIL GRADING PLAN
SHEET 06

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

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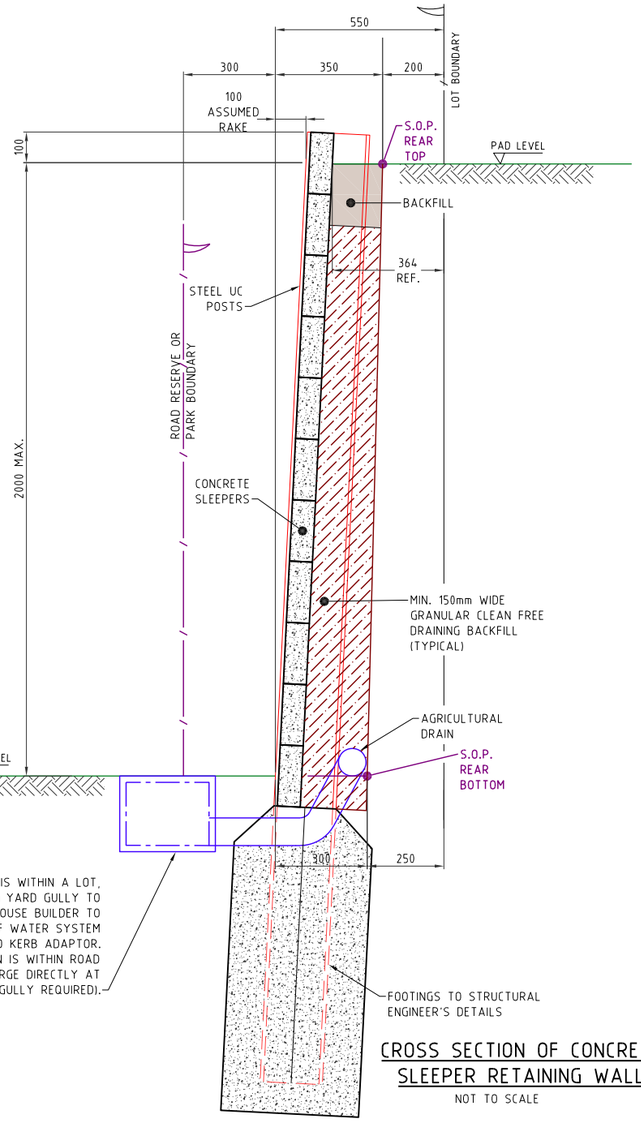
DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ	4706
		DATE	03-03-23

DRAWING NUMBER: 41901-01-065
REV: C

F:\Autocad Client\419 - HB Land\01 - Courtney Drive\Precinct-Stage 01\Engineering Drawings\Current\41901-01-060.dwg, PLAN SHEET 06, 24/06/2024 2:31:59 PM, 1:2

NOTES:

1. RETAINING WALL DETAILS ARE INDICATIVE ONLY.
2. CONTRACTOR TO ARRANGE FOR DESIGN & CONSTRUCTION OF WALLS BY RPEQ STRUCTURAL ENGINEER. CONTRACTOR TO PROVIDE STRUCTURAL CERTIFICATION OF DESIGN & FINAL CONSTRUCTION.
3. ALLOW FOR 5KPa LOADING TO WALLS EXCEPT ADJACENT TO ROADS WHICH REQUIRE A 10kPa LOADING.
4. CONTRACTOR TO CONFIRM LOCATION OF LOT BOUNDARY PRIOR TO COMMENCING WALL CONSTRUCTION.
5. THE BUILDING ON THE HIGHER SIDE OF THE RETAINING WALL MUST MAINTAIN AN OFFSET OR APPROPRIATE FOUNDATION STRUCTURES (EG. PIERS) IN ORDER TO ENSURE THE ENTIRE DEPTH OF THE RETAINING WALL IS FREE FROM THE ZONE OF INFLUENCE OF THE BUILDING/OVERBURDEN LOAD UNLESS OTHERWISE SPECIFIED BY STRUCTURAL ENGINEER.
6. STRUCTURAL ENGINEER TO DESIGN SLAB & PIER.
7. AGRICULTURAL DRAIN TO DISCHARGE TO 300x300mm STORMWATER PIT. HOUSE BUILDER TO CONNECT 300x300mm STORMWATER PIT TO ROOFWATER SYSTEM.
8. RETAINING WALL DESIGN TO ALLOW FOR ALL SERVICES (ADJACENT OR BELOW) & HAVE NO IMPACT.
9. SANDSTONE & PROPRIETARY RETAINING WALLS TO BE DESIGNED & CONSTRUCTED TO HAVE VERTICAL FACE UNLESS OTHERWISE AGREED BY THE SUPERINTENDENT.
10. ANY WALL GREATER THAN 0.9M HIGH TO INSTALL A FALL BARRIER AT THE TOP OF WALL. THE FALL BARRIER IS TO BE MAINTAINED UNTIL THE END OF THE MAINTENANCE PERIOD OR THE ASSOCIATED LOT IS SOLD BY THE DEVELOPER.
11. REFER TO LANDSCAPE ARCHITECT FOR RETAINING WALL COLOUR & FINISH.
12. * SETBACK FROM BOUNDARY TO BE:
    200mm SIDE BOUNDARY
    400mm REAR BOUNDARY
    600mm ROAD RESERVE
13. WHERE RETAINING WALLS ARE LOCATED WITHIN 2m OF A PMT SITE THE RETAINING WALL IS TO BE DESIGNED & CONSTRUCTED TO ALLOW EXCAVATION OF THE FULL PMT SITE TO A DEPTH OF 1.3m.
14. FENCE BRACKETS TO BE INSTALLED ON POSTS, NO BRACKETS 5m FROM FRONT BOUNDARY.
15. ALL FOOTINGS MUST BE A MINIMUM OF 200mm FROM PROPERTY BOUNDARY.



CROSS SECTION OF CONCRETE SLEEPER RETAINING WALL

NOT TO SCALE

RETAINING WALL COLOUR AND FACE FINISH NOTE:

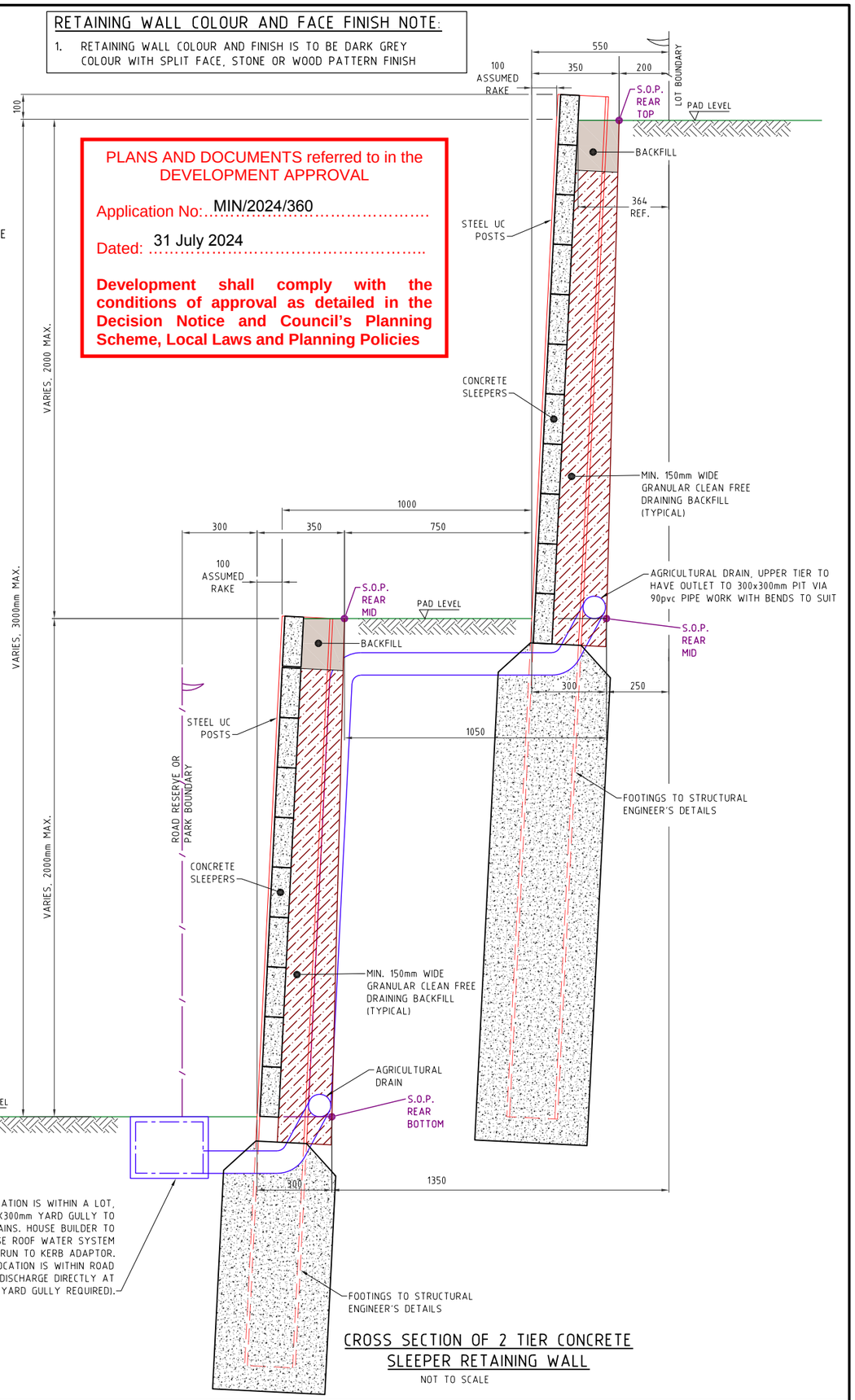
1. RETAINING WALL COLOUR AND FINISH IS TO BE DARK GREY COLOUR WITH SPLIT FACE, STONE OR WOOD PATTERN FINISH

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



CROSS SECTION OF 2 TIER CONCRETE SLEEPER RETAINING WALL

NOT TO SCALE

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

REV	DATE	DESCRIPTION	INT
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING

Robin Russell & ASSOCIATES PTY. LTD.

BENNETT + BENNETT

DRAWING TITLE

RETAINING WALL DETAILS SHEET 01

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Project Coordination
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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER: 41901-01-070
REV: B

F:\Autocad Client\419 - HB Land\01 - Courtney Drive\Precinct-Stage 01\Engineering Drawings\Current\41901-01-070.dwg, DETAILS SHEET 01, 24/06/2024 2:32:03 PM, 1:2

NOTES:

1. RETAINING WALL DETAILS ARE INDICATIVE ONLY.
2. CONTRACTOR TO ARRANGE FOR DESIGN & CONSTRUCTION OF WALLS BY RPEQ STRUCTURAL ENGINEER. CONTRACTOR TO PROVIDE STRUCTURAL CERTIFICATION OF DESIGN & FINAL CONSTRUCTION.
3. ALLOW FOR 5KPa LOADING TO WALLS EXCEPT ADJACENT TO ROADS WHICH REQUIRE A 10kPa LOADING.
4. CONTRACTOR TO CONFIRM LOCATION OF LOT BOUNDARY PRIOR TO COMMENCING WALL CONSTRUCTION.
5. THE BUILDING ON THE HIGHER SIDE OF THE RETAINING WALL MUST MAINTAIN AN OFFSET OR APPROPRIATE FOUNDATION STRUCTURES (EG; PIERS) IN ORDER TO ENSURE THE ENTIRE DEPTH OF THE RETAINING WALL IS FREE FROM THE ZONE OF INFLUENCE OF THE BUILDING/OVERBURDEN LOAD UNLESS OTHERWISE SPECIFIED BY STRUCTURAL ENGINEER.
6. STRUCTURAL ENGINEER TO DESIGN SLAB & PIER.
7. AGRICULTURAL DRAIN TO DISCHARGE TO 300x300mm STORMWATER PIT. HOUSE BUILDER TO CONNECT 300x300mm STORMWATER PIT TO ROOFWATER SYSTEM.
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11. REFER TO LANDSCAPE ARCHITECT FOR RETAINING WALL COLOUR & FINISH.
12. * SETBACK FROM BOUNDARY TO BE:
    200mm SIDE BOUNDARY
    400mm REAR BOUNDARY
    600mm ROAD RESERVE
13. WHERE RETAINING WALLS ARE LOCATED WITHIN 2m OF A PMT SITE THE RETAINING WALL IS TO BE DESIGNED & CONSTRUCTED TO ALLOW EXCAVATION OF THE FULL PMT SITE TO A DEPTH OF 1.3m.
14. FENCE BRACKETS TO BE INSTALLED ON POSTS, NO BRACKETS 5m FROM FRONT BOUNDARY.
15. AL.L FOOTINGS MUST BE A MINIMUM OF 200mm FROM PROPERTY BOUNDARY.

BOULDER WALL SPECIFIC NOTES

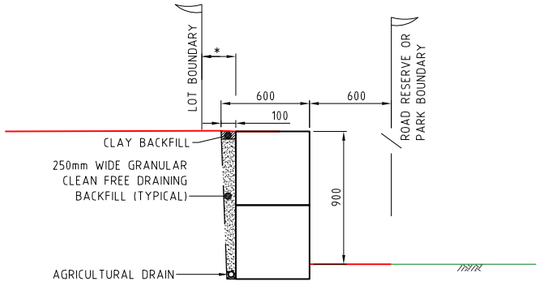
1. BOULDER WALL INDICATIVE ONLY. CONTRACTOR TO CONSTRUCT TO STRUCTURAL ENGINEERS SPECIFICATION
2. BOTTOM ROW OF BOULDERS TO BE KEYED INTO NATURAL GROUND 0.2m (MINIMUM)
3. CONCRETE FOOTING IF DIRECTED BY STRUCTURAL ENGINEER.
4. BOTTOM ROW OF BOULDERS TO BE LAID HORIZONTAL OR TO SLOPE INTO THE FACE OF THE BATTER

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

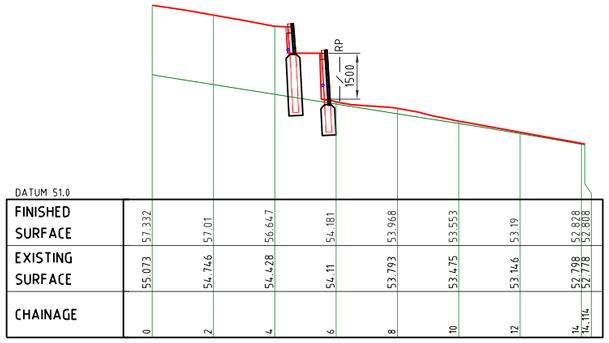
Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



GRADE 'A' SANDSTONE BLOCK WALL DETAIL

NOT TO SCALE



DATUM 51.0								
FINISHED SURFACE	57.332	57.01	56.647	54.181	53.968	53.553	53.19	52.828 / 52.808
EXISTING SURFACE	55.073	54.746	54.428	54.11	53.793	53.475	53.146	52.798 / 52.778
CHAINAGE	0	2	4	6	8	10	12	14 / 14.114

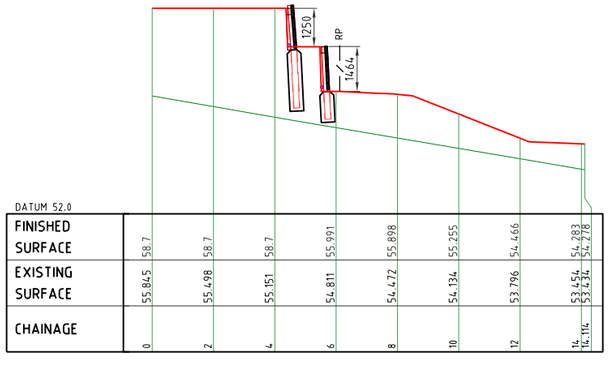
LONGITUDINAL SECTION C

B



DATUM 52.0								
FINISHED SURFACE	58.7	58.23	57.437	54.419	54.325	54.225	53.843	53.446 / 53.438
EXISTING SURFACE	55.456	55.054	54.736	54.418	54.087	53.748	53.41	53.067 / 53.047
CHAINAGE	0	2	4	6	8	10	12	14 / 14.114

LONGITUDINAL SECTION B



DATUM 52.0								
FINISHED SURFACE	58.7	58.7	58.7	55.991	55.898	55.255	54.466	54.283 / 54.278
EXISTING SURFACE	55.845	55.498	55.151	54.811	54.472	54.134	53.796	53.454 / 53.434
CHAINAGE	0	2	4	6	8	10	12	14 / 14.114

LONGITUDINAL SECTION A

Horizontal scale 1:100
Vertical scale 1:100

RETAINING WALL LOT 110 SECTIONS

0 1 2 3 4 5m

Horiz. Scale 1:100 - A1 (1:200 - A3)

0 1 2 3 4 5m

Vert. Scale 1:100 - A1 (1:200 - A3)

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

REV	DATE	DESCRIPTION	INT
B	23-02-24	LOT 110 RETAINING WALL SECTIONS ADDED	BL
A	01-08-23	COUNCIL ISSUE	EP

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING

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BENNETT+BENNETT

DRAWING TITLE

RETAINING WALL DETAILS SHEET 02

MORTONS urbansolutions
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DESIGNED	RB	DRAWN	EP
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER: 41901-01-070A

REV: B

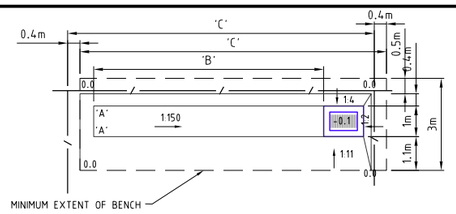
F:\Autocad Client\419 - HB Land\01 - Courtney Drive\Precinct-Stage 01\Engineering Drawings\Current\41901-01-070.dwg, DETAILS SHEET 02, 24/06/2024 2:32:04 PM, 1:2

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

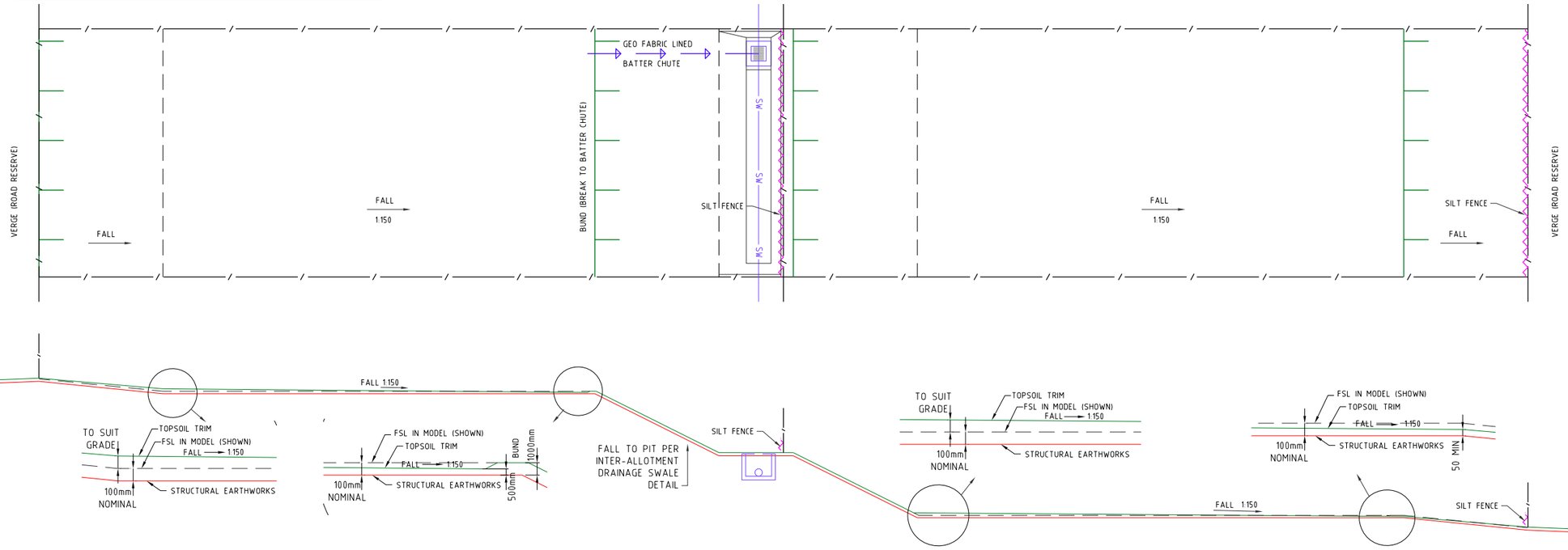
Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



LOT WIDTH 'C'	HEIGHT 'A'	LENGTH 'B'
10	-0.050	7.500
12.5	-0.033	10.000
14	-0.023	11.500
16	-0.01	13.500
18	0.0	15.000
20	0.0	15.000

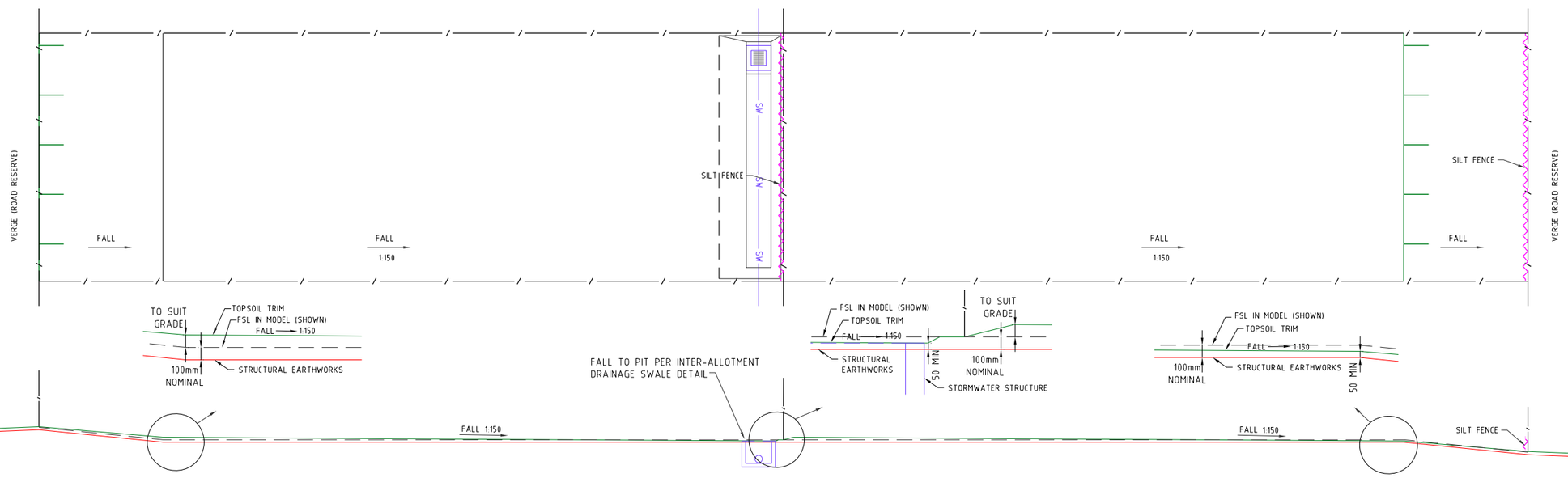
INTER-ALLOTMENT DRAINAGE SWALE

NOTE: GRADING OCCURS WITHIN MODEL, NO ADDITIONAL DEPRESSION OF PIT SURFACE LEVEL REQUIRED.



TYPICAL TOPSOIL TRIM (BENCHED LOTS)

NOT TO SCALE



TYPICAL TOPSOIL TRIM (NON BENCHED LOTS)

NOT TO SCALE

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

REV	DATE	DESCRIPTION	INT
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING

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BENNETT+BENNETT

DRAWING TITLE

FINAL TRIM DETAILS SHEET 01

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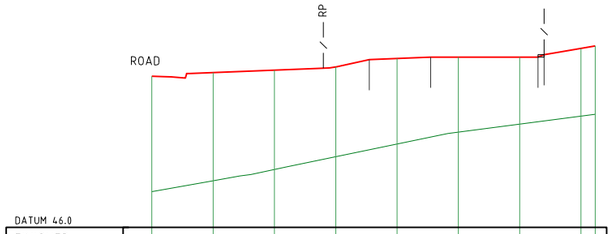
Postal Address
PO Box 2484
Southport QLD 4215

Gold Coast Office
Suite 9, 19 Short St
Southport QLD 4215

DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ	4706
DATE	03-03-23		

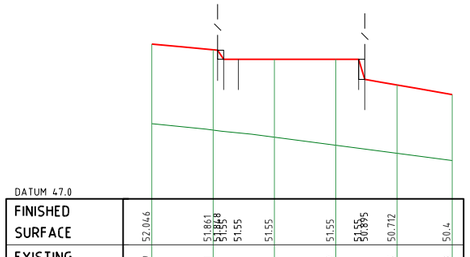
DRAWING NUMBER	REV
41901-01-071	A

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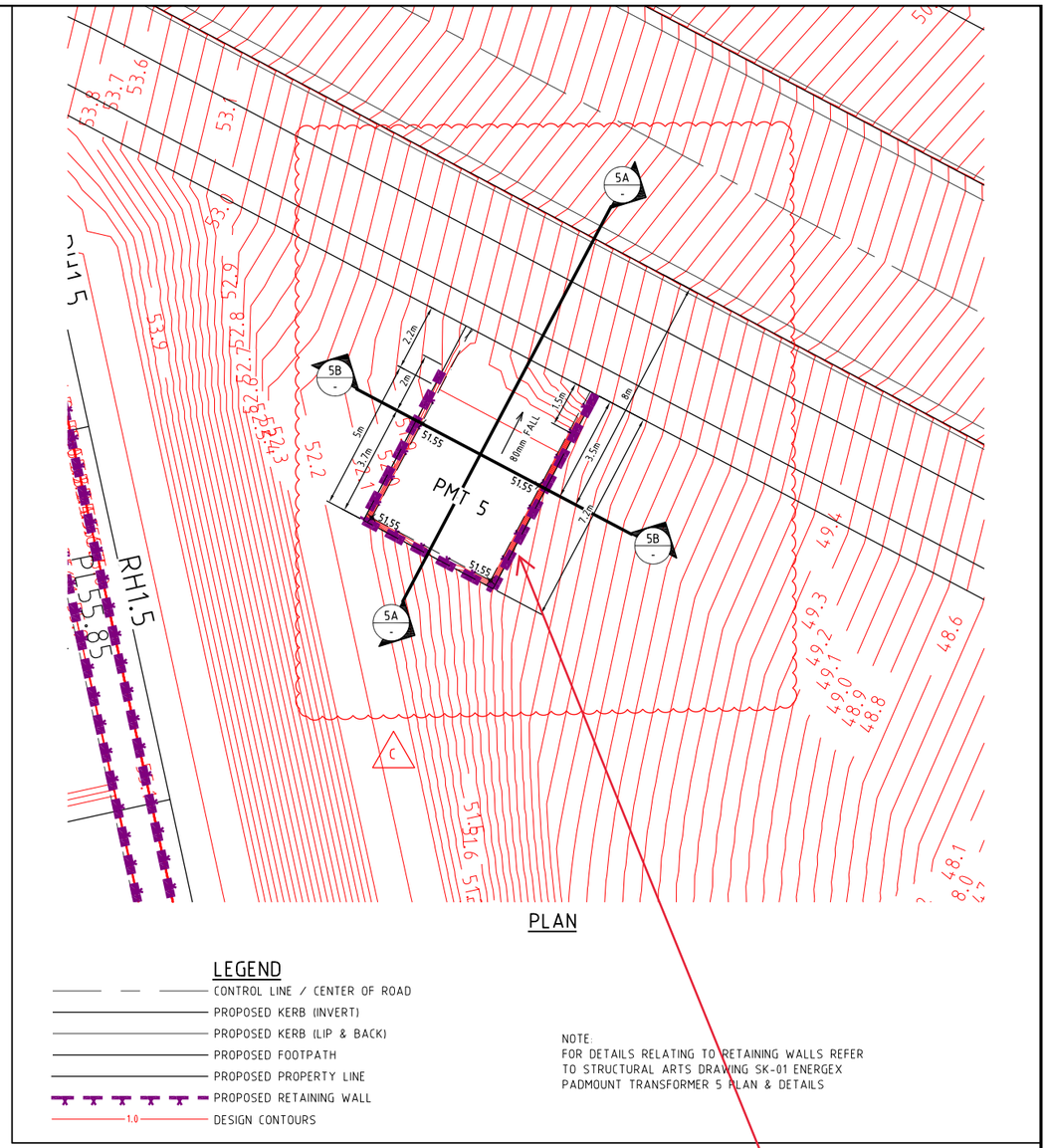
DATUM 46.0													
FINISHED SURFACE	50.925	51.046	51.126	51.231	51.47	51.506	51.55	51.55	51.55	51.55	51.55	51.836	51.915
EXISTING SURFACE	4.7.164	4.7.517	4.7.885	4.8.301		4.8.715		4.9.103		4.9.364		4.9.625	4.9.686
CHAINAGE	0	2	4	6	7.10	8	9.10	10	12	12.80	12.88	14	14.463

SECTION 5A
SCALE: 1:100
1:100



DATUM 47.0													
FINISHED SURFACE	52.046	51.861	51.838	51.55	51.55	51.55	51.55	51.55	50.895	50.712	50.4		
EXISTING SURFACE	49.449	49.241		49.01		48.747		48.485		48.248			
CHAINAGE	0	2	2.35	2.83	4	6	6.95	8	9.797				

SECTION 5B
SCALE: 1:100
1:100



PLAN

LEGEND

- CONTROL LINE / CENTER OF ROAD
- PROPOSED KERB (INVERT)
- PROPOSED KERB (LIP & BACK)
- PROPOSED FOOTPATH
- PROPOSED PROPERTY LINE
- PROPOSED RETAINING WALL
- 1.0 DESIGN CONTOURS

NOTE:
FOR DETAILS RELATING TO RETAINING WALLS REFER TO STRUCTURAL ARTS DRAWING SK-01 ENERGEX PADMOUNT TRANSFORMER 5 PLAN & DETAILS

Padmount Transformer Infrastructure to be owned and maintained by the service provider (Energex) inclusive of any retaining structures.

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 1 2 3 4 5m
Scale 1:100 - A1 (1:200 - A3)

REV	DATE	DESCRIPTION	INT
C	01-12-23	LEVELS AMENDED & ADDED	EP
B	27-11-23	DIMENSION DETAILS ADDED	BL
A	01-08-23	COUNCIL ISSUE	EP

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT+BENNETT

DRAWING TITLE

PADMOUNT SECTIONS
PADMOUNT 5
SHEET 01

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DESIGNED	RB	DRAWN	EP
APPROVED		RPEQ 4706	DATE 03-03-23

DRAWING NUMBER 41901-01-076
REV C

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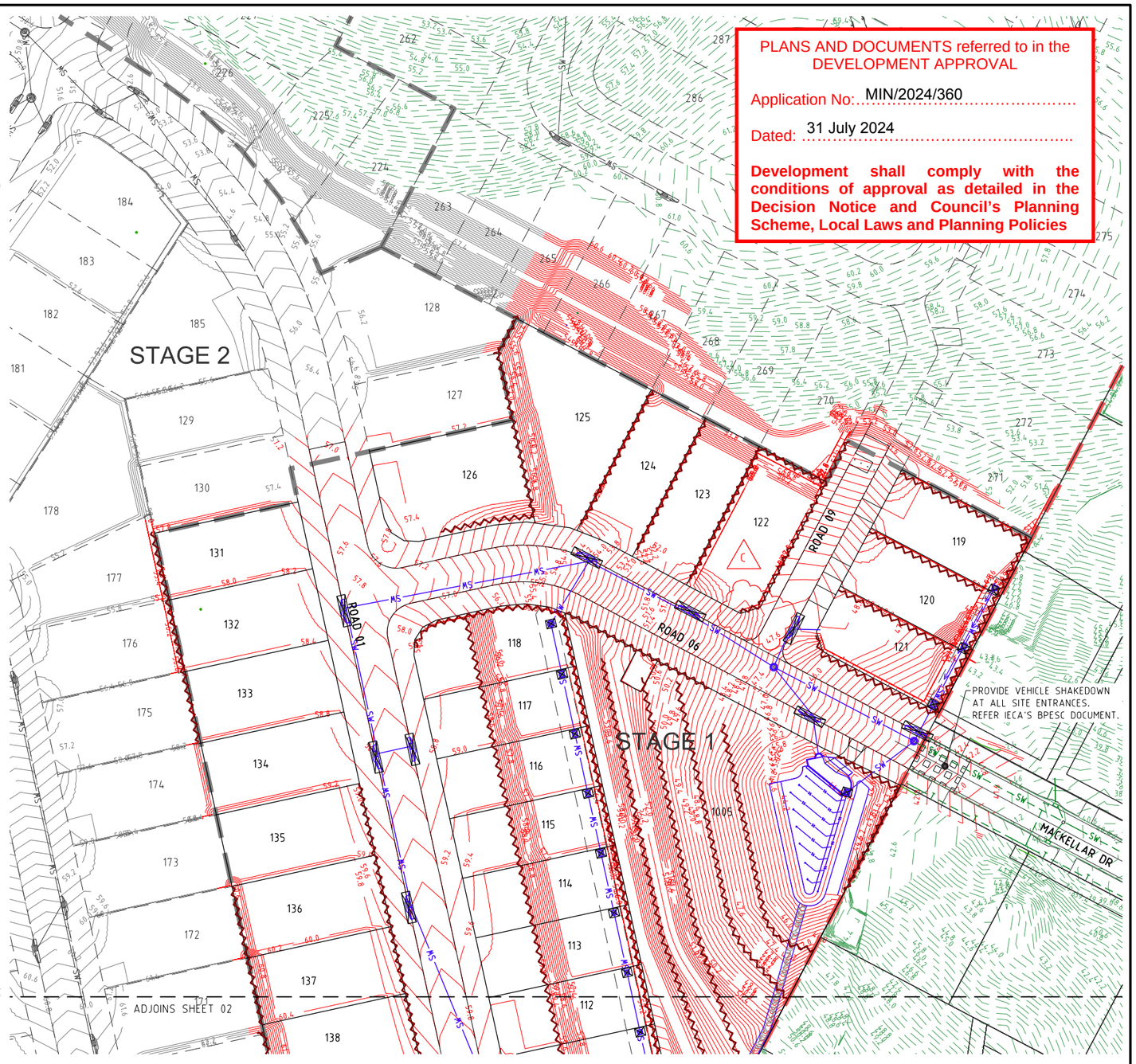
SEDIMENT AND EROSION

1. THE EROSION & SEDIMENT CONTROL DEVICES SHOWN ON THESE DRAWINGS ARE INDICATIVE & PROVIDED FOR SUBMISSION TO LOCAL AUTHORITY ONLY. NOTWITHSTANDING THE EROSION & CONTROL DEVICES SHOW ON THESE DRAWINGS, THE CONTRACTOR MUST PREPARE & FOLLOW A SITE SPECIFIC EROSION & SEDIMENT CONTROL PLAN TO MEET ALL LOCAL & STATE GOVERNMENT LEGISLATION INCLUDING BUT NOT LIMITED TO:
   a. ENVIRONMENTAL PROTECTION ACT WITH SPECIFIC REFERENCE TO PARTS S440G & S319
   b. STATE PLANNING POLICY

   PRESCRIBED WATER CONTAMINANTS (AS DEFINED IN THE ENVIRONMENTAL PROTECTION ACT 1994) MUST NOT BE RELEASED FROM THE SITE OR TO WATERS WITHIN THE SITE, OR BE LIKELY TO BE RELEASED SHOULD RAINFALL OCCUR, UNLESS ALL REASONABLE & PRACTICABLE MEASURES ARE TAKEN TO PREVENT OR MINIMISE THE RELEASE & CONCENTRATION OF CONTAMINATION. THE ESC PLAN MUST BE DESIGNED, IMPLEMENTED & MAINTAINED IN ACCORDANCE WITH "BEST PRACTICE EROSION & SEDIMENT CONTROL" PUBLISHED BY THE INTERNATIONAL EROSION CONTROL ASSOCIATION (AUSTRALASIAN CHAPTER) (IECA, 2008).
2. TO COMPLY WITH THE REQUIREMENTS OF THE EP ACT & BEST PRACTICE DESIGN, THE SEDIMENT BASINS ON THE SITE MUST BE DESIGNED & IMPLEMENTED TO ACHIEVE THE FOLLOWING:
   SEDIMENT BASINS ARE TO BE DESIGNED, IMPLEMENTED & MAINTAINED TO A STANDARD WHICH WOULD ACHIEVE AT LEAST 80% OF THE AVERAGE ANNUAL RUNOFF VOLUME OF THE CONTRIBUTING CATCHMENT TREATED (I.E. 80% HYDROLOGIC EFFECTIVENESS) TO 50MG/L TSS OR LESS & PH IN THE RANGE 6.5-8.5

   THIS WILL REQUIRE THE INSTALLATION & OPERATION OF A HIGH-EFFICIENCY SEDIMENT BASIN(S) DESIGNED IN ACCORDANCE WITH THE SPECIFICATIONS CONTAINED IN THE "BEST PRACTICE EROSION & SEDIMENT CONTROL - APPENDIX B SEDIMENT BASIN DESIGN & OPERATION" PUBLISHED BY THE INTERNATIONAL EROSION CONTROL ASSOCIATION (AUSTRALASIAN CHAPTER) (IECA, 2016, DRAFT)
3. THE EROSION & SEDIMENT CONTROL PLAN MUST BE PREPARED & CERTIFIED BY A CERTIFIED PROFESSIONAL IN EROSION & SEDIMENT CONTROL & FOLLOW THE REQUIREMENTS OUTLINED IN IECA'S BEST PRACTICE EROSION & SEDIMENT CONTROL DOCUMENT & THE QUEENSLAND URBAN DRAINAGE MANUAL.
4. PRIOR TO THE COMMENCEMENT OF WORKS ONSITE THE CONTRACTOR MUST MAKE THEMSELVES AWARE OF ALL PREVIOUS GEOTECHNICAL REPORTS & DETERMINE THE DISPERSIVE CHARACTERISTICS OF THE SOIL (INCLUDING PERFORMING ANY SOIL TESTS IF REQUIRED). THE RESULTS OF THIS REVIEW & ANY TESTS MUST BE INCLUDED IN THE CONTRACTOR'S EROSION & 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 & 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 & PUBLIC HOLIDAYS) & AT ALL TIMES REMAINS RESPONSIBLE TO:
   a) CLEAN & REPAIR CONTROL DEVICES WHENEVER THE ACCUMULATED SEDIMENT REDUCES THEIR CAPACITY BY 50%.
   b) MAINTAIN POSITIVE GRADES OF ALL PERIMETER BANKS & 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 & SEDIMENT CONTROL PLAN & 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 & 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 & 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 & IN A HERRINGBONE LAYOUT WITHIN THE ROAD VERGE.
    d) MAINTENANCE (INCLUDING FLOCCULATION IF REQUIRED & PUMP OUT) OF ALL CONSTRUCTION SEDIMENT BASINS (WHETHER EXISTING OR NEW).
    e) CLEAN OUT OF ALL GROSS POLLUTANT TRAPS, SEDIMENT FOREBAYS & ALL OTHER PERMANENT SEDIMENT CONTROL DEVICES AT BOTH ON & OFF MAINTENANCE.
11. CONTRACTOR TO CONFIRM THE EXTENTS OF REQUIRED GRASSING TREATMENTS WITH THE SUPERINTENDENT AT LEAST 7 DAYS PRIOR TO FINAL TRIMMING.
12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT GRASSING STRIKE RATES ARE ACHIEVED AT THE ON & OFF MAINTENANCE INSPECTIONS IN ACCORDANCE WITH COUNCIL REQUIREMENTS. THIS INCLUDES THE SUPPLY & INSTALLATION OF ANY REQUIRED CHEMICAL/FERTILISER AMELIORATION TO ACHIEVE THE SPECIFIED GRASS STRIKE RATES.
13. GEOFABRIC LINING OF CHANNELS & 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 & LANDSCAPING OPW. CONTRACT DOCUMENTATION WILL SPECIFY WHETHER THIS IS THE CIVIL CONTRACTOR OR THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY TO SUPPLY & 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 & MAINTAINED REGULARLY
    b) REPAIRS ARE TO BE EFFECTED IMMEDIATELY.
    c) SILT AFTER RAIN IS TO BE CLEANED FROM STREETS & ALLOTMENTS IMMEDIATELY & CORRECTIVE ACTION TAKEN TO AVOID A RE-OCCURRENCE.
    d) AT OFF-MAINTENANCE & ONLY WHEN DIRECTED BY COUNCIL, REMOVE & DISPOSE OFFSITE ALL TEMPORARY EROSION & SEDIMENT CONTROL DEVICES.

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.



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

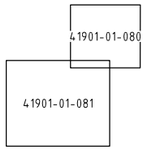
Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

LEGEND

- EXISTING PROPERTY LINE
- EXISTING KERB (INVERT)
- EXISTING STORMWATER
- EXISTING CONTOURS
- FUTURE PROPERTY LINE
- FUTURE KERB (INVERT)
- FUTURE STORMWATER
- FUTURE CONTOURS
- SITE BOUNDARY
- STAGE BOUNDARY
- PROPOSED PROPERTY LINE
- PROPOSED KERB (INVERT)
- PROPOSED STORMWATER
- 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 (AT ALL SITE ENTRANCES MIN.)
- TREES

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

SHEET LAYOUT



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PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

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

REV	DATE	DESCRIPTION	INT
C	20-12-23	STORMWATER LINE REMOVED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT+BENNETT

DRAWING TITLE

FINAL SURFACE AND SEDIMENT AND EROSION PLAN
SHEET 01

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

MUS Pty Ltd T/As:
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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER 41901-01-080 | REV C

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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

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ADJOINS SHEET 01

STAGE 2

STAGE 3

ROAD 01

ROAD 02

ROAD 03

ROAD 04

GORDON DR

RANGEVIEW ROAD

PROVIDE VEHICLE SHAKEDOWN AT ALL SITE ENTRANCES. REFER IECA'S BPESC DOCUMENT.

NORTH

0 5 10 15 20 25m

Scale 1:500 - A1 (1:1000 - A3)

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

REV	DATE	DESCRIPTION	INT
D	19-06-24	PMT REMOVED & CONTOURS UPDATED	BL
C	23-02-24	CONTOURS LOT 110 AMENDED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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BIOME WATER AND ENVIRONMENTAL CONSULTING

Robin Russell & ASSOCIATES PTY. LTD.

BENNETT + BENNETT

DRAWING TITLE

FINAL SURFACE AND SEDIMENT AND EROSION PLAN
SHEET 02

MORTONS urbansolutions
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Project Coordination

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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER	REV
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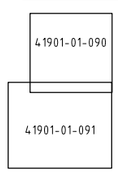
CONSTRUCTION SERVICES

1. CONSTRUCTION OF SEWER/ROOFWATER/STORMWATER/SERVICES
   EXCAVATED MATERIAL TO BE PLACED ON HIGH SIDE OF TRENCH & TO PROTECT PIPE WORK & DIRECT SURFACE MATERIAL AWAY FROM EXCAVATIONS. TOPSOIL & GRASS SEED AREAS IN ALLOTMENTS IMMEDIATELY AFTER COMPLETING THE SEWER & ROOFWATER DRAINAGE CONSTRUCTION. DEPRESS GROUND AROUND TEMPORARY FIELD INLETS TO CREATE SILT POND.
2. TRIP HAZARD
   MANHOLES OR STRUCTURES INSTALLED IN THE ROAD, FOOTPATH OR VERGE MUST MATCH NEATLY WITH NO TRIP HAZARD.
3. 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.

LEGEND

- EXISTING PROPERTY LINE
- EXISTING KERB (INVERT)
- EXISTING FOOTPATH
- RM — EXISTING RISING MAIN
- S — EXISTING SEWER
- SW — EXISTING STORMWATER
- RW — EXISTING ROOFWATER
- SS — EXISTING SUBSOIL
- W100 — EXISTING WATER
- W150 — EXISTING WATER
- W200 — EXISTING WATER
- W225 — EXISTING WATER
- W250 — EXISTING WATER
- W300 — EXISTING WATER
- EXISTING WATER CONDUIT
- PROPOSED PROPERTY LINE
- PROPOSED KERB (INVERT)
- PROPOSED FOOTPATH
- RM — PROPOSED RISING MAIN
- S — PROPOSED SEWER
- SW — PROPOSED STORMWATER
- RW — PROPOSED ROOFWATER
- SS — PROPOSED SUBSOIL
- W100 — PROPOSED WATER
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- W250 — PROPOSED WATER
- W300 — PROPOSED WATER
- PROPOSED WATER CONDUIT
- FUTURE PROPERTY LINE
- FUTURE KERB (INVERT)
- FUTURE FOOTPATH
- RM — FUTURE RISING MAIN
- S — FUTURE SEWER
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- W100 — FUTURE WATER
- W150 — FUTURE WATER
- W200 — FUTURE WATER
- W225 — FUTURE WATER
- W250 — FUTURE WATER
- W300 — FUTURE WATER
- FUTURE WATER CONDUIT
- SITE BOUNDARY
- STAGE BOUNDARY

SHEET LAYOUT



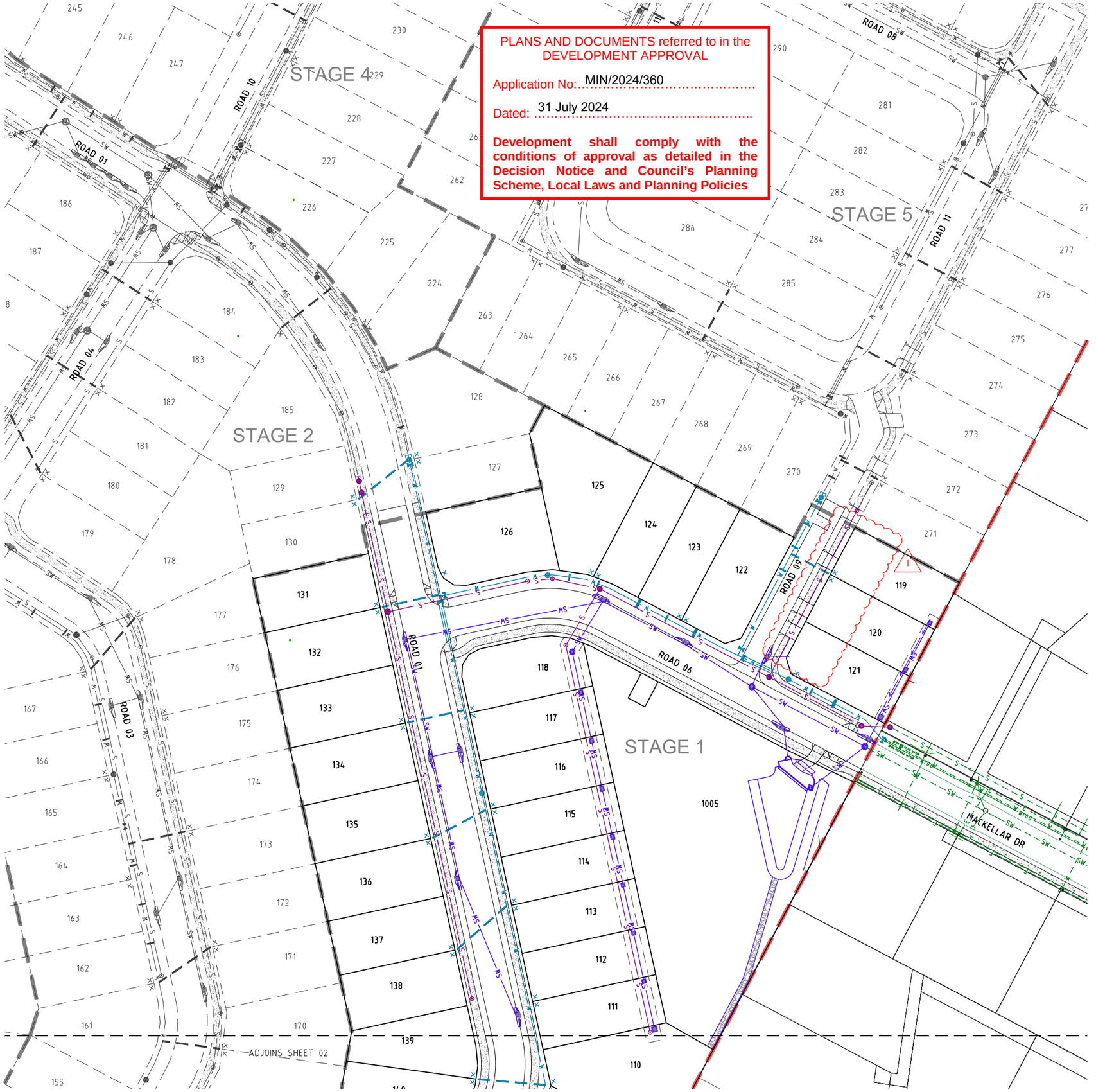
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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

REV	DATE	DESCRIPTION	INT
I	17-07-24	DRIVEWAYS AMENDED	EP
H	19-06-24	DRIVEWAYS ADDED	BL
G	17-06-24	FOOTPATH WIDTH AMENDED	EP
F	31-05-24	FOOTPATH ROAD 06 CHANGED	JB
E	20-12-23	STORMWATER LINE REMOVED	BL
D	16-10-23	WM LOT 126, FH & TS MOVED	JB
C	14-07-23	RFI AMENDMENTS	EP
B	20-03-23	STORMWATER BASIN ACCESS AMENDED	JB
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT + BENNETT

DRAWING TITLE

COMBINED SERVICES PLAN
SHEET 01

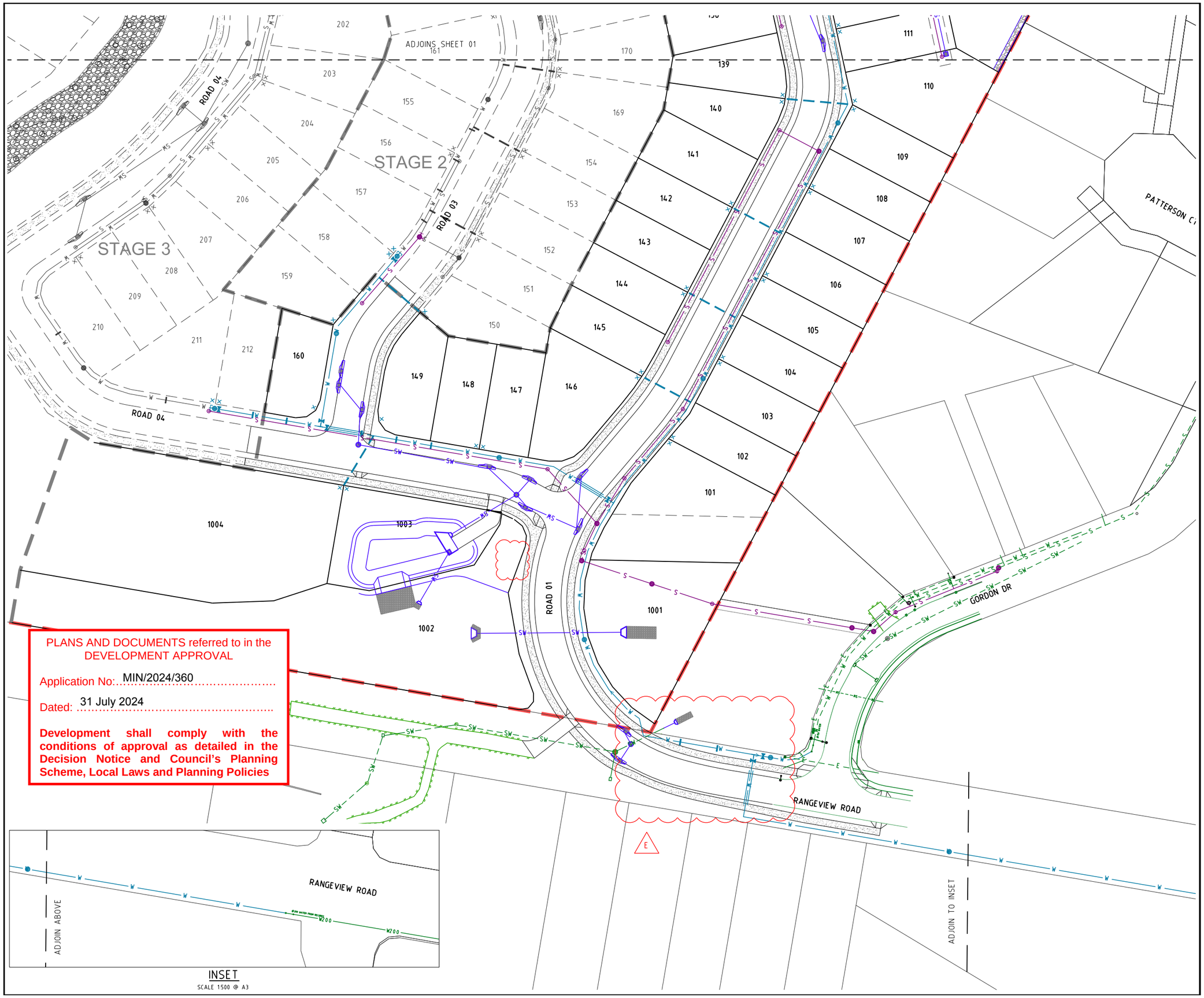
CONSTRUCTION ISSUE

MORTONS urbansolutions
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Project Coordination
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DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ	4706
DATE	03-03-23		

DRAWING NUMBER 41901-01-090 REV I

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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 5 10 15 20 25m

Scale 1:500 - A1 (1:1000 - A3)

REV	DATE	DESCRIPTION	INT
E	19-06-24	PMT REMOVED & WATER UPDATED	BL
D	06-03-24	SEWER AMENDED	MLJ
C	14-07-23	RFI AMENDMENTS	EP
B	09-03-23	STORMWATER AMENDED	JB
A	03-03-23	COUNCIL ISSUE	JB

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Robin Russell & ASSOCIATES PTY. LTD.
BENNETT+BENNETT

DRAWING TITLE

COMBINED SERVICES PLAN
SHEET 02

MORTONS urbansolutions
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Project Coordination

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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER 41901-01-091 REV E

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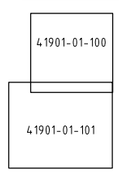
ROADWORKS

1. PAVEMENT DEPTHS
   a) THE DESIGN PAVEMENT DEPTHS ALLOWED IN EARTHWORKS CALCULATIONS ARE BASED ON THE DEPTHS SHOWN IN THE SCHEDULE OF PAVEMENT DEPTHS ON DRAWING 120.
   b) THE PAVEMENT DEPTHS GIVEN ARE DESIGN DEPTHS ONLY & MAY BE VARIED AFTER SUB-GRADE TESTS ARE TAKEN. THE CONTRACTOR IS TO PROVIDE THE SUPERINTENDENT A SUBGRADE C.B.R. REPORT PREPARED BY A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER.
   THE SUPERINTENDENT WILL COORDINATE THE AUTHORITIES APPROVAL OF THE PAVEMENT DESIGN.
   c) REFER TO DWG. 120 FOR TYPICAL ROAD SECTIONS.
2. TESTING
   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.
3. SUBSOIL DRAINS
   SUBSOIL DRAINS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE LOCAL AUTHORITY'S SPECIFICATIONS. SUBSOIL DRAINS SHALL BE PLACED UNDER ALL KERB STRUCTURES & ARE TO BE CONSTRUCTED TO A DEPTH GREATER THAN THAT OF THE INVERT OF THE DEEPEST SERVICE CROSSING.
4. MITRE DRAINS
   MITRE DRAINS ARE TO BE CONSTRUCTED ALONG THE CUT/FILL INTERFACE & SAG/LOW POINTS OF ALL ROADS. CONTRACTOR TO REQUEST DIRECTION FROM SUPERINTENDENT WHETHER TO INSTALL MITRE DRAIN AT ROCK ENCOUNTERED IN SUBGRADE. ALL MITRE DRAINS MUST BE FREE DRAINING & TIE INTO THE ADJACENT SUBSOIL DRAINS.
5. ROCK
   THE CONTRACTOR IS TO INCLUDE ROCK EXCAVATION AS PART OF THEIR RATES.
6. TURF
   1.0m TURF STRIP TO BE INSTALLED BEHIND THE BACK OF ALL KERBS. A PERPENDICULAR TURF STRIP AT MAXIMUM 10m INCREMENTS MUST BE INSTALLED TO FULL VERGE WIDTH FOR SEDIMENT & EROSION CONTROL PURPOSES.
7. KERBS
   ALL KERBS TO BE CONSTRUCTED IN ACCORDANCE WITH AUTHORITY STANDARDS.
8. PAVEMENT TIE-IN
   PAVEMENT TIE-IN TO BE IN ACCORDANCE WITH DWG. 120
9. FOOTPATH IN MACKELLAR DRIVE
   FOOTPATH EXTERNAL TO STAGE 1 WORKS (APPROX 90m) IS TO BE 1.5m WIDE. PLEASE ENSURE THAT FOOTPATHS TIE NEATLY INTO EXISTING DRIVEWAYS (x3) AND MINIMISE IMPACT TO EXISTING LANDOWNERS OF LOTS 91-93 SP174234.

LEGEND

- EXISTING KERB (INVERT)
- EXISTING KERB (LIP & BACK)
- EXISTING FOOTPATH
- EXISTING PROPERTY LINE
- EXISTING CONTOURS
- FUTURE KERB
- FUTURE FOOTPATH
- FUTURE PROPERTY LINE
- FUTURE CONTOURS
- CONTROL LINE / CENTER OF ROAD
- PROPOSED KERB (INVERT)
- PROPOSED KERB (LIP & BACK)
- PROPOSED FOOTPATH
- PROPOSED PROPERTY LINE
- SITE BOUNDARY
- STAGE BOUNDARY
- DESIGN CONTOURS
- PROPOSED CONCRETE
- 41.065 CENTRELINE CHAINAGE

SHEET LAYOUT



G

B1 BARRIER KERB & CHANNEL
B2 BARRIER KERB

REFER TO DRG. 120 FOR KERB TYPES

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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

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STAGE 4
STAGE 2
STAGE 1

TYPE 3 METAL BOLLARDS AT 1.5m CENTRES AS GCCC DRAWING 05-717

LIMIT ROADWORKS CH 499.517

LIMIT ROADWORKS CH 34.324

LIMIT ROADWORKS CH 143.995

CONSTRUCT 1.5m WIDE FOOTPATH IN ACCORDANCE WITH GCCC STD DWG 02-401 & IPWEA STD DWG RS-065

1m x 1m BIN PADS, 2 PER LOT

CONSTRUCT 3m WIDE DRIVEWAY IN ACCORDANCE WITH IPWEA STD DWG RS-049 & RS-050

CONSTRUCT PRAM RAMPS IN ACCORDANCE WITH IPWEAQ STANDARD DWG RS-090 (TYPICAL)

CONSTRUCT 2m WIDE FOOTPATH IN ACCORDANCE WITH GCCC STD DWG 02-401 & IPWEA STD DWG RS-065 (TYPICAL)

GUARD RAIL AS PER TMR STD DWG 1475. LOCATED 0.2m FROM KERB INVERT & LENGTH 30m.

SAWCUT & MATCH NEATLY TO EXISTING PAVEMENT

TRANSITION 2m FOOTPATH TO 1.5m OVER 5m

CONSTRUCT 4m WIDE 150mm THICK ACCESS DRIVEWAY FOR BASIN C, IN ACCORDANCE WITH IPWEA STD DWG RS-049 & RS-050

ROAD 01 · ROAD 02 · ROAD 06 · ROAD 07 · ROAD 08 · ROAD 09 · ROAD 10 · ROAD 11 · MACKELLAR DR · GORDON DR

ADJOINS SHEET 02

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

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

REV	DATE	DESCRIPTION	INT
H	17-07-24	DRIVEWAYS AMENDED	EP
G	19-06-24	DRIVEWAYS ADDED & LEGEND AMENDED	BL
F	17-06-24	FOOTPATH EXT TO STAGE 1 CHANGED TO 1.5m	EP
E	31-05-24	FOOTPATH ROAD 06 CHANGED	EP
D	23-02-24	CONTOURS LOT 110 AMENDED	BL
C	14-07-23	RFI AMENDMENTS	EP
B	20-03-23	DRIVEWAY ACCESS LOCATION AMENDED	JB
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

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Robin Russell & ASSOCIATES PTY. LTD.
BENNETT + BENNETT

DRAWING TITLE

ROADWORKS
PLAN
SHEET 01

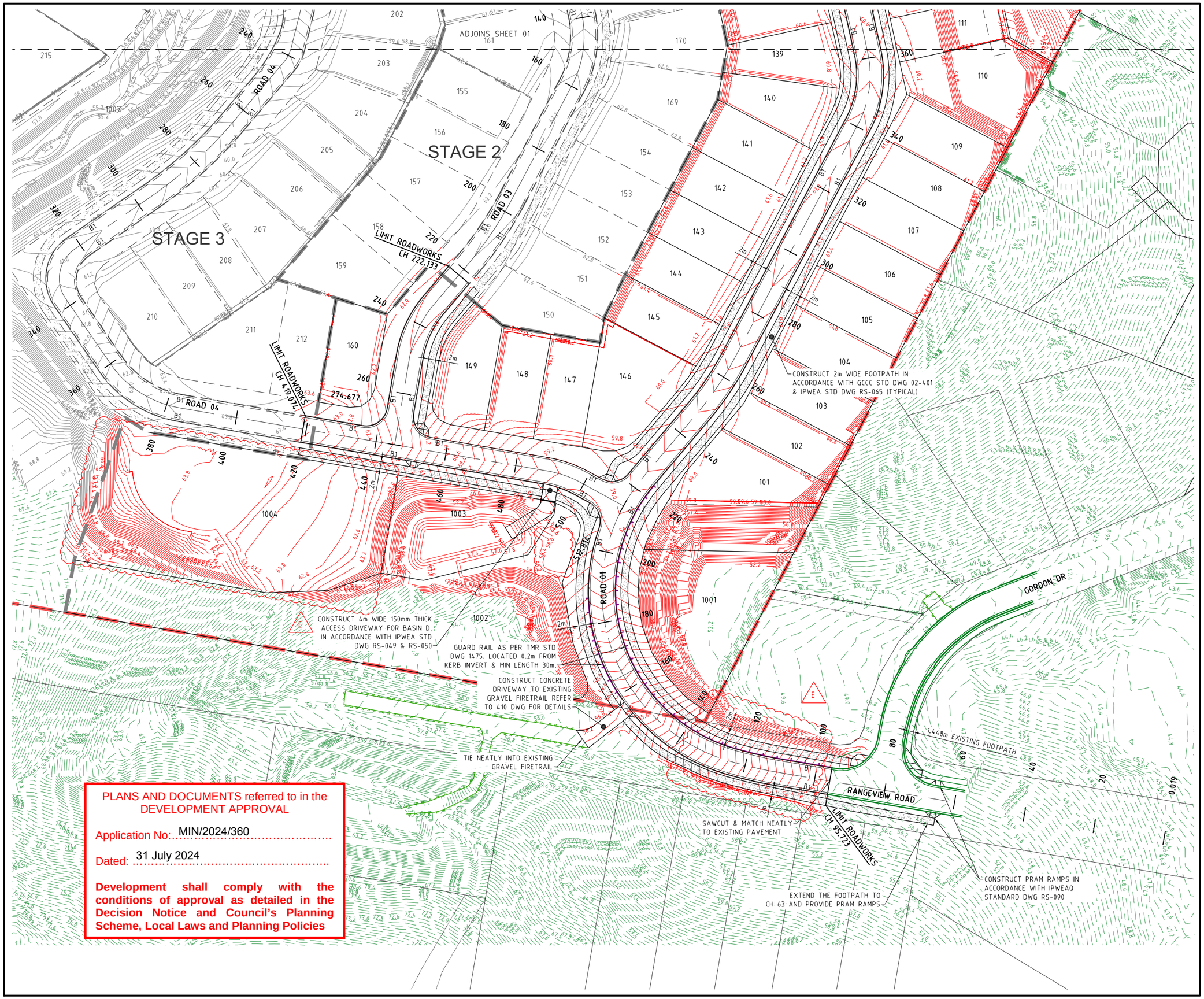
CONSTRUCTION ISSUE

MORTONS urbansolutions
Urban & Regional Planning
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Project Coordination
MUS Pty Ltd T/As
Mortons-Urban Solutions
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mortons@urbansolutions.net.au
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Southport QLD 4215

DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER 41901-01-100 | REV H

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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 5 10 15 20 25m

Scale 1:500 - A1 (1:1000 - A3)

REV	DATE	DESCRIPTION	INT
E	19-06-24	PMT REMOVED & CONTOURS UPDATED	BL
D	15-04-24	E.WORKS EXTENDED TO TIE INTO EXISTING	JB
C	23-02-24	CONTOURS LOT 110 AMENDED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING

Robin Russell & ASSOCIATES PTY. LTD.

BENNETT + BENNETT

DRAWING TITLE

ROADWORKS
PLAN
SHEET 02

MORTONS urbansolutions
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Civil Engineering
Project Coordination

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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER 41901-01-101 REV E

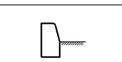
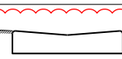
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SCHEDULE OF PAVEMENT DEPTHS

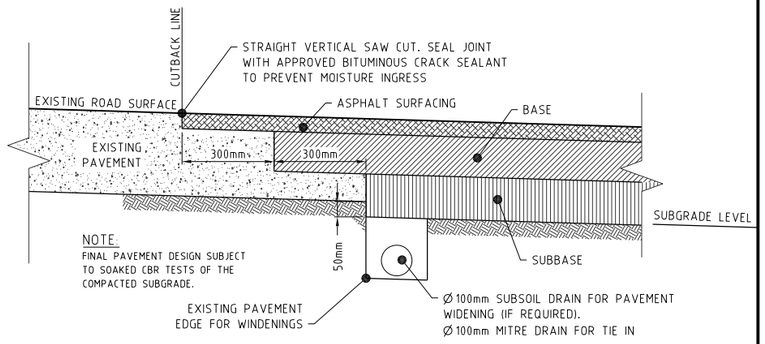
ROAD NAME	SURFACING	BASE	SUB-BASE	LOWER SUB-BASE	CLASSIFICATION	DESA OR VPD	DESIGN GUIDE
ROAD 01	25mm ASPHALT	100mm TYPE 2.1 (CBR 60)	100mm TYPE 2.3 (CBR 45)	100mm TYPE 2.5 (CBR 15)	RESIDENTIAL COLLECTOR ST	3000	GCCC TABLE 2.11
ROAD 03, 04 & 06	25mm ASPHALT	100mm TYPE 2.1 (CBR 60)	100mm TYPE 2.3 (CBR 45)	100mm TYPE 2.5 (CBR 15)	RESIDENTIAL ACCESS ST	401-750	GCCC TABLE 2.11

NOTE. THE PAVEMENT DEPTHS ARE GIVEN AS A GUIDE ONLY AND FINAL PAVEMENT DESIGN WILL BE DETERMINED AFTER CBR TESTING IS UNDERTAKEN, AND COUNCIL HAVE APPROVED THE DESIGN. PLEASE NOTE CBR10 IS MAXIMUM INSITU CBR VALUE.

SCHEDULE OF KERB TYPES

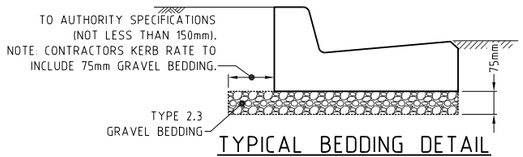
KERB TYPE	IMAGE	REFERENCE
B1		IPWEA DWG. RS-080
B2		NOTE: SUBSOIL DRAINS TO BE PLACED UNDER ALL KERBS.
CHANNEL 900		

C



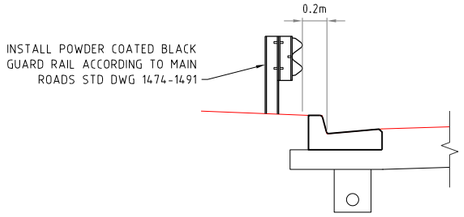
PAVEMENT WIDENING AND TIE-IN DETAIL

NOT TO SCALE



TYPICAL BEDDING DETAIL

SCALE 1:10 - A1 (1:20 - A3)



GUARDRAIL DETAIL

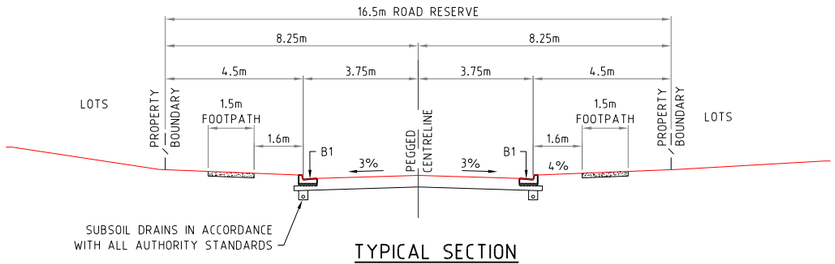
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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

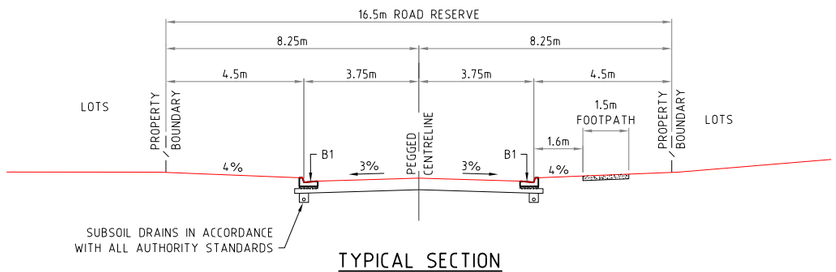
Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



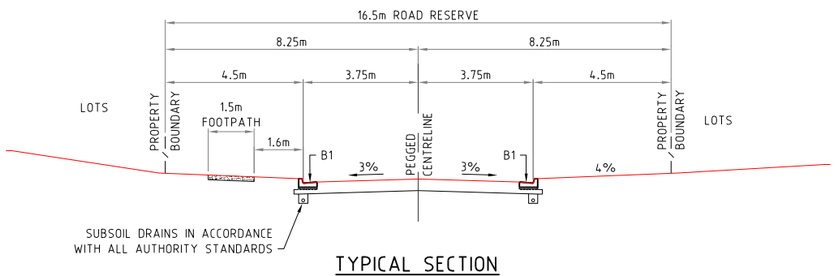
TYPICAL SECTION
7.5m ROAD-16.5m ROAD RESERVE
ROAD 01 & 04

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



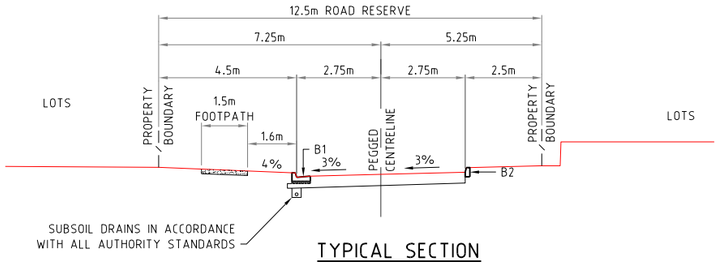
TYPICAL SECTION
7.5m ROAD-16.5m ROAD RESERVE
ROAD 04

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



TYPICAL SECTION
7.5m ROAD-16.5m ROAD RESERVE
ROAD 03 & 06

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



TYPICAL SECTION
5.5m ROAD-12.5m ROAD RESERVE
ROAD 09

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

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

0 0.1 0.2 0.3 0.4 0.5m
Scale 1:10 - A1 (1:20 - A3)
0 1 2 3 4 5m
Scale 1:100 - A1 (1:200 - A3)

REV	DATE	DESCRIPTION	INT
C	19-06-24	INVERT ADDED TO KERB LEGEND	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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DRAWING TITLE

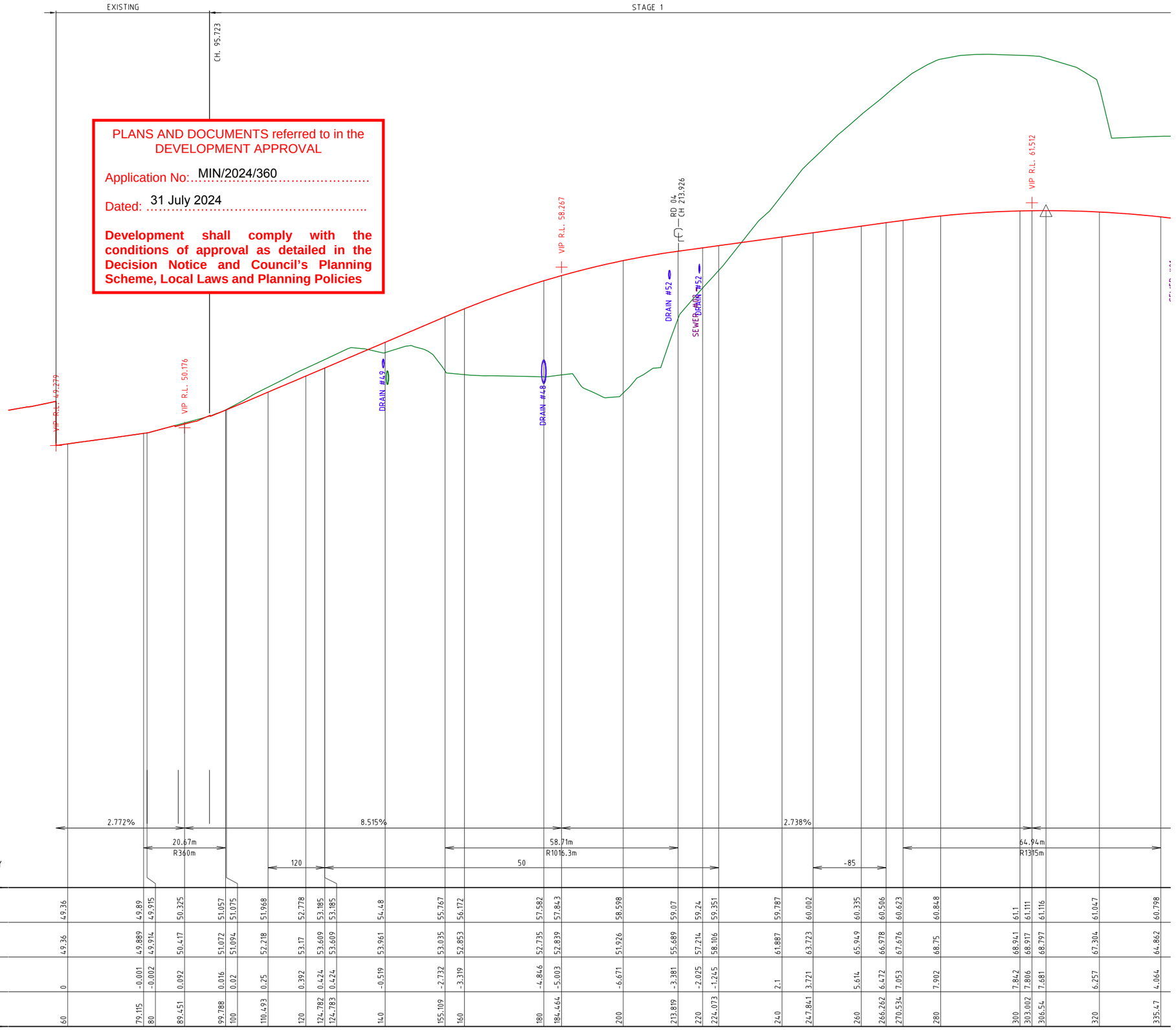
ROADWORKS DETAILS

MORTONS urbansolutions
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Civil Engineering
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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER	REV
41901-01-120	C

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LONGITUDINAL SECTION ROAD 01

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PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

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

0 1 2 3 4 5m
Vert. Scale 1:100 - A1 (1:200 - A3)

REV	DATE	DESCRIPTION	INT
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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Robin Russell & ASSOCIATES PTY. LTD.
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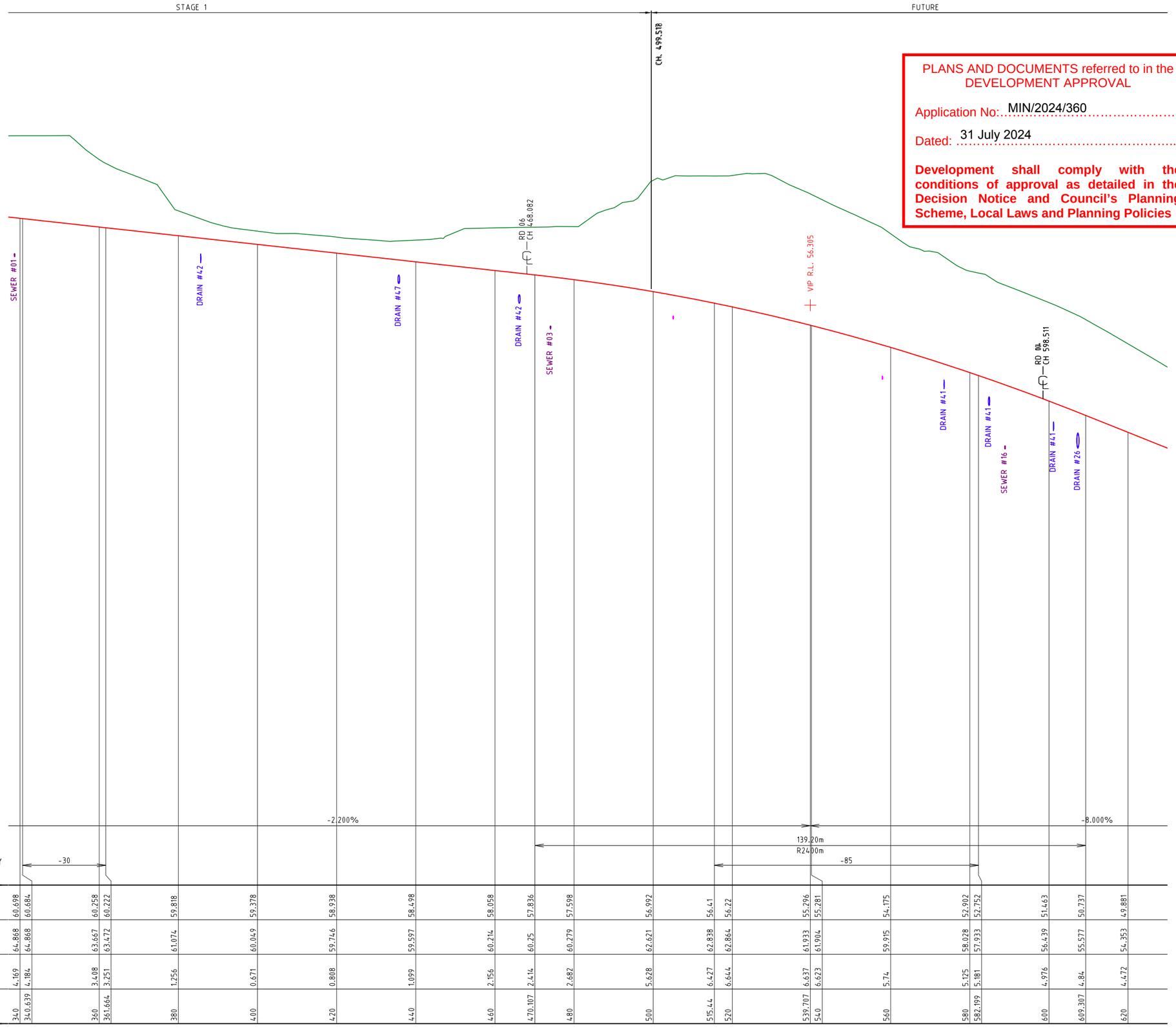
DRAWING TITLE

LONGITUDINAL SECTIONS
ROAD 01

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DESIGNED RB | DRAWN EMH
APPROVED RPEQ 4706 | DATE 03-03-23

DRAWING NUMBER 41901-01-200 | REV B



LONGITUDINAL SECTION 01

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

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

0 1 2 3 4 5m
Vert. Scale 1:100 - A1 (1:200 - A3)

REV	DATE	DESCRIPTION	INT
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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DRAWING TITLE

LONGITUDINAL SECTIONS
ROAD 01

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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER	REV
41901-01-201	B

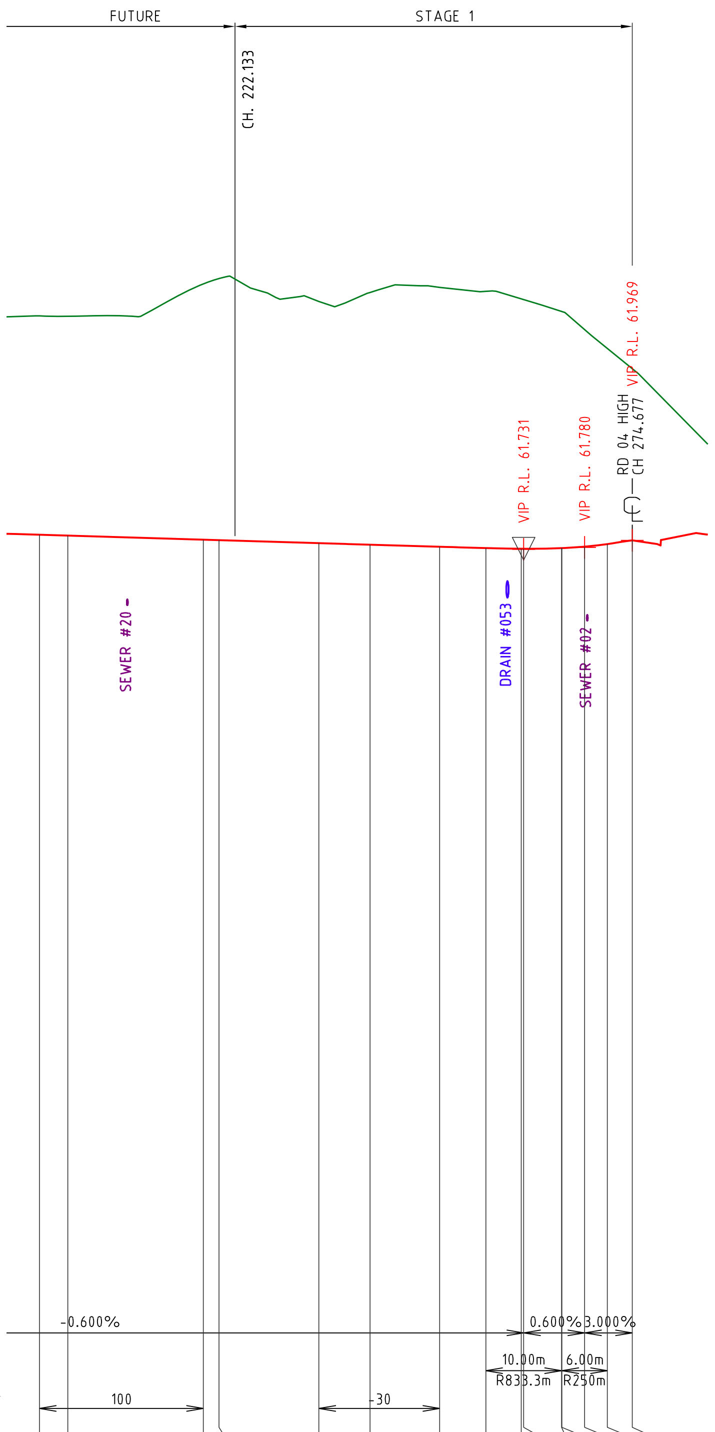
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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

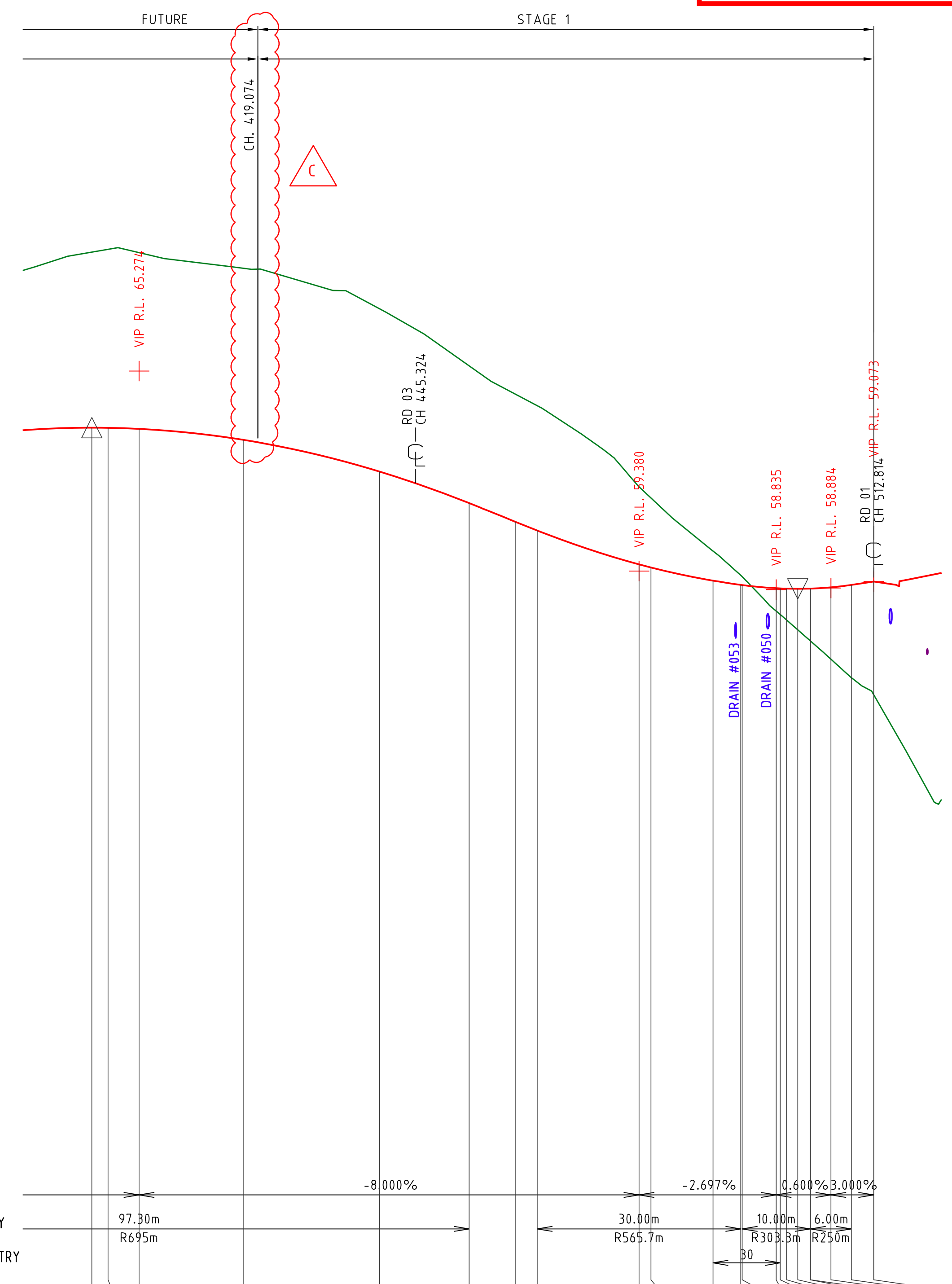
Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



CONTROL LINE LEVELS	62.115	62.093	61.985	61.973	61.894	61.853	61.798	61.761	61.746	61.746	61.761	61.762	61.798	61.87	61.969
EXISTING SURFACE	67.907	67.898	68.748	68.875	68.287	68.523	68.661	68.555	68.356	68.337	68.026	68.022	67.543	67.046	66.51
DEPTH	5.792	5.805	6.762	6.902	6.393	6.67	6.863	6.794	6.61	6.591	6.265	6.261	5.746	5.176	4.541
CHAINAGE	196.259	200	217.931	220	233.222	240	249.206	255.315	260	260.315	265.315	265.377	268.377	271.377	274.677

LONGITUDINAL SECTION ROAD 03



CONTROL LINE LEVELS	63.606	63.602	63.572	63.246	62.314	61.382	60.839	60.58	59.579	59.488	59.101
EXISTING SURFACE	68.779	68.86	68.764	68.303	67.112	65.428	64.596	64.254	61.868	61.537	59.971
DEPTH	5.173	5.258	5.192	5.057	4.799	4.046	3.757	3.674	2.289	2.049	0.87
CHAINAGE	397.611	400	404.561	420	440	453.211	460	463.234	478.234	480	489.144

CONTROL LINE LEVELS	58.976	58.97	58.877	58.871	58.864	58.86	58.865	58.866	58.902	58.974	59.073
EXISTING SURFACE	59.258	59.218	58.209	58.106	57.937	57.652	57.332	57.32	56.786	56.243	55.745
DEPTH	0.283	0.248	-0.667	-0.765	-0.927	-1.208	-1.534	-1.546	-2.116	-2.731	-3.327
CHAINAGE	493.234	493.445	498.445	499.04	500	501.625	503.445	503.512	506.512	509.512	512.814

LONGITUDINAL SECTION ROAD 04

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

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

0 1 2 3 4 5m
Vert. Scale 1:100 - A1 (1:200 - A3)

REV	DATE	DESCRIPTION	INT
C	19-06-24	PROFILE AMENDED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
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DRAWING TITLE

LONGITUDINAL SECTIONS ROADS 03 & 04

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Gold Coast Office Suite 9, 19 Short St Southport QLD 4215

DESIGNED RB | DRAWN EMH
APPROVED [signature] RPEQ 4706 | DATE 03-03-23
DRAWING NUMBER 41901-01-202 | REV C

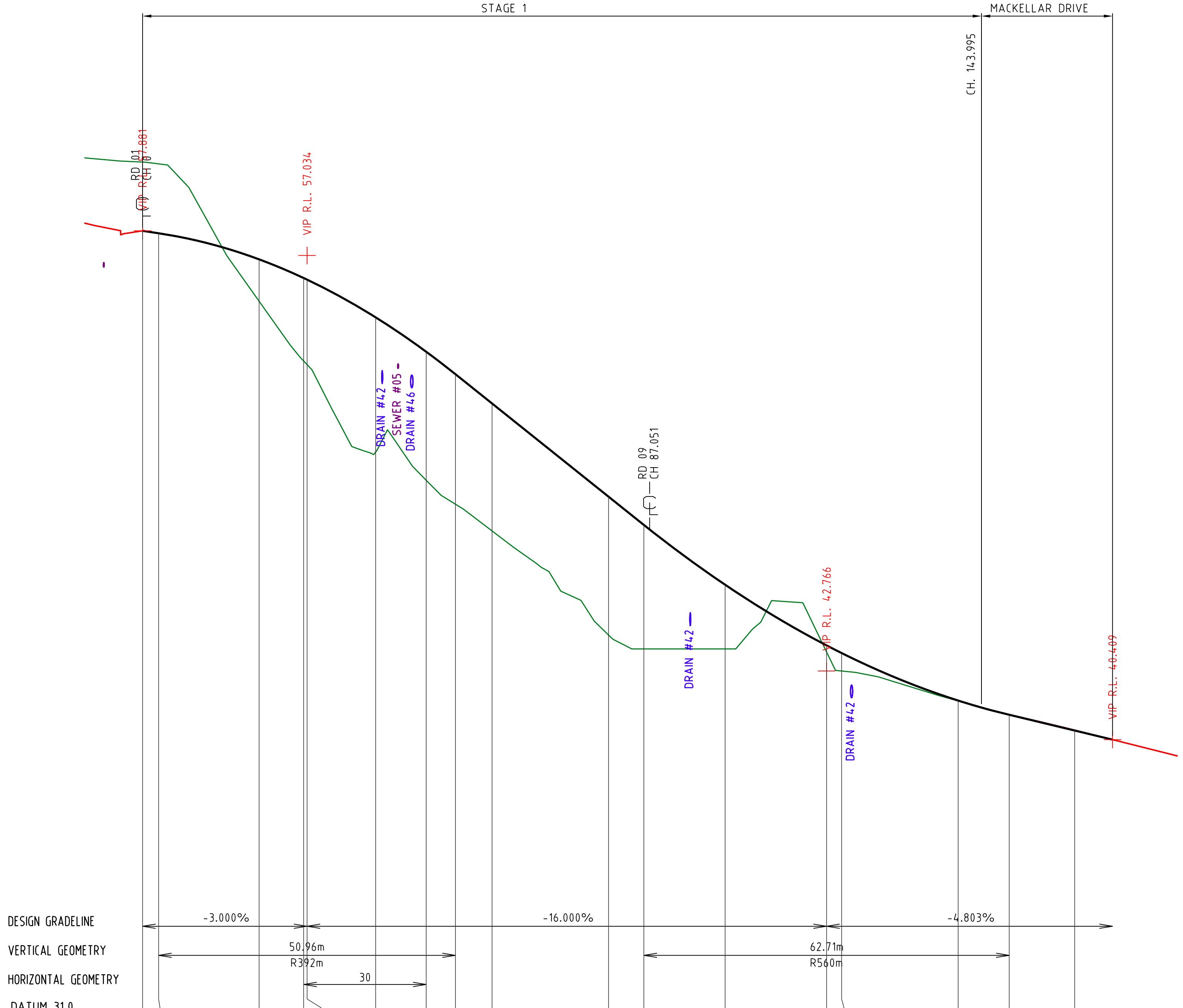
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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

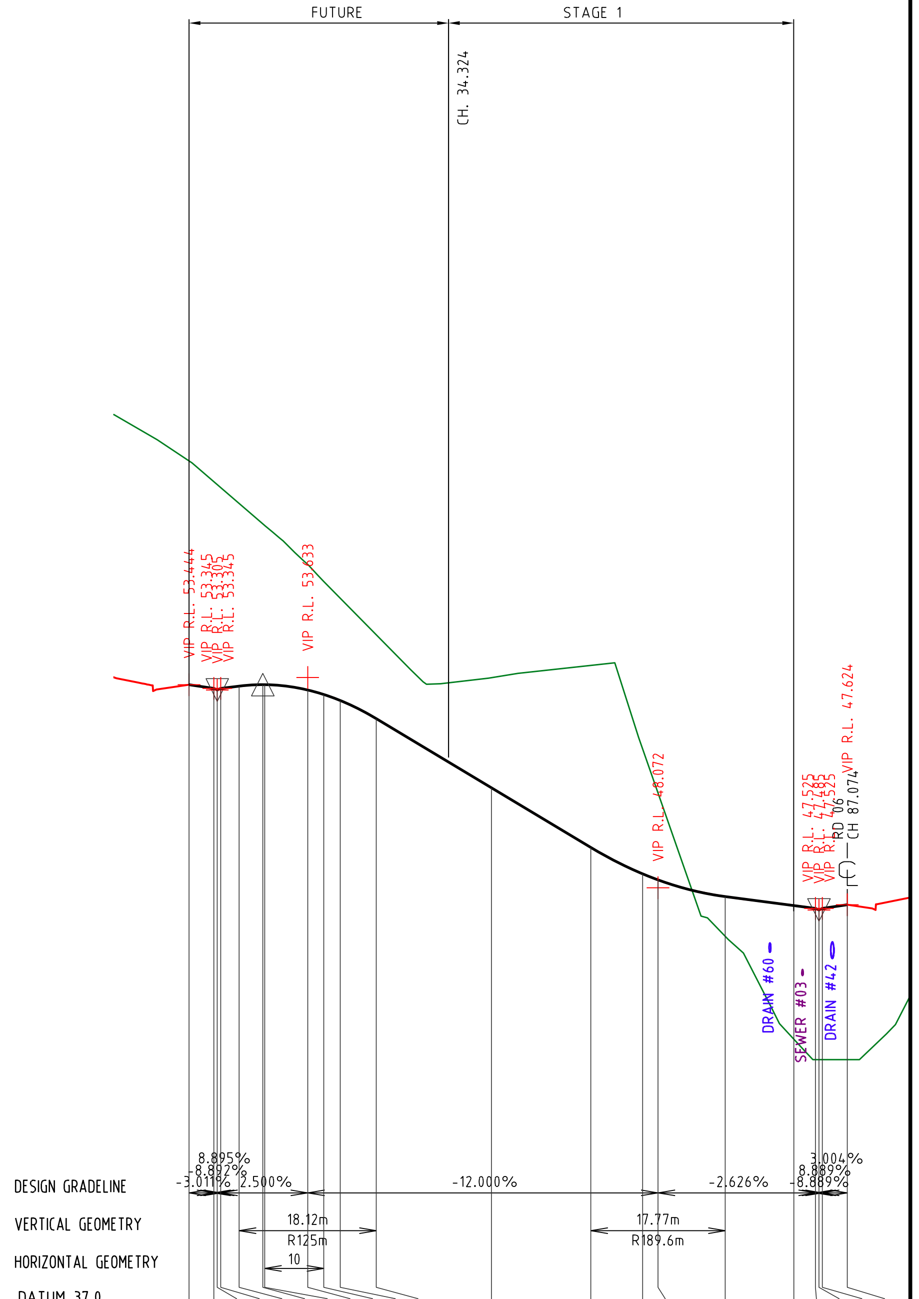
Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



CONTROL LINE LEVELS	57.881	57.798	56.901	56.26	56.206	54.911	53.729	52.957	51.951	48.751	47.783	45.725	43.644	43.38	41.749	41.26	40.72
EXISTING SURFACE	60.243	60.181	55.462	53.412	53.29	50.282	49.313	48.491	47.571	43.998	43.523	43.523	43.422	42.765	41.736	41.26	40.731
DEPTH	2.362	2.383	-1.44	-2.848	-2.916	-4.63	-4.417	-4.466	-4.38	-4.753	-4.26	-2.202	-0.222	-0.615	-0.013	0	0.011
CHAINAGE	0	2.753	20	27.659	28.233	40	48.684	53.714	60	80	86.052	100	117.406	120	140	148.76	160

LONGITUDINAL SECTION 06



CONTROL LINE LEVELS	53.444	53.345	53.305	53.345	53.406	53.445	53.445	53.304	53.185	53.026	52.545	50.717	49.138	48.44	48.28	47.838	47.6	47.525	47.485	47.525	47.624
EXISTING SURFACE	59.367	58.816	58.739	58.661	58.238	57.699	57.657	56.623	56.175	55.733	54.765	53.629	53.955	51.749	50.578	46.784	44.066	43.523	43.523	43.523	43.523
DEPTH	5.924	5.471	5.434	5.316	4.832	4.254	4.212	3.319	2.99	2.707	2.22	2.912	4.817	3.308	2.298	-1.054	-3.534	-4.002	-3.962	-4.002	-4.101
CHAINAGE	0	3.289	3.739	4.189	6.639	9.764	10.008	15.701	17.824	20	24.764	40	53.156	60	62.043	70.929	80	82.874	83.324	83.774	87.074

LONGITUDINAL SECTION 09

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

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

0 1 2 3 4 5m
Vert. Scale 1:100 - A1 (1:200 - A3)

REV	DATE	DESCRIPTION	INT
B	14-07-23	RFI AMENDMETS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

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Robin Russell & ASSOCIATES PTY. LTD.

BENNETT + BENNETT

DRAWING TITLE

LONGITUDINAL SECTIONS
ROADS 06 & 09

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
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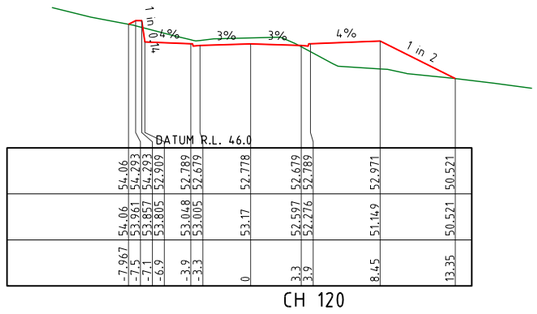
DESIGNED RB		DRAWN EMH	
APPROVED W.K. Morton	RPEQ 4706	DATE 03-03-23	
DRAWING NUMBER 41901-01-203		REV B	

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

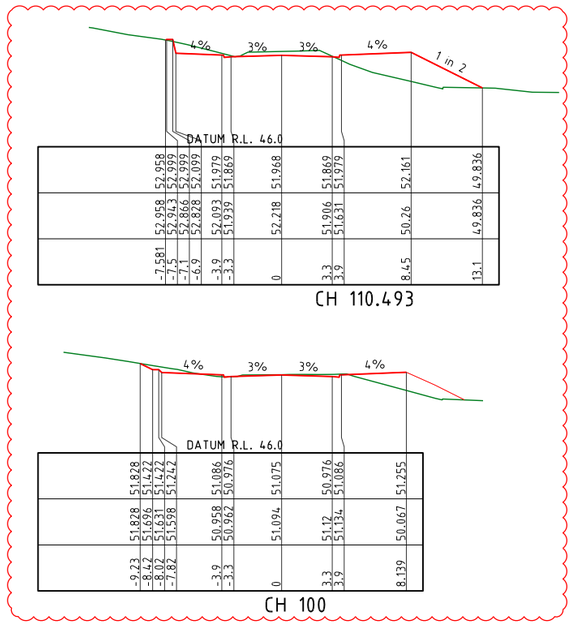
Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

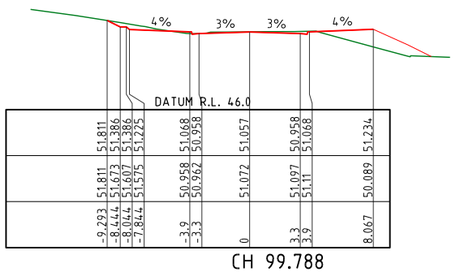


CH 120

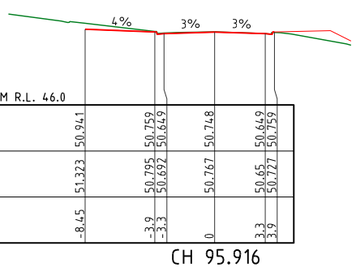


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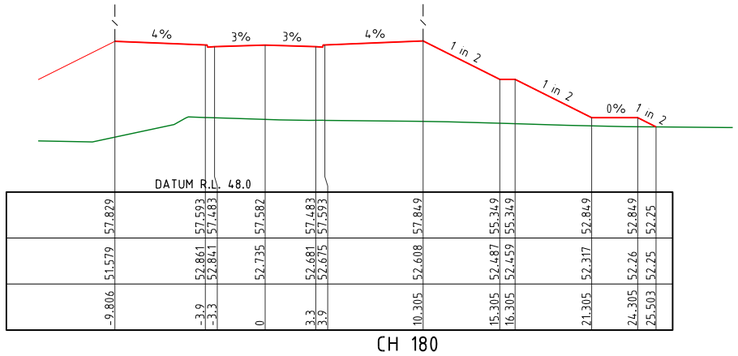
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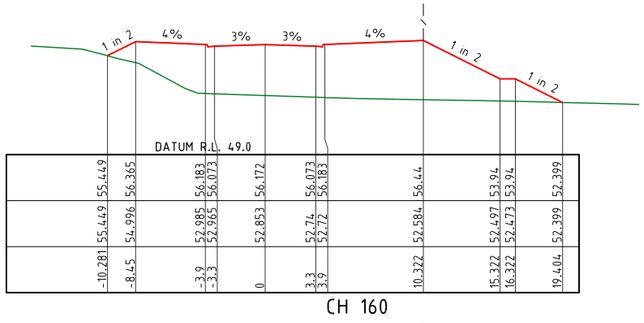
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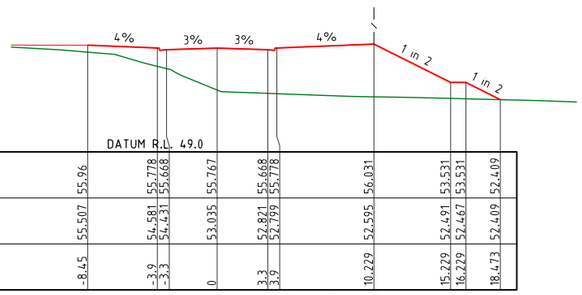
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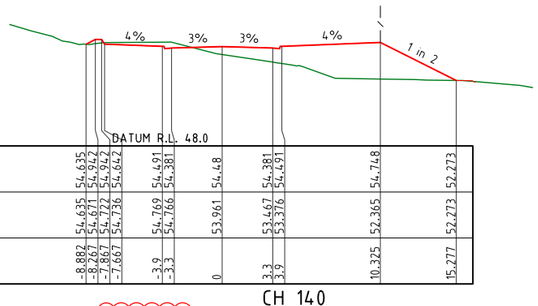
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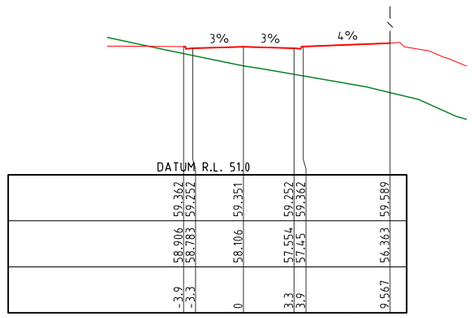
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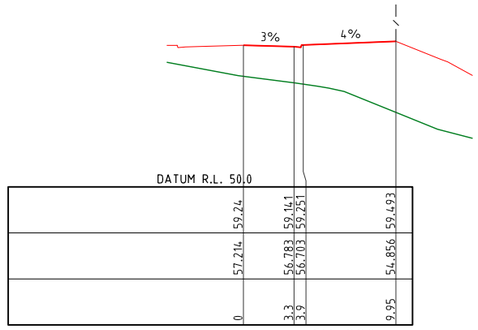
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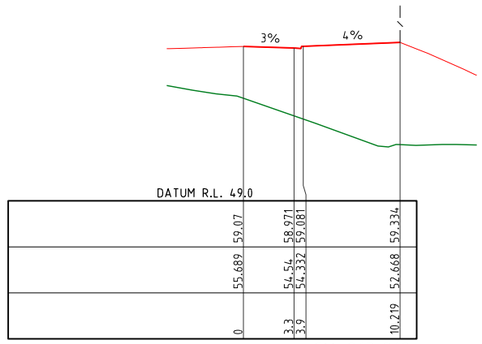
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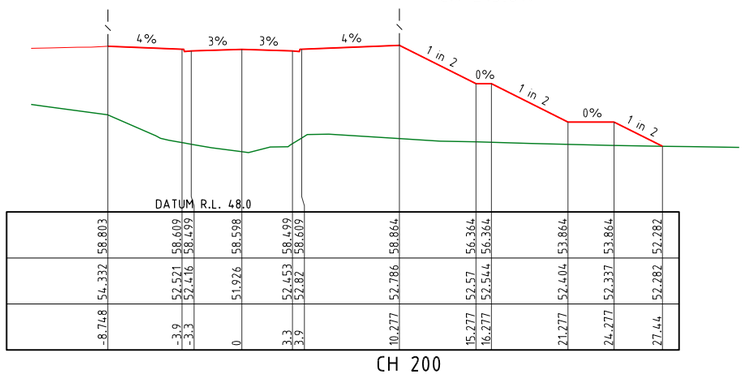
CH 224.073



CH 220



CH 213.819



CH 200

NOTES:

1. REFER TO 080 SERIES FINAL SURFACE PLAN DWGS FOR EARTHWORKS BEYOND ROAD RESERVE.

2. CROSS SECTIONS WITH NO TEMPLATE REPRESENT CONTROL LINE LEVELS AT THAT CHAINAGE.

ROAD 01

B

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

0 2 4 6 8 10m
Scale 1:200 - A1 (1:400 - A3)

REV	DATE	DESCRIPTION	INT
B	19-06-24	SECTIONS UPDATED	BL
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT+BENNETT

DRAWING TITLE

CROSS SECTIONS
ROAD 01

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination
MUS Pty Ltd T/As
Mortons-Urban Solutions
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www.urbansolutions.net.au
Tel 07 5571 1099
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Gold Coast Office
Suite 9, 19 Short St
Southport QLD 4215

DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER	REV
41901-01-300	B

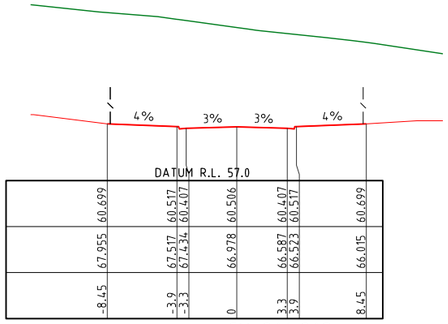
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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

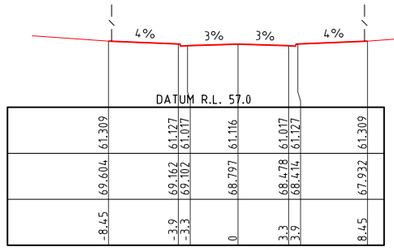
Application No: MIN/2024/360

Dated: 31 July 2024

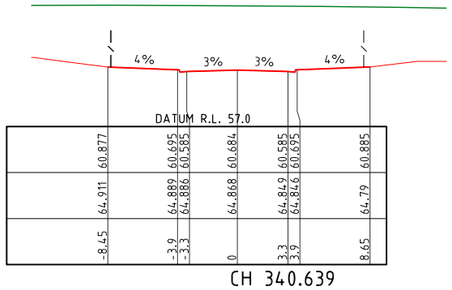
Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



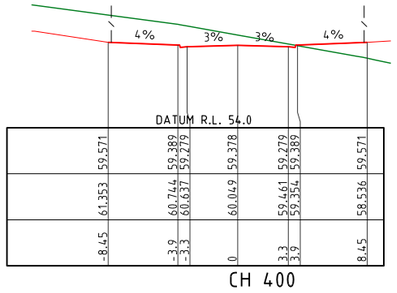
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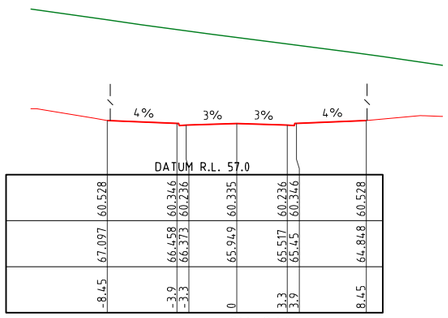
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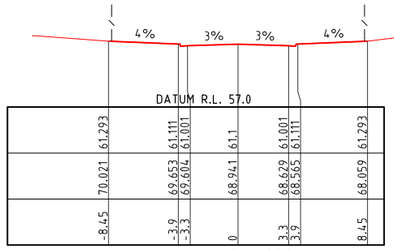
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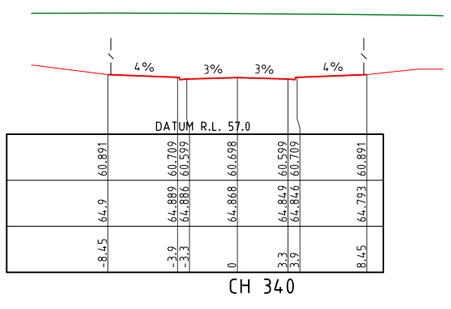
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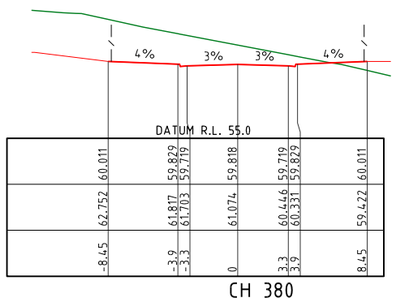
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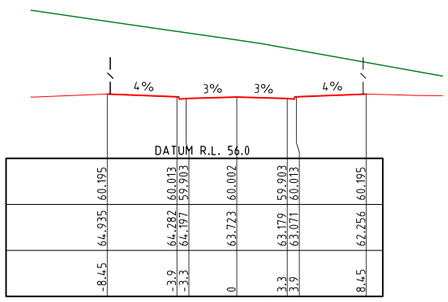
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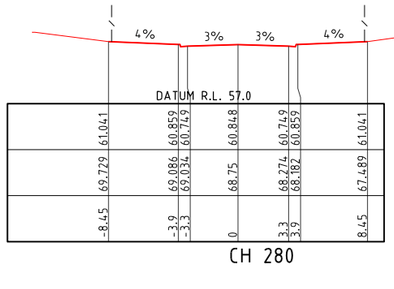
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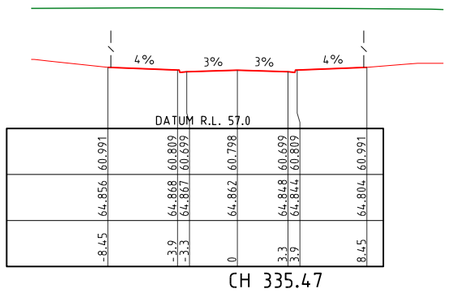
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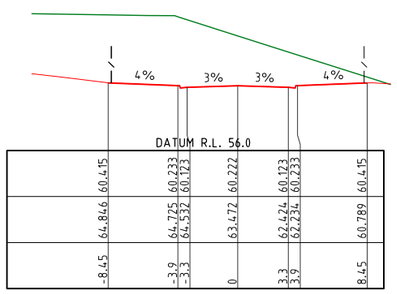
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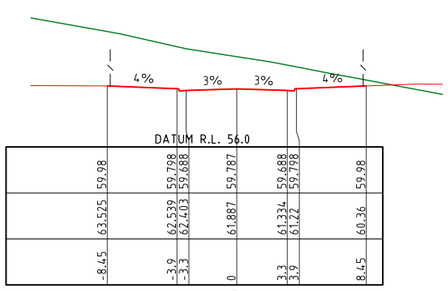
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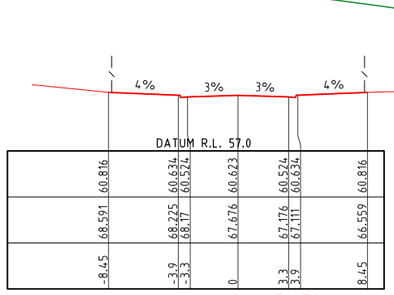
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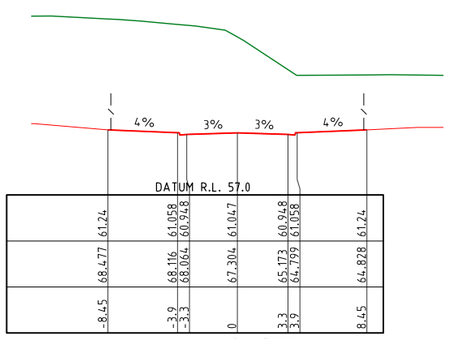
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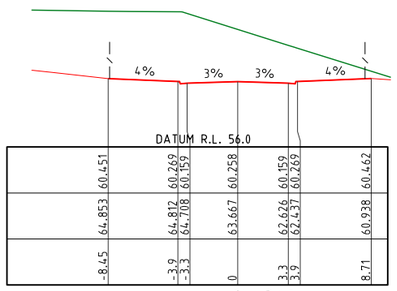
CH 240



CH 270.534



CH 320



CH 360

ROAD 01

NOTES:

1. REFER TO 080 SERIES FINAL SURFACE PLAN DWGS FOR EARTHWORKS BEYOND ROAD RESERVE.

2. CROSS SECTIONS WITH NO TEMPLATE REPRESENT CONTROL LINE LEVELS AT THAT CHAINAGE.

DESIGN SURFACE LEVEL

EXISTING SURFACE LEVEL

OFFSET

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

0 2 4 6 8 10m
Scale 1:200 - A1 (1:400 - A3)

REV	DATE	DESCRIPTION	INT
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING

Robin Russell & ASSOCIATES PTY. LTD.

BENNETT+BENNETT

DRAWING TITLE

CROSS SECTIONS
ROAD 01
CONTINUED

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

MUS Pty Ltd T/As
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Southport QLD 4215

DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER 41901-01-301

REV A

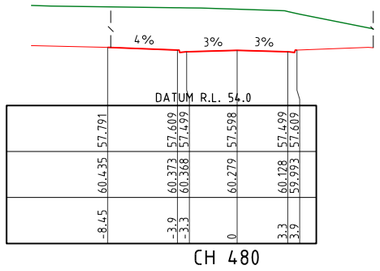
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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

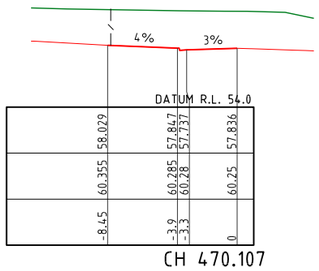
Application No: MIN/2024/360

Dated: 31 July 2024

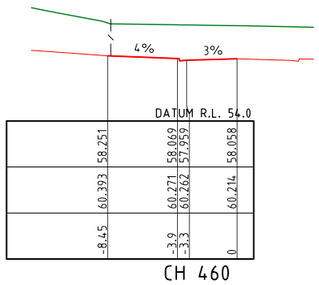
Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



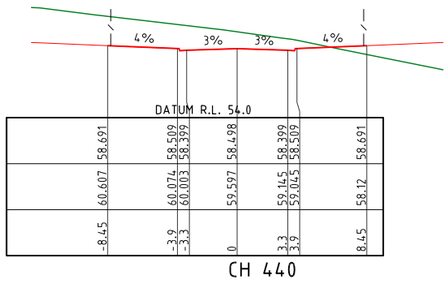
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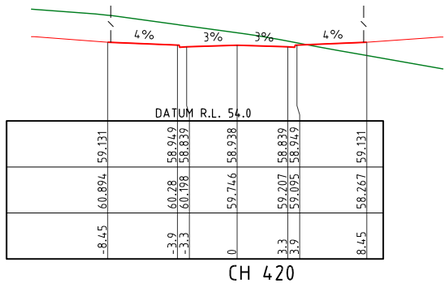
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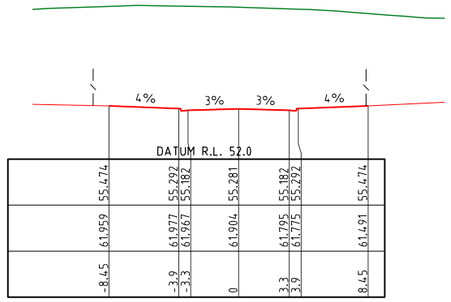
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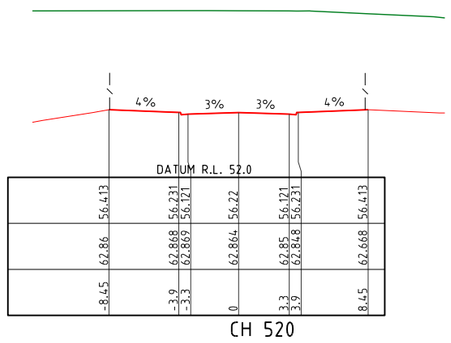
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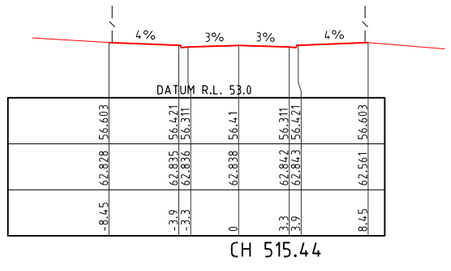
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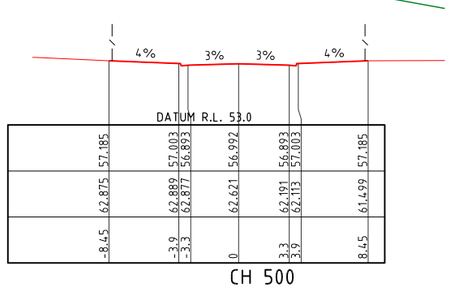
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CH 520

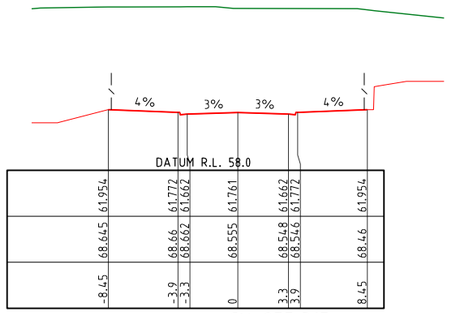


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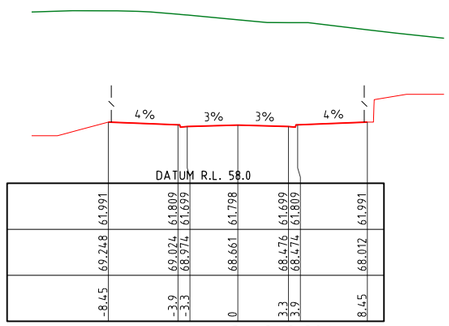


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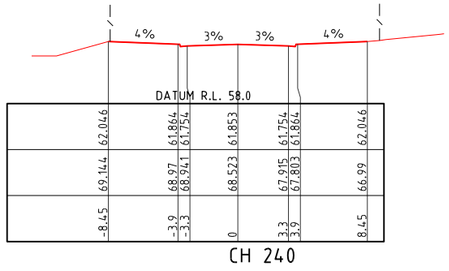
ROAD 01



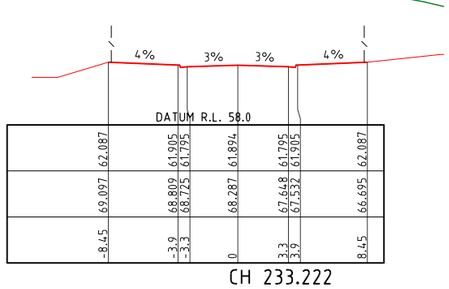
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CH 249.206

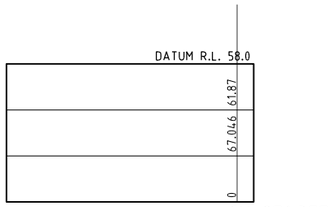


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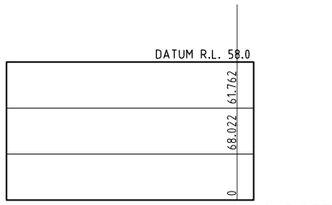


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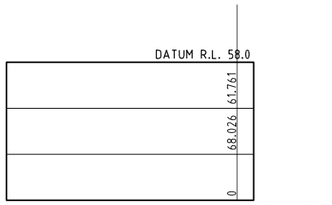
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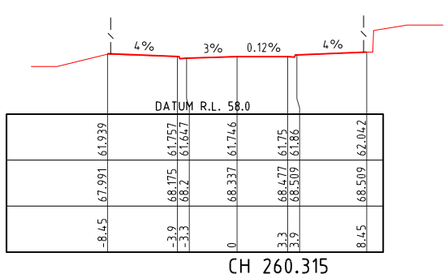
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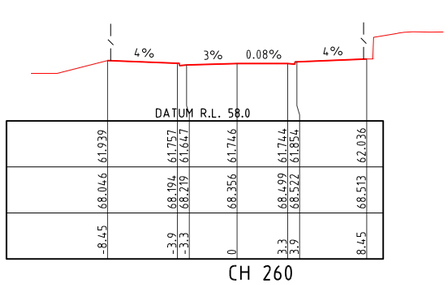
CH 265.377



CH 265.315



CH 260.315



CH 260

NOTES:

1. REFER TO 080 SERIES FINAL SURFACE PLAN DWGS FOR EARTHWORKS BEYOND ROAD RESERVE.

2. CROSS SECTIONS WITH NO TEMPLATE REPRESENT CONTROL LINE LEVELS AT THAT CHAINAGE.

DESIGN SURFACE LEVEL

EXISTING SURFACE LEVEL

OFFSET

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

0 2 4 6 8 10m
Scale 1:200 - A1 (1:400 - A3)

REV	DATE	DESCRIPTION	INIT
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING

Robin Russell & ASSOCIATES PTY. LTD.

BENNETT + BENNETT

DRAWING TITLE

CROSS SECTIONS
ROAD 01 CONTINUED
AND ROAD 03

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

MUS Pty Ltd T/As:
Mortons-Urban Solutions
ABN: 39 116 375 065
mortons@urbansolutions.net.au
www.urbansolutions.net.au
Tel 07 5571 1099

Postal Address
PO Box 2484
Southport QLD 4215

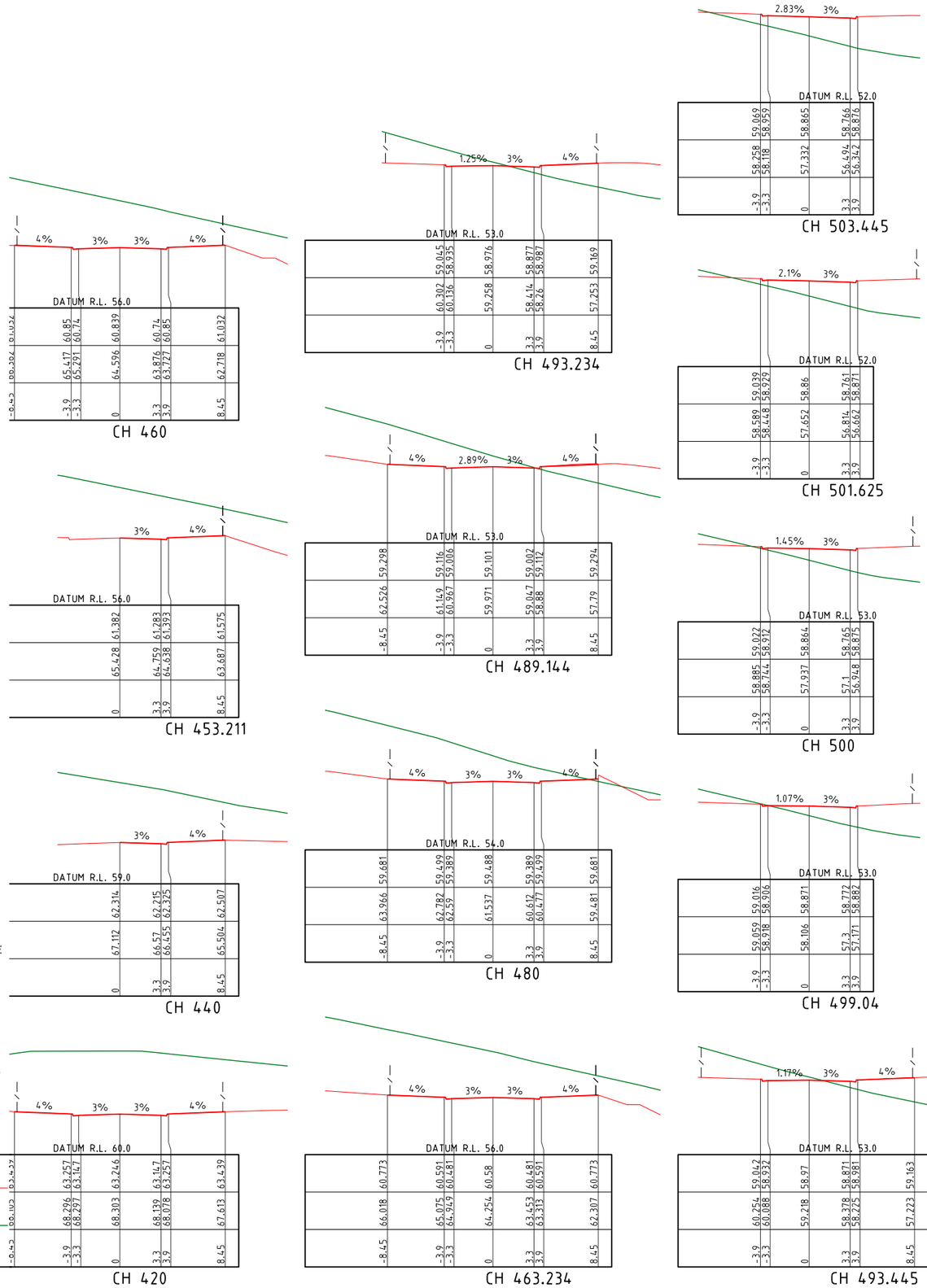
Gold Coast Office
Suite 9, 19 Short St
Southport QLD 4215

DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ 4706	DATE 03-03-23

DRAWING NUMBER 41901-01-302

REV A

F:\Autocad Client\419 - HB Land\01 - Courtney Drive\Precinct-Stage 01\Engineering Drawings\Current\41901-01-300.dwg, SHEET 03, 24/06/2024 2:23:24 PM, 1:2



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

NOTES:

1. REFER TO 080 SERIES FINAL SURFACE PLAN DWGS FOR EARTHWORKS BEYOND ROAD RESERVE.

2. CROSS SECTIONS WITH NO TEMPLATE REPRESENT CONTROL LINE LEVELS AT THAT CHAINAGE.

ROAD 04

PROJECT NAME

COURTNEY DR
UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

0 2 4 6 8 10m
Scale 1:200 - A1 (1:400 - A3)

REV	DATE	DESCRIPTION	INT
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT+BENNETT

DRAWING TITLE

CROSS SECTIONS
ROAD 04

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination
MUS Pty Ltd T/As:
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Southport QLD 4215

DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER 41901-01-303 REV A

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ROAD 06 – Cross Sections

CH 40 (DATUM R.L. 47.0)

DESIGN SURFACE LEVEL	55.104	54.922	54.812	54.911	54.812	54.922	55.125
EXISTING SURFACE LEVEL	51.814	50.966	50.88	50.282	51.019	51.244	51.453
OFFSET	-8.45	-3.9	-3.3	0	3.3	3.9	8.959

CH 27.659 (DATUM R.L. 50.0)

DESIGN SURFACE LEVEL	56.469	56.271	56.161	56.26	56.161	56.271	56.469
EXISTING SURFACE LEVEL	54.52	53.801	53.738	53.412	53.32	53.315	53.281
OFFSET	-8.85	-3.9	-3.3	0	3.3	3.9	8.854

CH 20 (DATUM R.L. 52.0)

DESIGN SURFACE LEVEL	57.11	56.912	56.802	56.901	56.802	56.912	57.11
EXISTING SURFACE LEVEL	56.188	55.66	55.596	55.462	55.39	55.378	55.277
OFFSET	-8.85	-3.9	-3.3	0	3.3	3.9	8.85

CH 2.753 (DATUM R.L. 54.0)

DESIGN SURFACE LEVEL	57.798
EXISTING SURFACE LEVEL	60.181
OFFSET	0

CH 0 (DATUM R.L. 54.0)

DESIGN SURFACE LEVEL	57.881
EXISTING SURFACE LEVEL	60.243
OFFSET	0

NOTES:

1. REFER TO 080 SERIES FINAL SURFACE PLAN DWGS FOR EARTHWORKS BEYOND ROAD RESERVE.
2. CROSS SECTIONS WITH NO TEMPLATE REPRESENT CONTROL LINE LEVELS AT THAT CHAINAGE.

CH 80 (DATUM R.L. 40.0)

DESIGN SURFACE LEVEL	48.762	48.652	48.751	48.652	48.762	48.944
EXISTING SURFACE LEVEL	44.225	44.107	43.998	44.783	45.048	46.463
OFFSET	-3.9	-3.3	0	3.3	3.9	8.45

CH 60 (DATUM R.L. 44.0)

DESIGN SURFACE LEVEL	52.144	51.962	51.852	51.951	51.852	51.962	52.144
EXISTING SURFACE LEVEL	48.054	47.316	47.24	47.571	48.129	48.206	48.99
OFFSET	-8.45	-3.9	-3.3	0	3.3	3.9	8.45

CH 53.714 (DATUM R.L. 45.0)

DESIGN SURFACE LEVEL	53.15	52.968	52.858	52.957	52.858	52.968	53.15
EXISTING SURFACE LEVEL	48.774	48.271	48.195	48.491	48.914	48.99	49.673
OFFSET	-8.45	-3.9	-3.3	0	3.3	3.9	8.45

CH 48.684 (DATUM R.L. 46.0)

DESIGN SURFACE LEVEL	53.922	53.74	53.63	53.729	53.63	53.74	53.939
EXISTING SURFACE LEVEL	49.442	49.084	49.051	49.313	49.832	49.927	50.41
OFFSET	-8.45	-3.9	-3.3	0	3.3	3.9	8.854

ROAD 06

CH 144 (DATUM R.L. 37.0)

DESIGN SURFACE LEVEL	42.059	41.702	41.52	41.41	41.509	41.41	41.52	41.702	41.048
EXISTING SURFACE LEVEL	42.059	42.016	41.527	41.414	41.514	41.408	41.471	40.804	41.048
OFFSET	-9.163	-8.45	-3.9	-3.3	0	3.3	3.9	8.45	9.758

CH 140 (DATUM R.L. 38.0)

DESIGN SURFACE LEVEL	42.367	41.942	41.76	41.65	41.749	41.65	41.76	41.942	41.915
EXISTING SURFACE LEVEL	42.367	42.317	41.747	41.636	41.736	41.635	41.724	41.914	41.915
OFFSET	-9.3	-8.45	-3.9	-3.3	0	3.3	3.9	8.45	8.504

CH 120 (DATUM R.L. 39.0)

DESIGN SURFACE LEVEL	45.905	45.905	43.605	43.605	43.391	43.281	43.38	43.281	43.391	43.573
EXISTING SURFACE LEVEL	42.825	42.819	42.818	42.81	42.7	42.695	42.765	42.806	42.81	42.882
OFFSET	-10.3	-9.9	-9.85	-9.25	-3.9	-3.3	0	3.3	3.9	8.45

CH 100 (DATUM R.L. 40.0)

DESIGN SURFACE LEVEL	48	48	45.95	45.95	45.736	45.626	45.725	45.626	45.736	45.918
EXISTING SURFACE LEVEL	43.523	43.523	43.523	43.523	43.523	43.523	43.523	43.523	43.545	44.124
OFFSET	-10.3	-9.9	-9.85	-9.25	-3.9	-3.3	0	3.3	3.9	8.45

CH 86.052 (DATUM R.L. 40.0)

DESIGN SURFACE LEVEL	47.684	47.684	47.783	47.684	47.794	47.976
EXISTING SURFACE LEVEL	43.549	43.523	43.523	43.973	44.088	45.477
OFFSET	-4.2	-3.3	0	3.3	3.9	8.45

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

0 2 4 6 8 10m
Scale 1:200 - A1 (1:400 - A3)

REV	DATE	DESCRIPTION	INT
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT + BENNETT

DRAWING TITLE

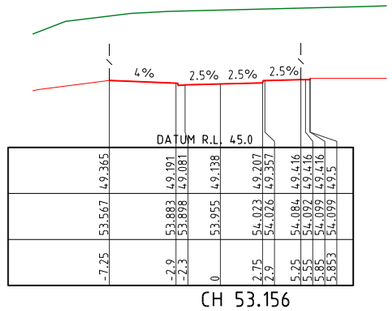
CROSS SECTIONS
ROAD 06

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Project Coordination
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Southport QLD 4215

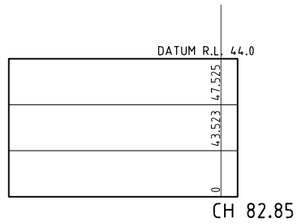
DESIGNED RB | DRAWN EMH
APPROVED W.K. Morton | RPEQ 4706 | DATE 03-03-23

DRAWING NUMBER 41901-01-304 | REV A

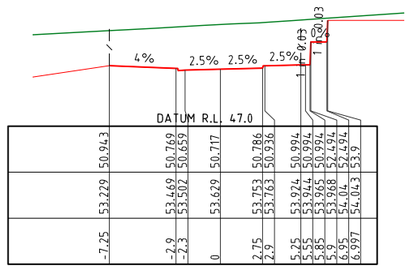
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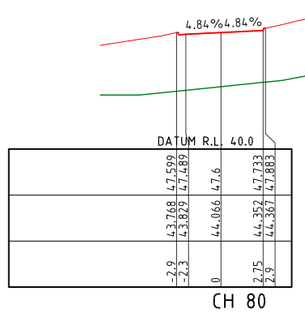
CH 53.156



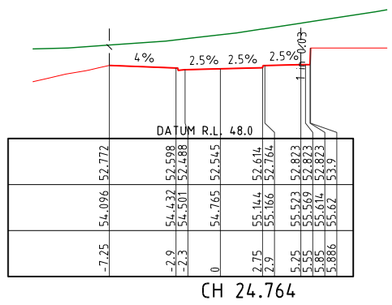
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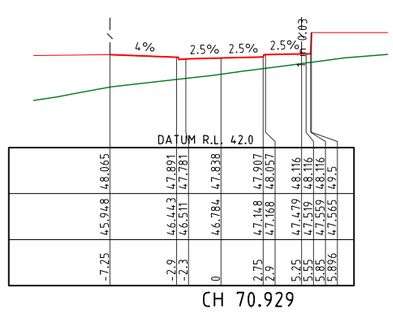
CH 40



CH 80



CH 24.764



CH 70.929

NOTES:

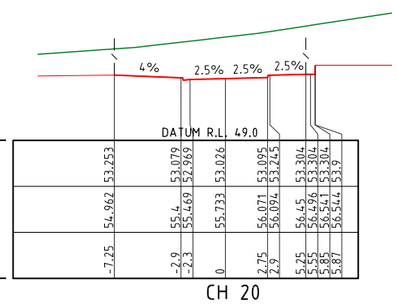
1. REFER TO 080 SERIES FINAL SURFACE PLAN DWGS FOR EARTHWORKS BEYOND ROAD RESERVE.

2. CROSS SECTIONS WITH NO TEMPLATE REPRESENT CONTROL LINE LEVELS AT THAT CHAINAGE.

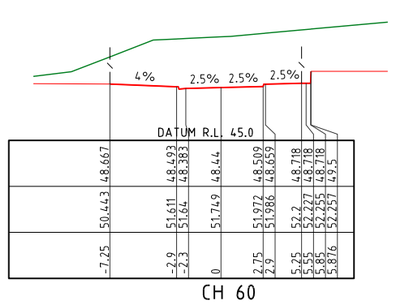
DESIGN SURFACE LEVEL

EXISTING SURFACE LEVEL

OFFSET



CH 20



CH 60

ROAD 09

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

0 2 4 6 8 10m
Scale 1:200 - A1 (1:400 - A3)

REV	DATE	DESCRIPTION	INT
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
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BENNETT+BENNETT

DRAWING TITLE

CROSS SECTIONS
ROAD 09

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Southport QLD 4215

DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER	REV
41901-01-305	B

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LEGEND

- EXISTING KERB (INVERT)
- EXISTING KERB (LIP & BACK)
- EXISTING FOOTPATH
- EXISTING PROPERTY LINE
- EXISTING CONTOURS (1.0)
- FUTURE KERB
- FUTURE FOOTPATH
- FUTURE PROPERTY LINE
- FUTURE CONTOURS (1.0)
- CONTROL LINE / CENTER OF ROAD
- PROPOSED KERB (INVERT)
- PROPOSED KERB (LIP & BACK)
- PROPOSED FOOTPATH
- PROPOSED PROPERTY LINE
- SITE BOUNDARY
- STAGE BOUNDARY
- DESIGN CONTOURS (1.0)
- PROPOSED CONCRETE

24.0 _ 41.065 — INTERSECTION CHAINAGE & LEVEL

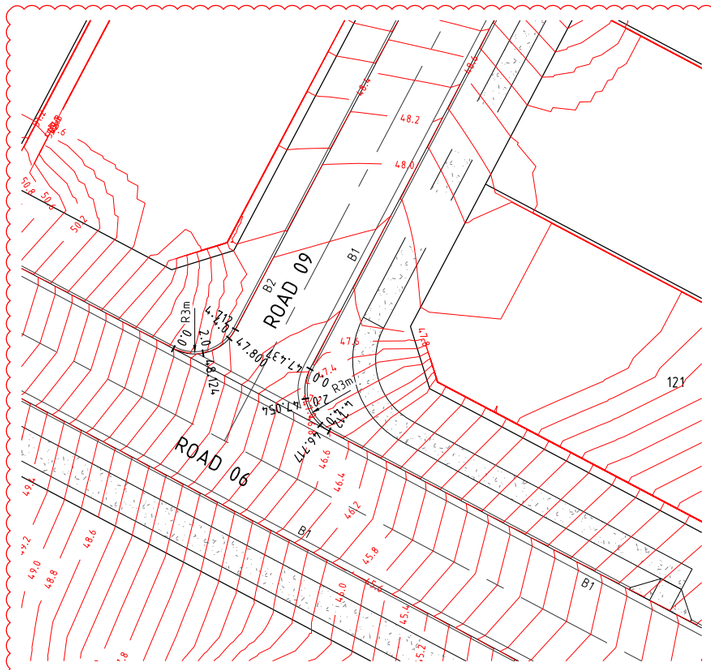
B1 — BARRIER KERB & CHANNEL
B2 — BARRIER KERB

INVERT CHANNEL 900

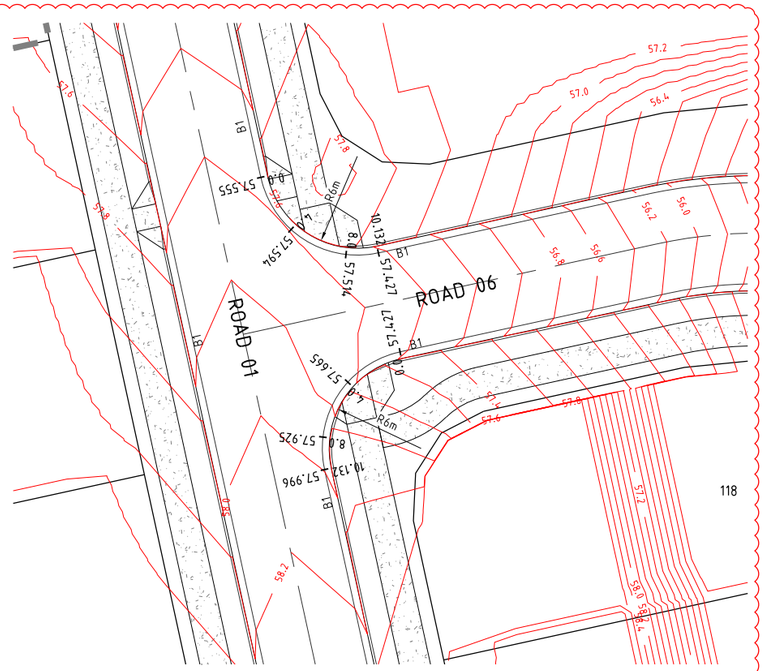
REFER TO DRG. 120 FOR KERB TYPES

NOTES:

1. SETOUT POINT DENOTES LIP OF KERB WHERE LIP OF KERB, OR FACE OF KERB WHERE NO LIP.
2. FOR KERB TYPES REFER TO SCHEDULE OF KERB TYPES ON DWG. 120



INTERSECTION
ROAD 06 & ROAD 09



INTERSECTION
ROAD 01 & ROAD 06

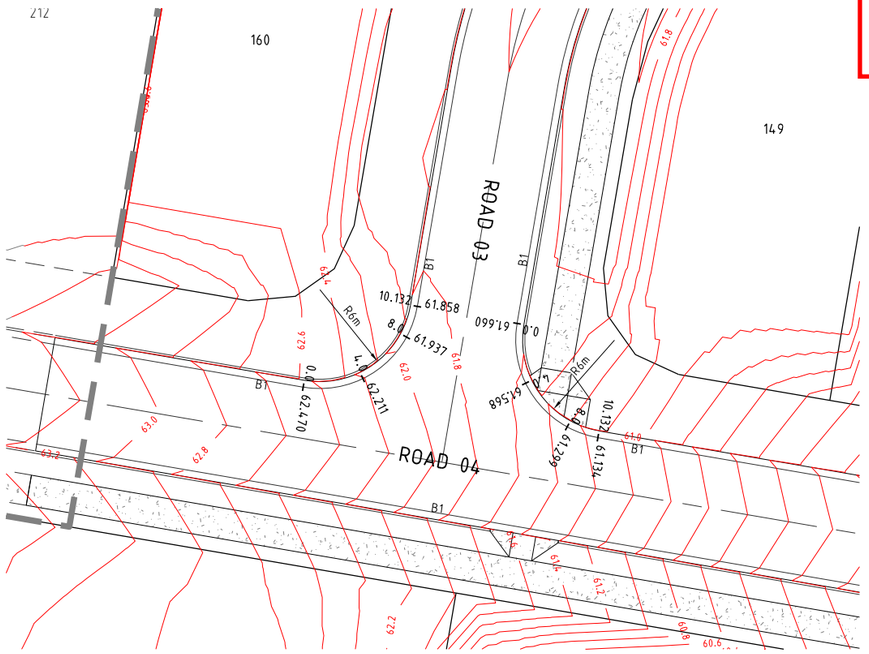
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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

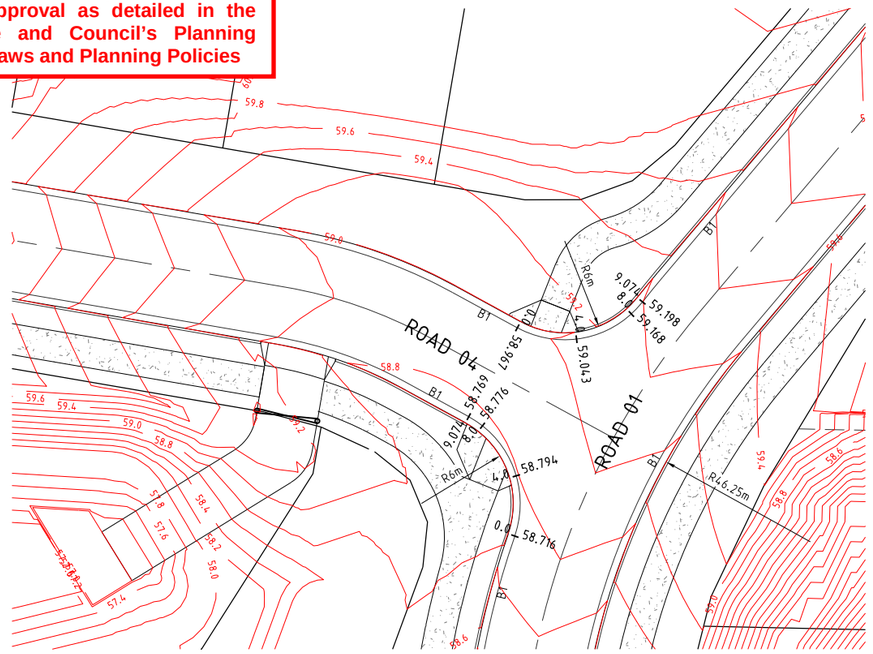
Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



INTERSECTION
ROAD 03 & ROAD 04



INTERSECTION
ROAD 01 & ROAD 04

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 2 4 6 8 10m

Scale 1:200 - A1 (1:400 - A3)

REV	DATE	DESCRIPTION	INT
C	31-05-24	FOOTPATH ROAD 06 CHANGED	EP
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

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Robin Russell & ASSOCIATES PTY. LTD.
BENNETT + BENNETT

DRAWING TITLE

INTERSECTION
GRADING DETAILS

MORTONS urbansolutions
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Civil Engineering
Project Coordination

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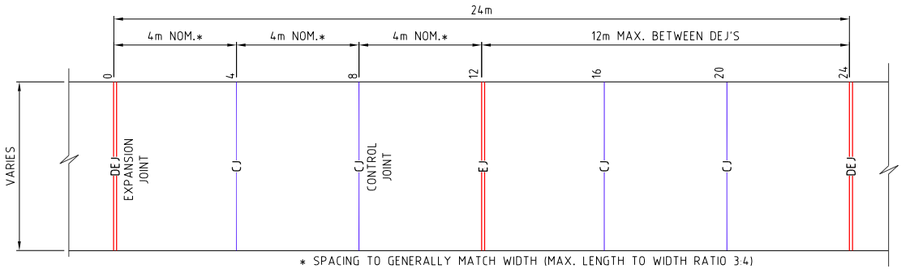
DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ 4706	DATE 03-03-23

DRAWING NUMBER: 41901-01-400
REV: C

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CONCRETE PAVEMENT DRIVEWAY:

1. CONCRETE MIX
   THE CONCRETE SHALL HAVE A MINIMUM 28 DAY CHARACTERISTIC COMPRESSIVE STRENGTH AS SPECIFIED IN THE SCHEDULE OF CONCRETE PAVEMENTS TABLE, MAXIMUM WATER/CEMENT RATIO OF 0.45 & A MINIMUM CEMENT CONTENT OF 300kg/m³.
2. SUBGRADE PREPARATION
   THE SUBGRADE TO THE CONCRETE PAVEMENT AREAS SHALL BE PREPARED THE SAME AS CONVENTIONAL ROADS. REFER TO SCHEDULE OF CONCRETE PAVEMENTS TABLE.
3. TRAFFIC
   TRAFFIC SHALL NOT BE ALLOWED ON THE FINISHED CONCRETE PAVEMENT FOR AT LEAST 14 DAYS AFTER COMPLETION OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING MEASURES TO PREVENT UNAUTHORISED ACCESS.
4. JOINTS
   ALL JOINTS SHALL BE LOCATED GENERALLY PERPENDICULAR TO THE CENTRELINE. ALL CONTROL JOINTS TO BE COMPLETED AS SOON AS CONCRETE HAS CURED SUFFICIENTLY SO AS NOT TO DAMAGE THE SLAB SURFACE.
   ALL JOINTS ARE TO BE INSTALLED AS DETAILED ON IPWEAQ STD DWG RS-065.
5. GENERAL
   THE GRAVEL PAVEMENT SHALL BE NEATLY PROFILED & TRIMMED TO ENSURE CONSTANT CONCRETE DEPTHS & PROFILES. ACTUAL CONSTRUCTION REQUIREMENTS MAY VARY FROM THE DETAILS SHOWN & THEREFORE ALL CONSTRUCTION DETAILS SHOULD BE VERIFIED BY THE SUPERINTENDENT PRIOR TO CONSTRUCTION COMMENCING. PROVIDE ABLEFLEX BETWEEN KERB & DRIVEWAY.
6. COMPLIANCE ST&ARDS
   SLIP RESISTANCE OF SURFACE MATERIALS IN ACCORDANCE WITH AUSTRALIAN STANDARDS.
   AS/NZS 4586: 2013 SLIP RESISTANCE OF NEW PEDESTRIAN SURFACE MATERIALS.
   AS/NZS 4663: 2013 SLIP RESISTANCE MEASUREMENT OF EXISTING PEDESTRIAN SURFACES
   HB A:A 197: 1999 "AN INTRODUCTORY GUIDE TO THE SLIP RESISTANCE OF PEDESTRIAN SURFACE MATERIALS"



TYPICAL CONCRETE PAVEMENT DETAIL FOR DRIVEWAYS AND ROADS

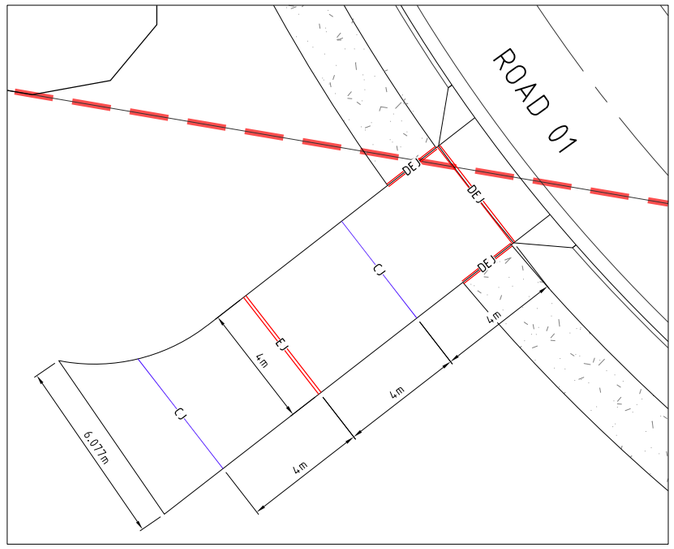
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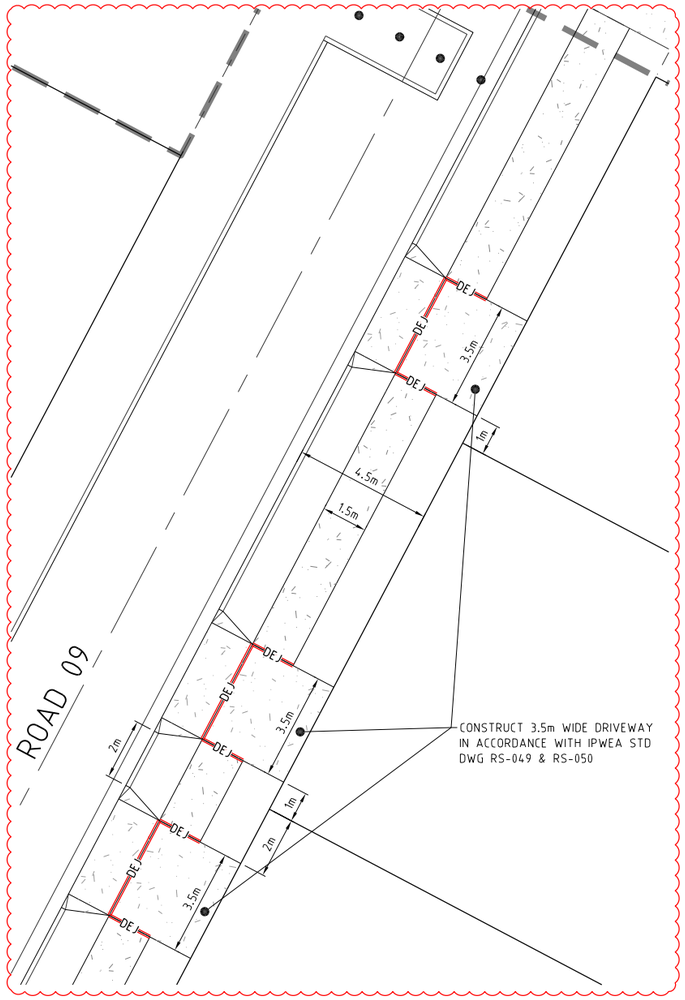
0 0.5 1.0 1.5 2.0 2.5m

Scale 1:50 - A1 (1:100 - A3)

SCHEDULE OF CONCRETE PAVEMENTS					
FUNCTION	SURFACING	SUBGRADE PREPARATION	THICKNESS 'T'	STRENGTH	REINCORCING
FOOTPATH 1.5 AND 2.0M WIDE	HEAVY BROOM FINISH	50mm SAND BLINDING LAYER	100mm	32 mPa	SL 72 MESH
DRIVEWAY STORMWATER BASIN	HEAVY BROOM FINISH	100mm (CBR 15)	175mm	32 mPa	SL 72 MESH

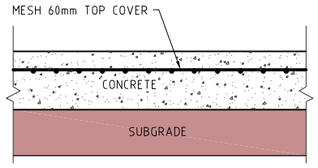
NOTE: FOOTPATH JOINTING TO BE IN ACCORDANCE WITH IPWEAQ DWG RS-065
SUPERINTENDENT TO CONFIRM SUBGRADE PREPARATION



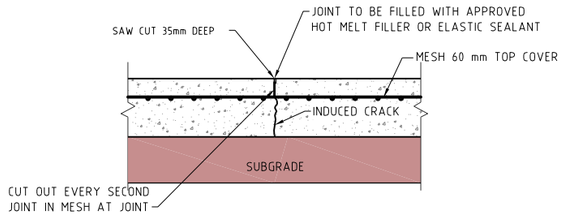


LEGEND

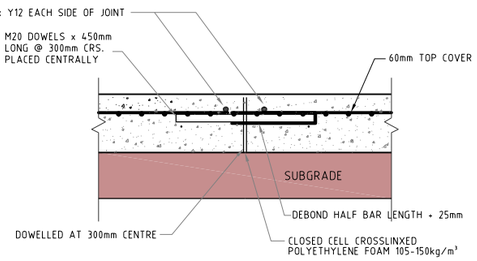
- EXISTING PROPERTY LINE
- EXISTING KERB
- FUTURE KERB
- FUTURE PROPERTY LINE
- PROPERTY LINE
- FACE OF KERB, FOOTPATHS
- LIP AND BACK OF KERB
- SITE BOUNDARY
- STAGE BOUNDARY
- EJ — EXPANSION JOINT
- DEJ — DOWELED EXPANSION JOINT
- IJ — ISOLATION JOINT
- SJ — SAW JOINT
- CJ — CONTROL JOINT
- KJ — KEY JOINT
- 2xN12 BARS AROUND PENETRATIONS TYP.



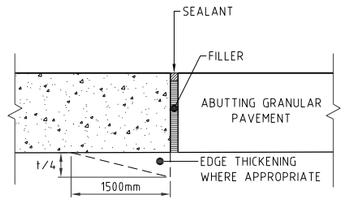
TYPICAL BROOM FINISHED CONCRETE PAVEMENT DETAIL
NOT TO SCALE



CONTROL JOINT (4m SPACING) (CJ)
NOT TO SCALE



DOWELLED EXPANSION JOINT DETAIL (24m SPACING) (EJ)
NOT TO SCALE



ISOLATION JOINT (IJ)
NOT TO SCALE

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 1 2 3 4 5m

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

REV	DATE	DESCRIPTION	INT
D	17-07-24	DRIVEWAYS & JOINTING AMENDED	EP
C	19-06-24	DRIVEWAYS ADDED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT+BENNETT

DRAWING TITLE

CONCRETE JOINTING PLAN AND DETAILS

CONSTRUCTION ISSUE

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination
MUS Pty Ltd T/As
Mortons-Urban Solutions
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DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ 4706	DATE 03-03-23

DRAWING NUMBER: 41901-01-410
REV: D

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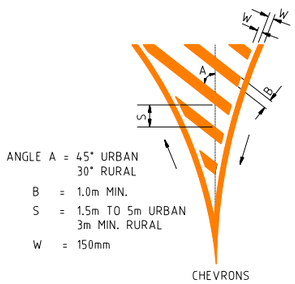
NOTES

1. LINEMARKING & SIGNAGE IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES". ALL SIGNAGE SHOWN IS DIAGRAMMATIC ONLY, & MUST BE INSTALLED AT THE HEIGHT, ORIENTATION & WITH APPROPRIATE POLE SUPPORT AS SPECIFIED IN THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
2. ALL SIGN POSTS & SIGN RAILS TO BE GALVANISED UNLESS NOTED OTHERWISE.

PAVEMENT MARKING LEGEND

- EXISTING EDGE LINE - EL
- EXISTING EDGE LINE YELLOW - EL(Y)
- EXISTING CONTINUITY LINE - CL
- EXISTING TURN LINE - TL
- EXISTING BARRIER LINE - BL(B)
- EXISTING BARRIER LINE - BL
- EXISTING LANE LINE - LL
- EXISTING LANE LINE - LL(B)
- EXISTING GIVE WAY LINE - GWL
- EXISTING STOP LINE - SL
- EDGE LINE - EL
- EDGE LINE YELLOW - EL(Y)
- CONTINUITY LINE - CL
- TURN LINE - TL
- BARRIER LINE - BL(B)
- BARRIER LINE - BL
- LANE LINE - LL
- LANE LINE - LL(B)
- GIVE WAY LINE - GWL
- STOP LINE - SL

NOTE: REFER TO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR ALL LINEMARKING AND SIGN STANDARDS



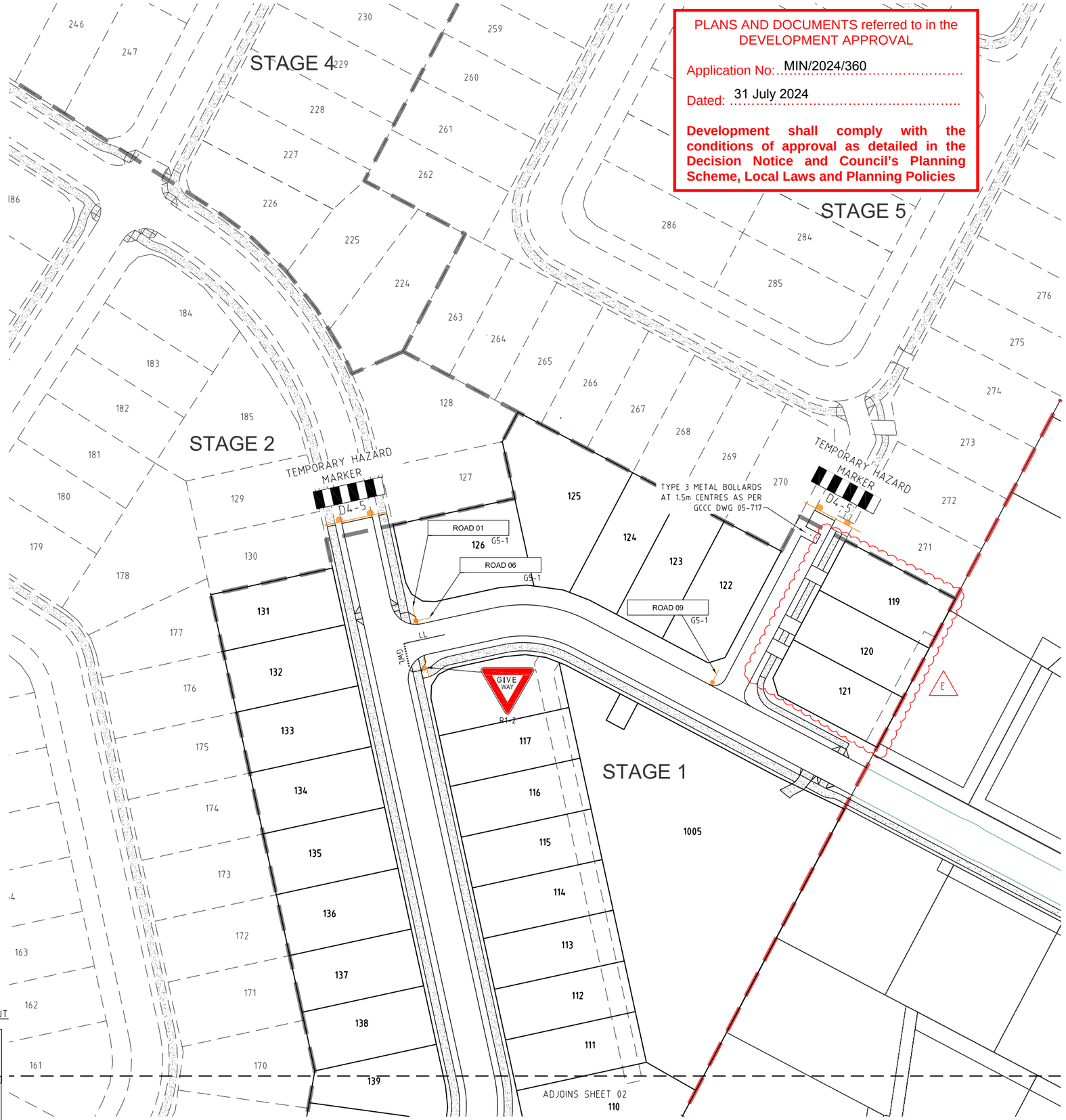
ANGLE A = 45° URBAN
30° RURAL
B = 1.0m MIN.
S = 1.5m TO 5m URBAN
3m MIN. RURAL
W = 150mm

CHEVRONS

LEGEND

- EXISTING KERB (INVERT)
- EXISTING PROPERTY LINE
- EXISTING FOOTPATH
- FUTURE KERB (INVERT)
- FUTURE FOOTPATH
- FUTURE PROPERTY LINE
- PROPOSED KERB (INVERT)
- PROPOSED FOOTPATH
- PROPOSED PROPERTY LINE
- SITE BOUNDARY
- STAGE BOUNDARY
- SIGN POST
- SIGN POST
- SIGN POST

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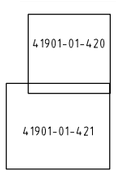
PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

SHEET LAYOUT



PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

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

REV	DATE	DESCRIPTION	INT
E	19-06-24	DRIVEWAYS ADDED	BL
D	17-06-24	FOOTPATH WIDTH AMENDED	EP
C	31-05-24	FOOTPATH ROAD 06 CHANGED	EP
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

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DRAWING TITLE

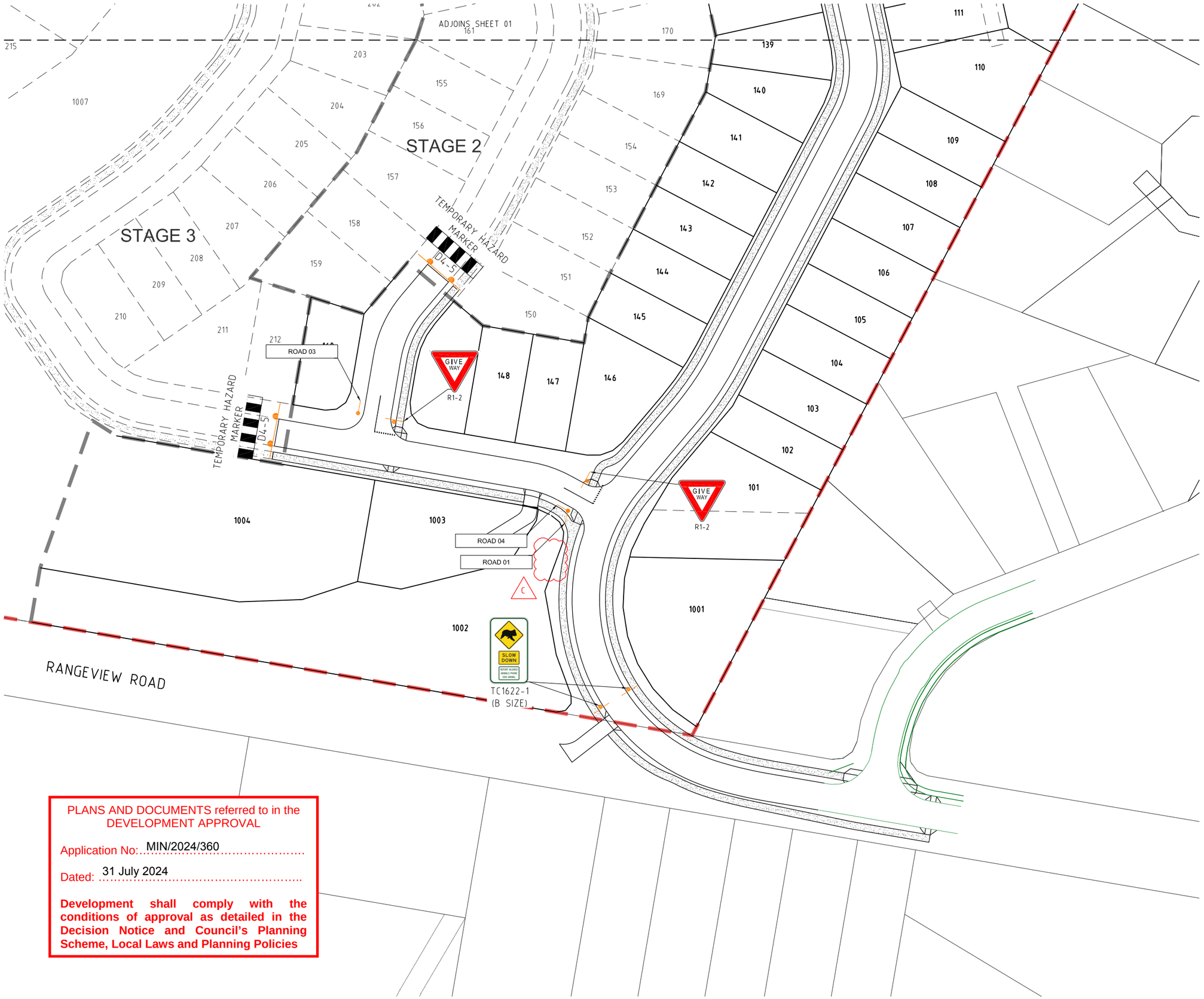
LINEMARKING & SIGNAGE PLAN
SHEET 01

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DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ	4706
DATE	03-03-23		

DRAWING NUMBER	REV
41901-01-420	E

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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

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Dated: 31 July 2024

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PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

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COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
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0 5 10 15 20 25m

Scale 1:500 - A1 (1:1000 - A3)

REV	DATE	DESCRIPTION	INT
C	19-06-24	PAD MOUNT REMOVED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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BENNETT+BENNETT

DRAWING TITLE

LINEMARKING & SIGNAGE PLAN
SHEET 02

MORTONS urbansolutions
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Project Coordination

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DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ 4706	DATE 03-03-23

DRAWING NUMBER	REV
41901-01-421	C

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SEQ CODE SEWER NOTES

SEQ CODE NOTES COPIED DIRECTLY FROM DRAWING SEQ-SEW-1101-3.

VEGETATION PROTECTION

A. TREES LOCATED ALONG THE FOOTPATH SHALL BE, TRANSPLANTED PRIOR TO CONSTRUCTION, OR REPLACED IF DESTROYED.
B. WHEN WORKING WITHIN 4m OF TREES, RUBBER OR HARDWOOD GIRDLES SHALL BE CONSTRUCTED WITH 1.8 m BATTENS CLOSELY SPACED & ARRANGED VERTICALLY FROM GROUND LEVEL. GIRDLES SHALL BE STRAPPED TO TREES PRIOR TO CONSTRUCTION & REMAIN UNTIL COMPLETION.
C. TREE ROOTS SHALL BE TUNNELLED UNDER, RATHER THAN SEVERED. IF ROOTS ARE SEVERED THE DAMAGED AREA SHALL BE TREATED WITH A SUITABLE FUNGICIDE. CONTACT RELEVANT COUNCIL ARBORIST FOR FURTHER ADVICE.
D. ANY TREE LOPPING REQUIRED SHOULD BE UNDERTAKEN BY AN APPROVED ARBORIST.

SOIL

A. TOPSOIL & SUBSOIL SHALL BE STOCKPILED SEPARATELY.
B. CARE SHALL BE TAKEN TO PREVENT SEDIMENT FROM ENTERING THE STORMWATER SYSTEM. THIS MAY INVOLVE PLACING APPROPRIATE SEDIMENT CONTROLS AROUND STOCKPILES.
C. IF ACID SULPHATE SOILS EXIST IN THE WORKS AREA. THE CONTRACTOR MUST PREPARE A RISK ASSESSMENT BASED ON THE QUEENSLAND ACID SULPHATE SOIL TECHNICAL MANUAL & MANAGE THE ACID SULPHATE SOILS AS PER THE MANUAL.

CREEK CROSSINGS

A. SILTATION CONTROL MEASURES SHALL BE PLACED DOWNSTREAM OF ANY EXCAVATION WORK.
B. APPROPRIATE SEDIMENT CONTROLS SHALL BE USED TO PREVENT SEDIMENT FROM ENTERING THE CREEK.
C. NO SOIL SHALL BE STOCKPILED WITHIN 5 m OF THE CREEK.

REHABILITATION

A. PREDISTURBANCE SOIL PROFILES & COMPACTION LEVELS SHALL BE REINSTATED.
B. PREDISTURBANCE VEGETATION PATTERNS SHALL BE RESTORED.

SAFETY

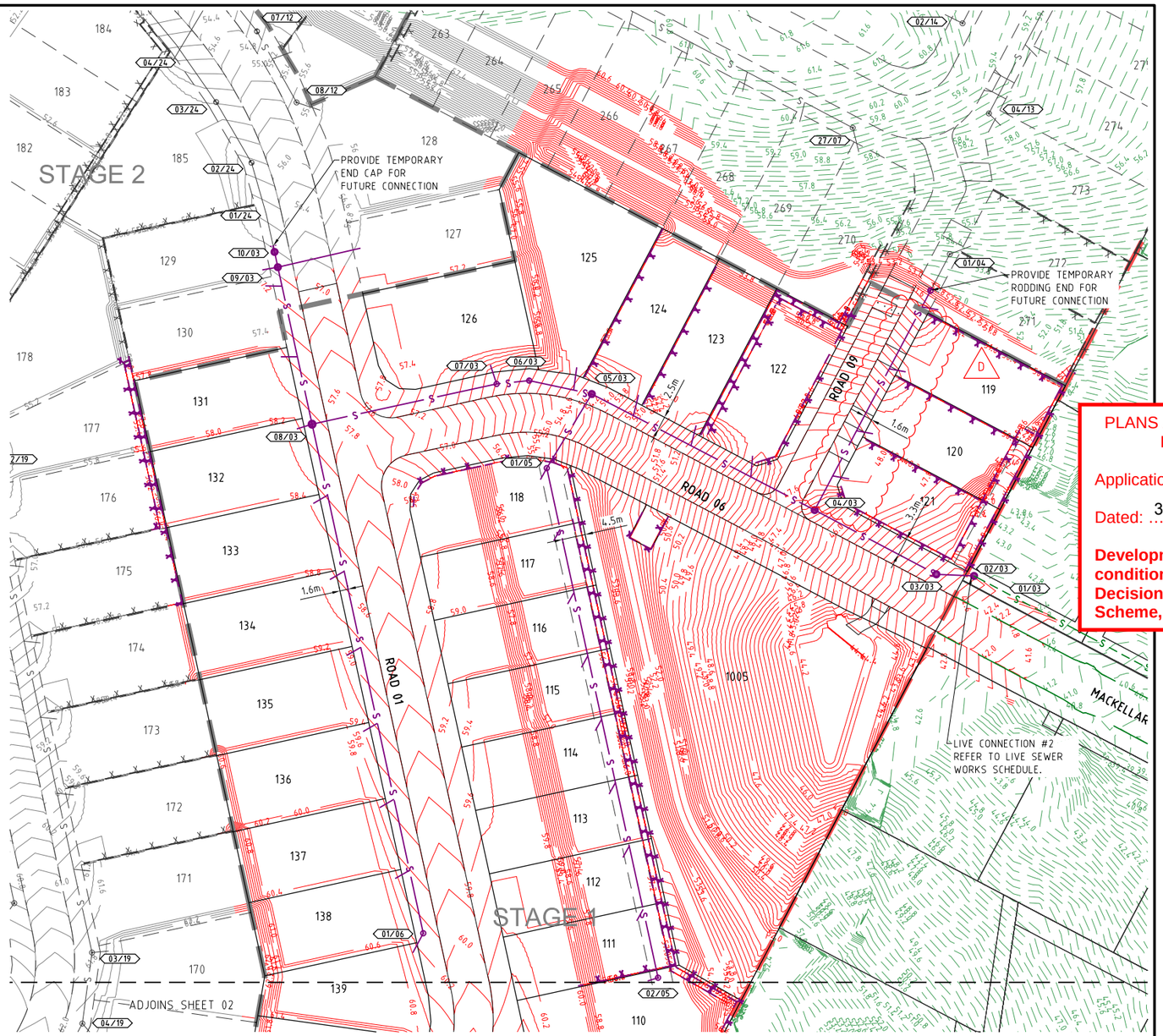
A. THE DESIGN & CONSTRUCTION OF THE WORKS SHALL COMPLY WITH ALL QUEENSLAND LEGISLATION.

GENERAL

1. ALL WORK & MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT SOUTH EAST QUEENSLAND SEWERAGE CODE SPECIFICATIONS & STANDARDS.
2. UNLESS SPECIFIED OTHERWISE ALL MATERIALS & WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
3. THE CONSTRUCTION OF THE SEWERAGE WORK SHOWN ON THIS DRAWING SHALL BE SUPERVISED BY AN ENGINEER WHO HAS RPEQ REGISTRATION. SEWERAGE WORKS NOT COMPLYING WITH THIS REQUIREMENT WILL NOT BE PERMITTED TO CONNECT INTO THE SEQ SERVICE PROVIDER SEWERAGE SYSTEM.
4. ALL WORK ASSOCIATED WITH LIVE SEWERS OR MAINTENANCE HOLES SHALL BE CARRIED OUT BY DEVELOPER'S APPROVED CONTRACTOR UNDER THE SUPERVISION OF SEQ'S AGENT AT THE DEVELOPER'S COST.
5. ALL PIPES & MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE "ACCEPTED PRODUCTS & MATERIALS" LIST.
6. EACH ALLOTMENT SHALL BE SERVED BY A DN100 PVC PROPERTY CONNECTION. FOR ALLOTMENTS OTHER THAN SINGLE RESIDENTIAL, A DN150 PVC PROPERTY CONNECTION SHALL BE PROVIDED.
7. PROPERTY CONNECTIONS SHALL BE LOCATED WITHIN THE PROPERTY AS SHOWN IN THE DRAWINGS.
8. PROPERTY CONNECTION BRANCHES SHALL EXTEND INTO THE PROPERTY A MINIMUM OF 300 mm & A MAXIMUM OF 750 mm. UNITYWATER REQUIRES MINIMUM EXTENSION OF 500 mm INTO PROPERTY.
9. WHERE PIPES ARE LAID IN FILL, THE FILLING SHALL BE CARRIED OUT IN LAYERS NOT EXCEEDING 300 mm (LOOSE) IN DEPTH & SHALL BE COMPACTED UNTIL THE COMPACTION IS NOT LESS THAN 95% OF THE MATERIALS MAXIMUM COMPACTION WHEN TESTED IN ACCORDANCE WITH A.S. 1289 (MODIFIED COMPACTION). TESTING SHALL BE CARRIED OUT AFTER EACH ALTERNATE LAYER. IN ALL SUCH CASES APPROVAL OF CONSTRUCTED SEWERS WILL NOT BE ISSUED BY THE SEQ SERVICE PROVIDER UNLESS CERTIFICATES ARE PRODUCED CERTIFYING THAT THE REQUIRED COMPACTION HAS BEEN ACHIEVED.
10. WHERE SEWERS HAVE A GRADE OF 1 IN 20 OR STEEPER,BULKHEADS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SEQ SEWER CODE.
11. THE CONTRACTOR SHALL VERIFY THE LOCATION & DEPTH OF EXISTING SERVICES WITH RELEVANT AUTHORITIES BEFORE COMMENCING WORKS.
12. SEWERS SHALL BE DISUSED /ABANDONED IN ACCORDANCE WITH PROCEDURES SET OUT IN THE SEQ SEWER CODE.
13. BENCH MARK & LEVELS TO AHD.
14. ~~THE EXISTING DWELLING ON LOT 3, REFER SEQ-SEW-1100, SERVED BY A SEPTIC SYSTEM, SHALL BE CONNECTED TO THE NEW SEWER BY A LICENCED PLUMBER IN ACCORDANCE WITH THE RELEVANT STATUTORY & COUNCIL REQUIREMENTS. THE SEPTIC SYSTEM, INCLUDING TRENCHES,SHALL BE REMOVED AT THE DEVELOPER'S COST. ALL FIXTURES SHALL BE UPGRADED IF REQUIRED BY PLUMBING CODE.~~ STANDARD NOTE NOT APPLICABLE & THEREFORE DELETED.
15. EXISTING ALLOTMENTS REQUIRING A PROPERTY CONNECTION FROM EXISTING SEWERS SHALL BE PROVIDED BY THE SEQ SERVICE PROVIDER AT THE DEVELOPERS COST.

PROJECT SPECIFIC SEWER NOTES

a. ALL SEWER MAINS TO BE AS PER SEWER PIPE SPECIFICATIONS TABLE.
b. NOTWITHSTANDING THE STANDARD SEQ NOTES ABOVE, ALL MATERIALS & WORKS MUST BE IN ACCORDANCE WITH THE SERVICE PROVIDER'S APPROVAL CONDITIONS & THE SEQ WS&S D&C CODE.
c. THE CONTRACTOR IS TO INCLUDE ROCK EXCAVATION AS PART OF THEIR SEWER RATES UNLESS SCHEDULED OTHERWISE WITHIN THE CONTRACT.
d. THE CONTRACTOR TO PROVIDE CALCAREOUS CONCRETE WHERE SPECIFIED IN THE SEQ CODE BY THE RELEVANT AUTHORITY.
e. WATER & ELECTRICAL CROSSING LOCATIONS ARE INDICATIVE ONLY. REFER TO PLANS TO DETERMINE PRECISE CROSSING LOCATIONS. WHERE SERVICE INDICATES CLASH WITH SEWER, SEWER TO TAKE PRECEDENCE, SERVICE TO BE CONSTRUCTED OVER OR UNDER SEWER ACCORDING TO SUPERINTENDENT'S INSTRUCTION
f. ALL BENDS TO BE LONG RADIUS BEND TO MEET MANUFACTURER'S MINIMUM RADIUS REQUIREMENTS U.N.O.
g. CONTRACTOR TO VERIFY DOWNSTREAM EXISTING PIPE LEVELS PRIOR TO COMMENCEMENT OF WORKS ON-SITE.
h. PROPERTY CONNECTIONS HAVE BEEN DESIGNED TO CONTROL THE REQUIRED SERVICE AREA OF EACH LOT AT A GRADE OF 1:60 & A MAXIMUM DEPTH OF PROPERTY CONNECTION AT 1.5m. UNLESS OTHERWISE STATED.
i. CONTRACTOR TO PAY ALL FEES & CHARGES ASSOCIATED WITH CONNECTIONS.

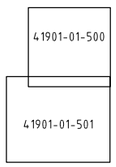


ALL ENVIRONMENT PROTECTION MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY CONSTRUCTION WORK, INCLUDING CLEARING, COMMENCING.

SEWER PIPE SPECIFICATIONS

SEWER MAIN LOCATION	PIPE MATERIAL SPECIFICATION
GRAVITY VERGE	PVC-U SN8
GRAVITY ROAD CROSSING	PVC-U SN8
HOUSE CONNECTIONS	PVC-U SN6

SHEET LAYOUT



LEGEND

- EXISTING SEWER
- EXISTING RISING MAIN
- EXISTING KERB (INVERT)
- EXISTING PROPERTY LINE
- EXISTING RETAINING WALL
- EXISTING CONTOURS
- FUTURE SEWER
- FUTURE RISING MAIN
- FUTURE KERB (INVERT)
- FUTURE PROPERTY LINE
- FUTURE RETAINING WALL
- FUTURE CONTOURS
- SITE BOUNDARY
- STAGE BOUNDARY
- PROPOSED KERB (INVERT)
- PROPOSED PROPERTY LINE
- PROPOSED RETAINING WALL
- DESIGN CONTOURS
- PROPOSED SEWER
- PROPOSED RISING MAIN
- SEWER MANHOLE
- SEWER RODDING END
- SEWER BEND
- SEWER MAINTENANCE SHAFT
- SEWER END CAP
- SEWER PUMP STATION

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SERVICE PROVIDER AND CONSTRUCTOR LIVE SEWER WORKS SCHEDULE

No.	Description	Dia. Sewer	MH No.	MH/MS Type	Cover Type	Lot no	F.S.L	E.S.L	I.L	Depth to invert
1(A)	CONTRACTOR TO BREAK INTO EXISTING MAINTENANCE HOLE 01/01 AND CONSTRUCT SEWER MAIN AND PLUG PRIOR TO START OF CONSTRUCTION.	150	EXISTING 1/01	MH	B	LOT 19 ON SP292346	48.535	48.535	47.690	0.845
1(B)	CONTRACTOR TO LAY NEW LINES 1 AND 2 AFTER CLEANSING, TESTING AND INSPECTING, NOTIFY GOLD COAST WATER AND WASTE.	150	1/01	MH			48.535	48.535	47.690	0.845
1(C)	GOLD COAST WATER AND WASTE TO CONFIRM THE REMOVAL OF PLUG LINE 1 AND MAKE LIVE CONNECTIONS AFTER SUCCESSFUL "ON MAINTENANCE" INSPECTION.									
2(A)	CONTRACTOR TO BREAK INTO EXISTING MAINTENANCE HOLE 02/03 AND CONSTRUCT SEWER MAIN AND PLUG PRIOR TO START OF CONSTRUCTION.	150	EXISTING 02/03	MH	B	LOT 19 ON SP292346	42.710	42.710	40.760	1.950
2(B)	CONSTRUCTOR TO LAY NEW LINE 3 AFTER CLEANSING, TESTING AND INSPECTING, NOTIFY GOLD COAST WATER AND WASTE.									
2(C)	GOLD COAST WATER AND WASTE TO CONFIRM THE REMOVAL OF PLUG LINE 3 AND MAKE LIVE CONNECTIONS AFTER SUCCESSFUL "ON MAINTENANCE" INSPECTION.									

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

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REV	DATE	DESCRIPTION	INT
D	19-06-24	DRIVEWAYS ADDED	BL
C	23-02-24	CONTOURS & RETAINING WALLS LOT 110 AMENDED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

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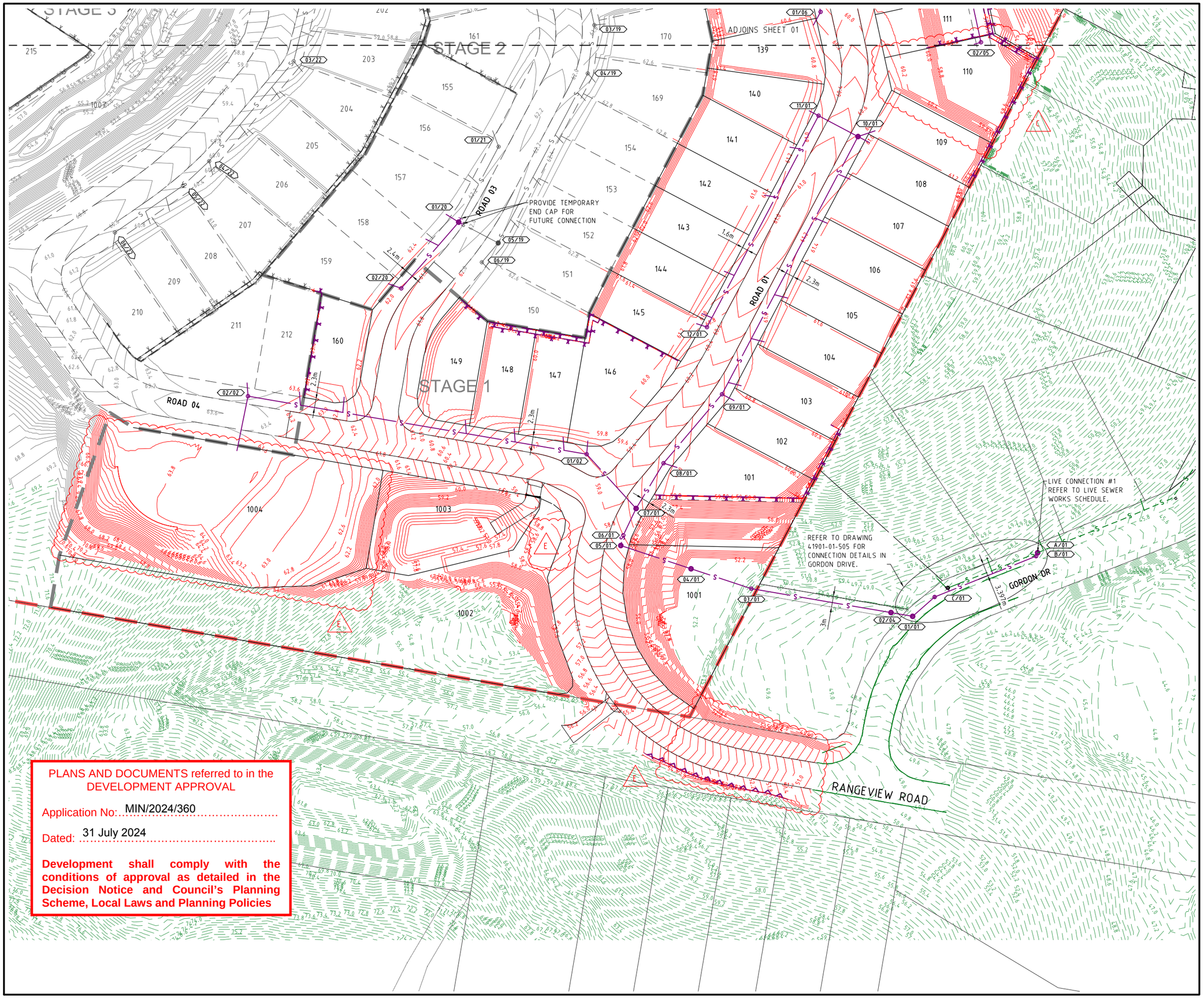
SEWER RETICULATION PLAN SHEET 01

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DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ	4706
		DATE	03-03-23

DRAWING NUMBER 41901-01-500 REV D

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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

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NORTH

0 5 10 15 20 25m

Scale 1:500 - A1 (1:1000 - A3)

REV	DATE	DESCRIPTION	INT
E	19-06-24	PMT REMOVED & CONTOURS UPDATED	BL
D	06-03-24	SEWER AMENDED	MLJ
C	23-02-24	CONTOURS & RETAINING WALLS LOT 110 AMENDED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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DRAWING TITLE

SEWER RETICULATION PLAN SHEET 02

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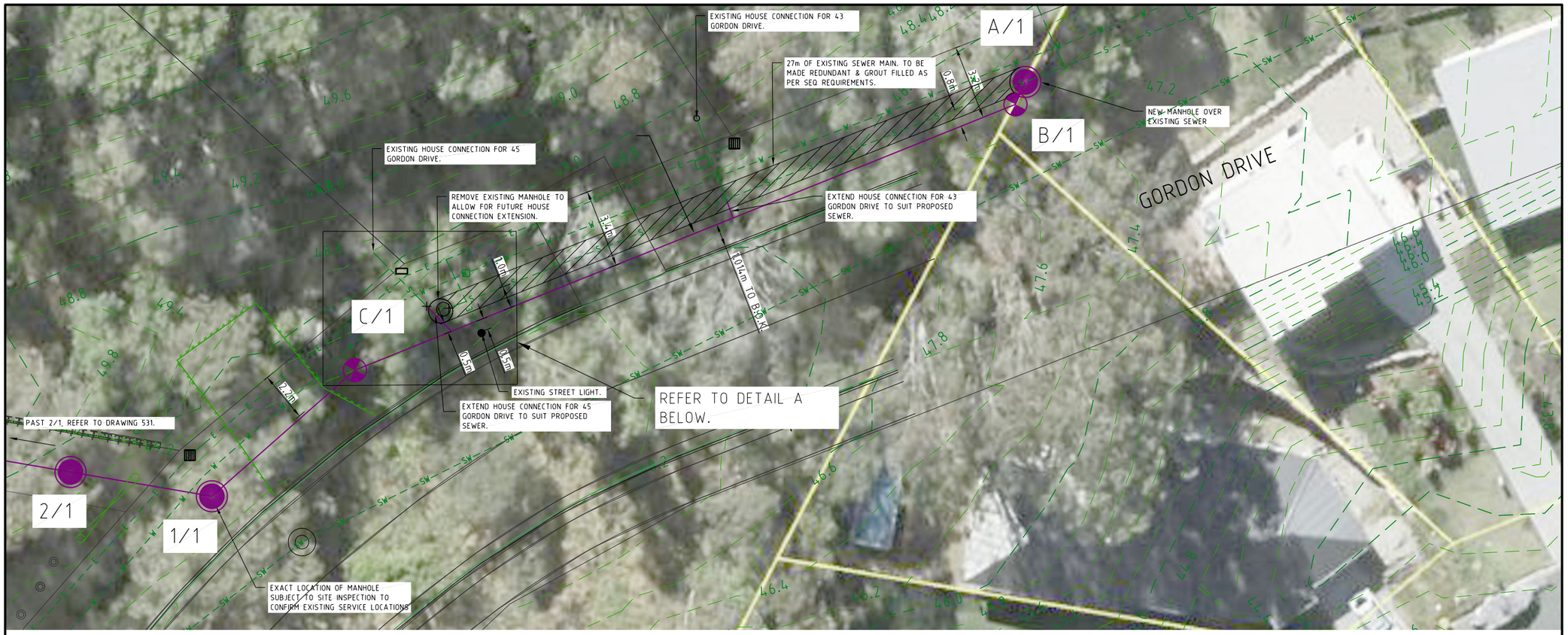
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Southport QLD 4215

Gold Coast Office
Suite 9, 19 Short St
Southport QLD 4215

DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ 4706	DATE 03-03-23

DRAWING NUMBER	REV
41901-01-501	E

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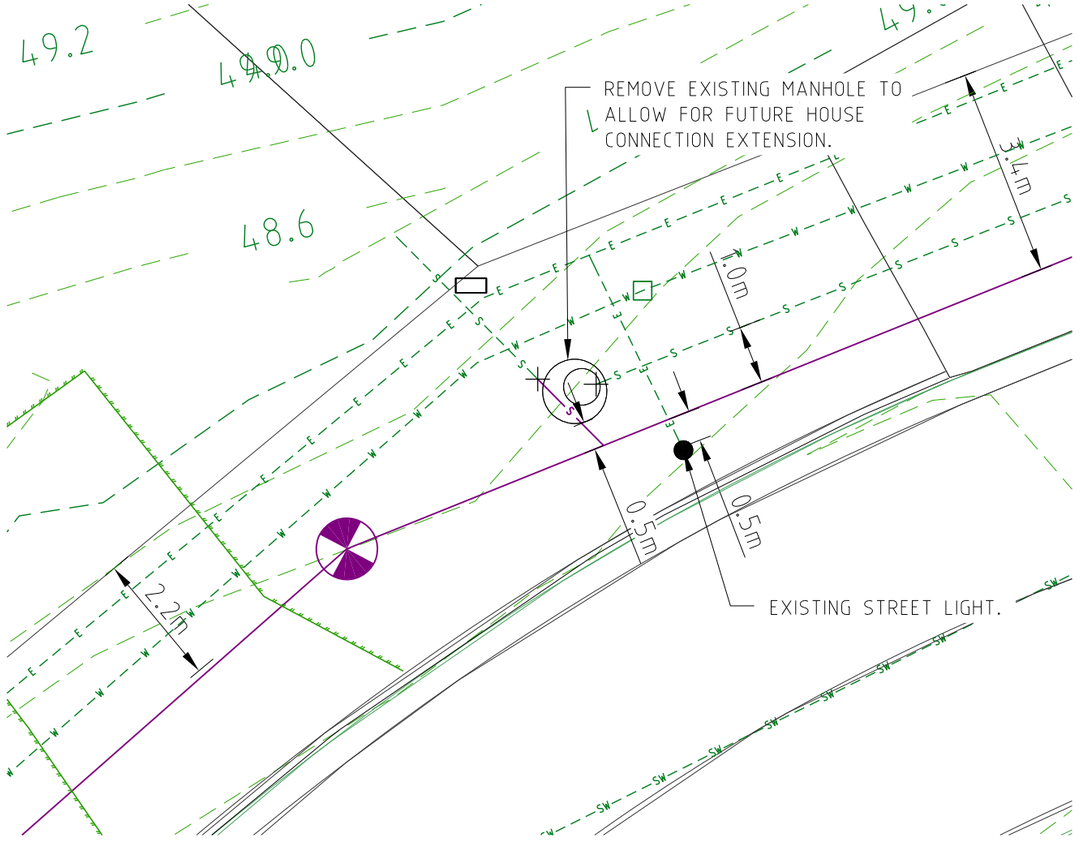


PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

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Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



DETAIL A.

0 0.5 1.0 1.5 2.0 2.5m

Scale 1:50 - A1 (1:100 - A3)

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION
LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 1 2 3 4 5m

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

ISSUES	DATE	
TENDER	....	
COUNCIL	...	
CONSTRUCTION	..	

PRE	DATE	AMENDMENT
B	06-03-24	ISSUE FOR CONSTRUCTION
A	15-02-24	ISSUE FOR INFORMATION

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING

zone Planning Group

DRAWING TITLE

GORDON DRIVE
SEWER RETICULATION
CONNECTION DETAILS

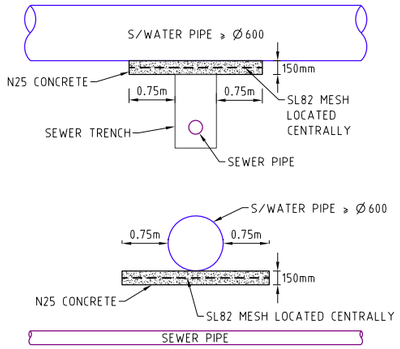
MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination
MUS Pty Ltd T/As:
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Gold Coast Office
Suite 9, 19 Short St
Southport QLD 4215

DESIGNED	RB	DRAWN	RB
APPROVED		RPEQ 4706	DATE 06-03-24

DRAWING NUMBER 41901-01-505

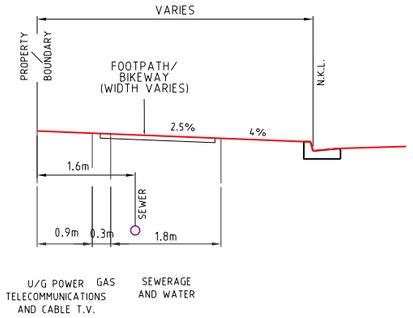
AMEND. B

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BRIDGING DETAILS FOR STORMWATER PIPES ≥ Ø600

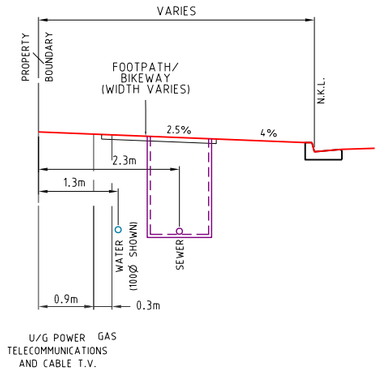
NOT TO SCALE



G.C.C.C. TYPICAL SERVICES SEWER RETICULATION ONLY

SCALE 1:50 - A1 (1:100 - A3)

1. PUBLIC UTILITIES ALLOCATIONS ARE MEASURED FROM THE REAL PROPERTY BOUNDARY.
2. LIGHT POLE, TREE ALLOCATIONS AND FOOTPATHS ARE MEASURED FROM THE NOMINAL KERB LINE.



G.C.C.C. TYPICAL POTABLE WATER AND SEWER RETICULATION (SAME SIDE)

SCALE 1:50

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

0 0.5 1.0 1.5 2.0 2.5m
Scale 1:50 - A1 (1:100 - A3)

REV	DATE	DESCRIPTION	INT
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT + BENNETT

DRAWING TITLE

SEWER RETICULATION DETAILS

MORTONS urbansolutions
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Civil Engineering
Project Coordination
MUS Pty Ltd T/As:
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Southport QLD 4215

DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER: 41901-01-510
REV: A

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SEWER STRUCTURE LIDS

D	TRAFFICABLE LID
B	NON-TRAFFICABLE LID
M	'M' PREFIX DESIGNATES BOLT DOWN LID

RIGS STRUCTURE TYPES

P(x)	PRECAST CONCRETE SEWER MAINTENANCE STRUCTURE REFER TO SEQ STD DWG SEQ-SEW-1300-1
A	TYPE 'A' 1050mm DIA. MAINTENANCE STRUCTURE REFER TO SEQ STD DWGS SEQ-SEW-1307-1
B	TYPE 'B' 1200mm DIA. MAINTENANCE STRUCTURE REFER TO SEQ STD DWGS SEQ-SEW-1307-1
C	TYPE 'C' 1500mm DIA. MAINTENANCE STRUCTURE REFER TO SEQ STD DWGS SEQ-SEW-1307-1
J1	TYPE 'J1' MAINTENANCE STRUCTURE REFER TO SEQ STD DWGS SEQ-SEW-1314-2
BND	BEND REFER TO SEQ STD DWGS SEQ-SEW-1314-3
RE	RODDING END MAINTENANCE STRUCTURE REFER TO SEQ STD DWGS SEQ-SEW-1314-1
END	PROPRIETORY END CAP
PS	SEWER PUMP STATION REFER TO RELEVANT SEQ STD DWGS
RCM	RECEIVING MAINTENANCE STRUCTURE REFER TO RELEVANT SEQ STD SEWER PUMP STATION DWGS
G6	TYPE 'G6' TERMINAL MAINTENANCE SHAFT REFER TO SEQ STD DWGS SEQ-SEW-1314-1

RIGS STRUCTURE DROPS

V	STRAIGHT THROUGH SEWER REFER TO SEQ STD DWG SEQ-SEW-1303-1
W	OBLIQUE BACKDROP REFER TO SEQ STD DWG SEQ-SEW-1303-1
X	INTERNAL BACKDROP REFER TO SEQ STD DWG SEQ-SEW-1303-1
Y	EXTERNAL BACKDROP REFER TO SEQ STD DWG SEQ-SEW-1303-1

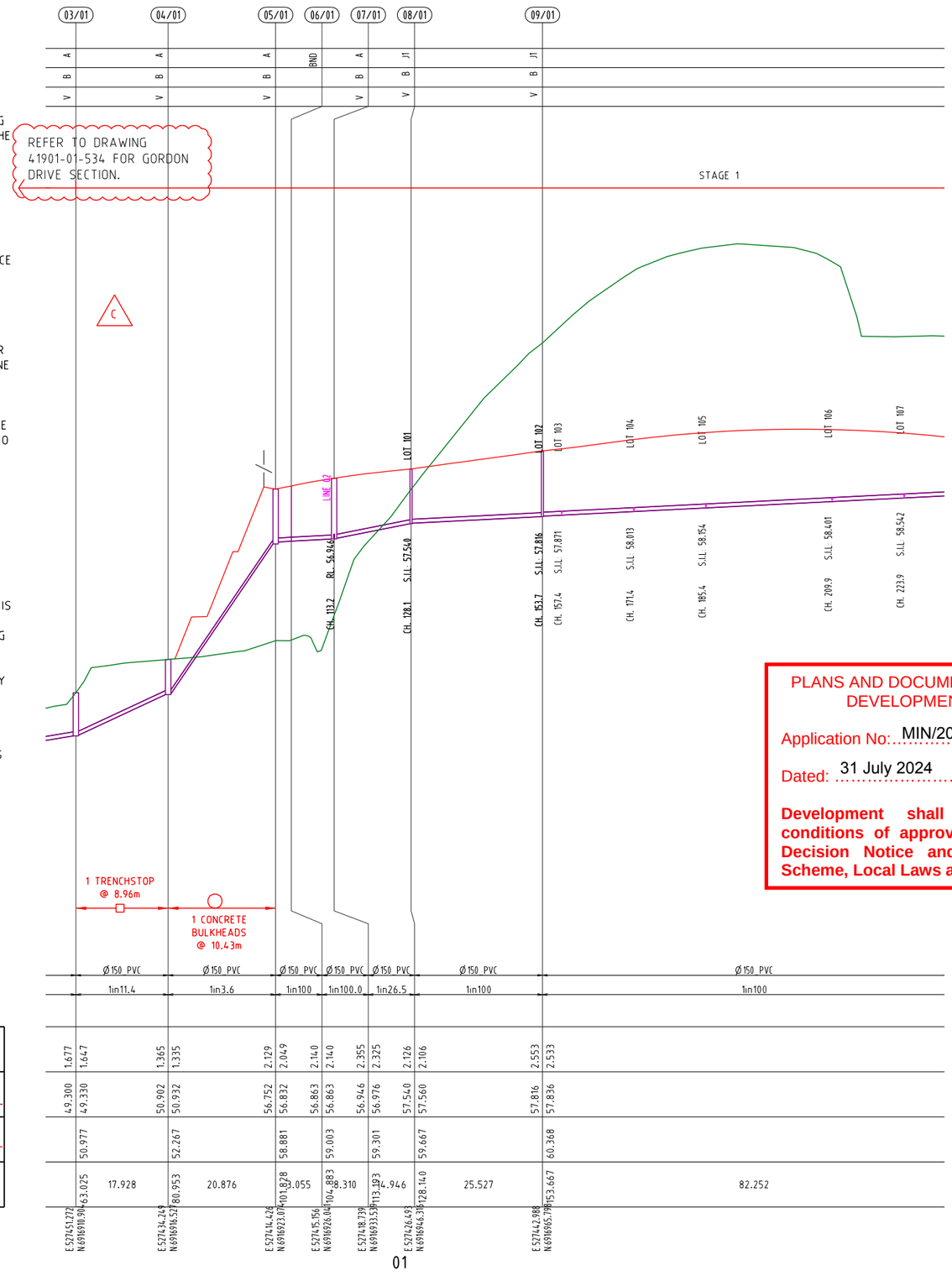
STRUCTURE TYPE
LID CLASS
DROP TYPE

* CONSTRUCT BRIDGING STRUCTURE SPANNING THE SEWER TRENCH REFER TYPICAL SECTIONS & DETAILS FOR BRIDGING STRUCTURE DETAILS

| TRENCHSTOPS, BULKHEADS & CONCRETE ENCASEMENTS TO BE INSTALLED IN ACCORDANCE WITH SEQ SEWER CODE

NOTES

1. IF SHOWN, WATER AND ELECTRICAL CROSSING LOCATIONS ARE INDICATIVE ONLY. REFER TO PLANS TO DETERMINE CROSSING LOCATIONS. WHERE SERVICE INDICATES CLASH WITH SEWER, SEWER TO TAKE PRECEDENCE, SERVICE TO BE CONSTRUCTED OVER OR UNDER SEWER ACCORDING TO SUPERINTENDENTS INSTRUCTION
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4. ALL EMBEDMENT TYPE IS TO BE TYPE 3 U.N.O
5. ALL BENDS TO BE LONG RADIUS BEND, 1.2m RADIUS MIN.
6. CONTRACTOR TO VERIFY DOWNSTREAM EXISTING PIPE LEVELS PRIOR TO COMMENCEMENT OF PIPEWORK
7. PROTECTIVE COATING IS TO BE INSTALLED TO MAINTENANCE STRUCTURES (WHERE REQUIRED) IN ACCORDANCE WITH CLAUSE 4.7.2 OF SEQ SEWERAGE CODE.
8. TRENCHSTOPS IN ACCORDANCE WITHSEQ-WAT-1209-1



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

DIAL BEFORE YOU DIG www.1100.com.au

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

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

0 1 2 3 4 5m
Vert. Scale 1:100 - A1 (1:200 - A3)

REV	DATE	DESCRIPTION	INT
C	06-03-24	NOTE ADDED.	MLJ
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT+BENNETT

DRAWING TITLE

SEWER RETICULATION
PROFILES
SHEET 01

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DESIGNED	RB
DRAWN	EMH
APPROVED	RPEQ 4706
DATE	03-03-23
DRAWING NUMBER	41901-01-530
REV	C

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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

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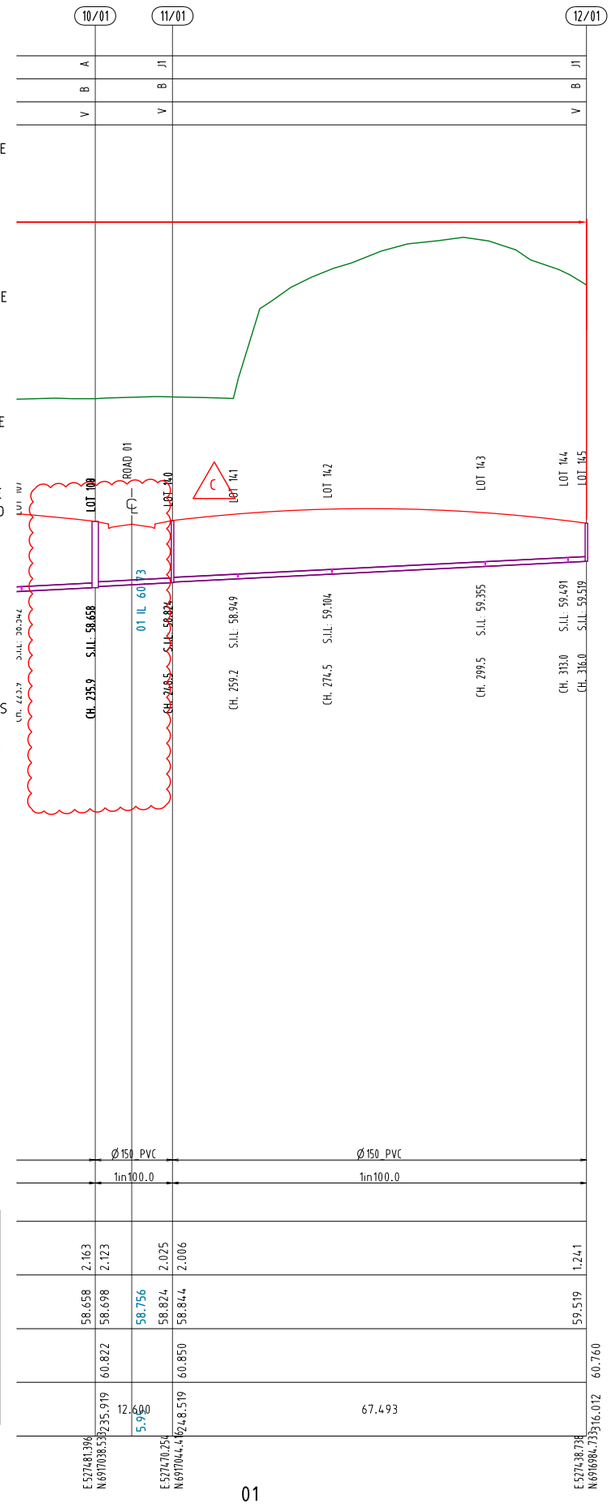
STRUCTURE TYPE
LID CLASS
DROP TYPE

* CONSTRUCT BRIDGING STRUCTURE SPANNING THE SEWER TRENCH REFER TYPICAL SECTIONS & DETAILS FOR BRIDGING STRUCTURE DETAILS

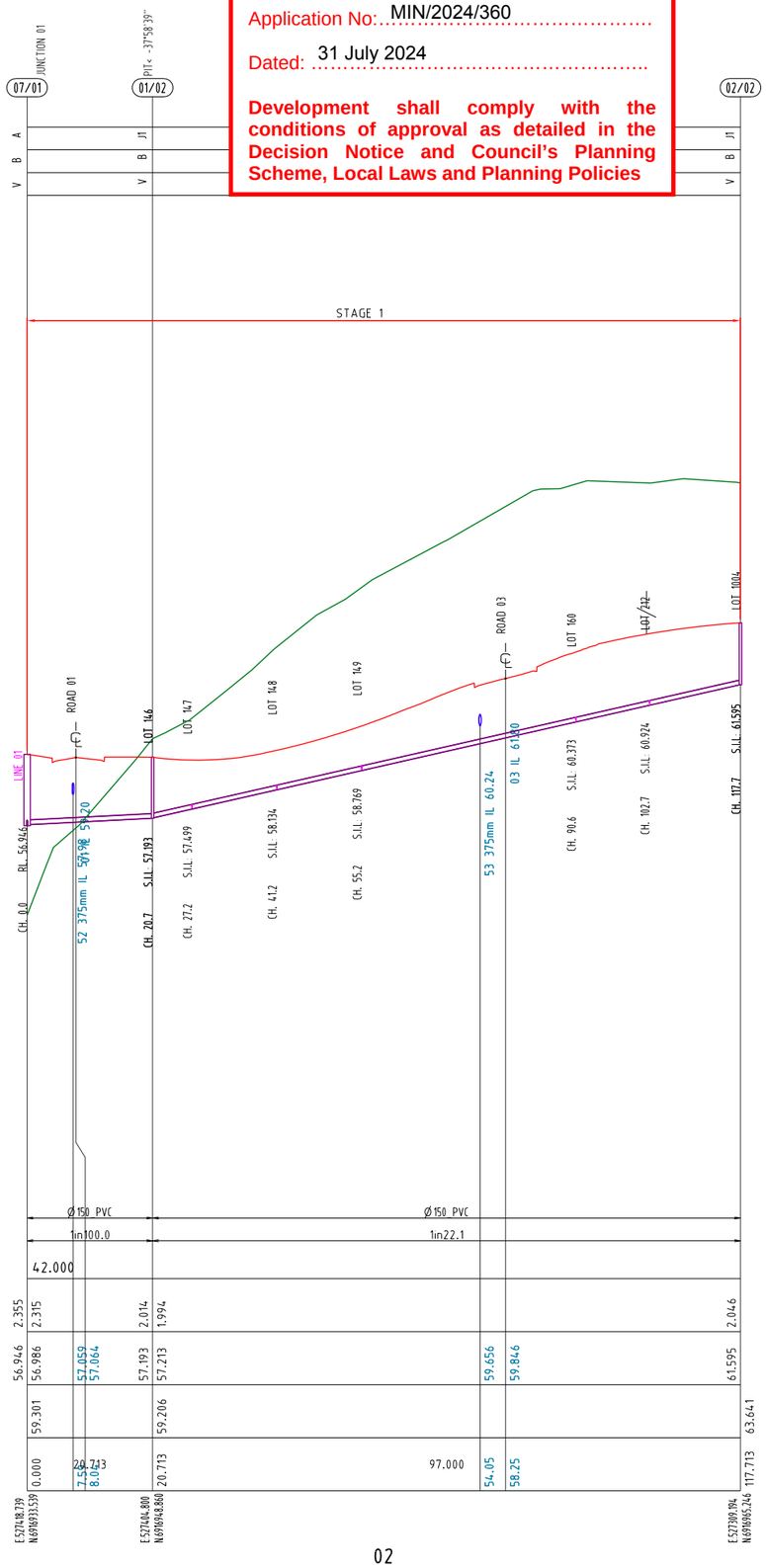
| TRENCHSTOPS, BULKHEADS & CONCRETE ENCASEMENTS TO BE INSTALLED IN ACCORDANCE WITH SEQ SEWER CODE

NOTES

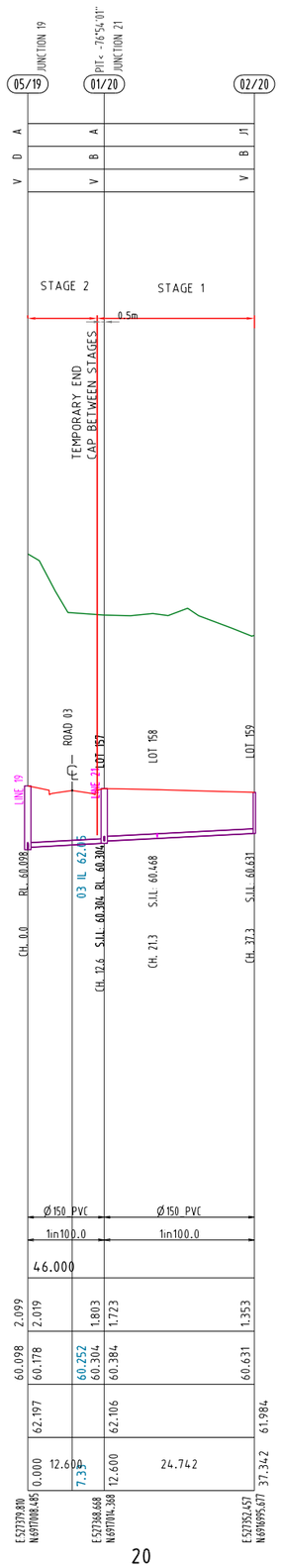
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8. TRENCHSTOPS IN ACCORDANCE WITHSEQ-WAT-1209-1



LINE NO. 01



02



20

PIPE DIAMETER (mm)
PIPE GRADE
DATUM R.L.

DEPTH TO INVERT	
PIPE INVERT LEVELS	
DESIGN SURFACE LEVELS	
CHAINAGE	

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

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

0 1 2 3 4 5m
Vert. Scale 1:100 - A1 (1:200 - A3)

REV	DATE	DESCRIPTION	INT
C	27-11-23	LOT NUMBER & CHAINAGE ADDED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT + BENNETT

DRAWING TITLE

SEWER RETICULATION
PROFILES
SHEET 02

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Urban & Regional Planning
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Gold Coast Office
Suite 9, 19 Short St
Southport QLD 4215

DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ	4706
		DATE	03-03-23

DRAWING NUMBER 41901-01-531 REV C

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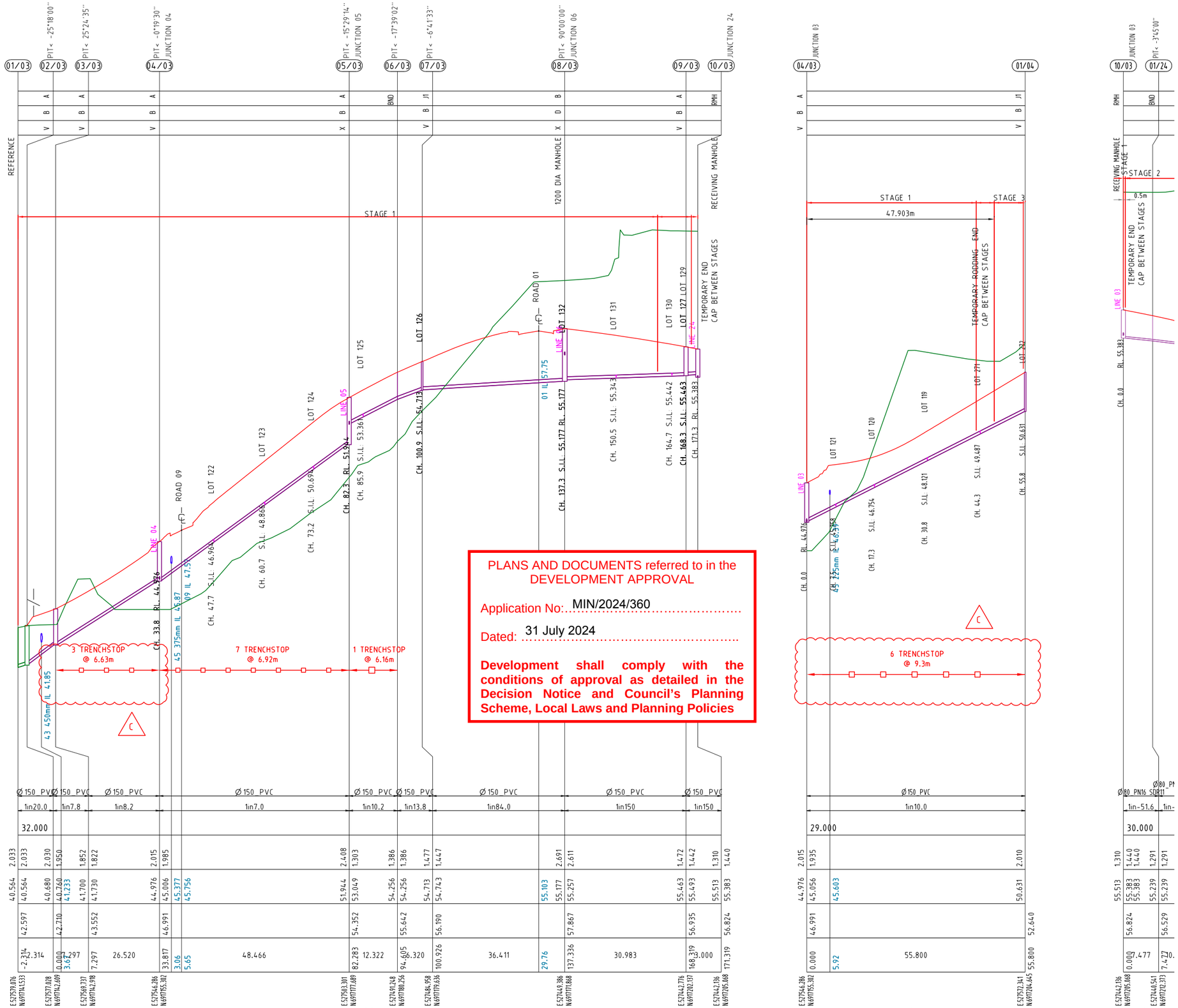
STRUCTURE TYPE
LID CLASS
DROP TYPE

* CONSTRUCT BRIDGING STRUCTURE SPANNING THE SEWER TRENCH REFER TYPICAL SECTIONS & DETAILS FOR BRIDGING STRUCTURE DETAILS

| TRENCHSTOPS, BULKHEADS & CONCRETE ENCASEMENTS TO BE INSTALLED IN ACCORDANCE WITH SEQ SEWER CODE

NOTES

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8. TRENCHSTOPS IN ACCORDANCE WITHSEQ-WAT-1209-1



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

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

0 1 2 3 4 5m
Vert. Scale 1:100 - A1 (1:200 - A3)

REV	DATE	DESCRIPTION	INT
C	27-11-23	TRENCH STOPS AMENDED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT + BENNETT

DRAWING TITLE

SEWER RETICULATION
PROFILES
SHEET 03

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DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ	4706
		DATE	03-03-23

DRAWING NUMBER 41901-01-532 REV C

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STRUCTURE TYPE
LID CLASS
DROP TYPE

* CONSTRUCT BRIDGING STRUCTURE SPANNING THE SEWER TRENCH REFER TYPICAL SECTIONS & DETAILS FOR BRIDGING STRUCTURE DETAILS

| TRENCHSTOPS, BULKHEADS & CONCRETE ENCASEMENTS TO BE INSTALLED IN ACCORDANCE WITH SEQ SEWER CODE

NOTES

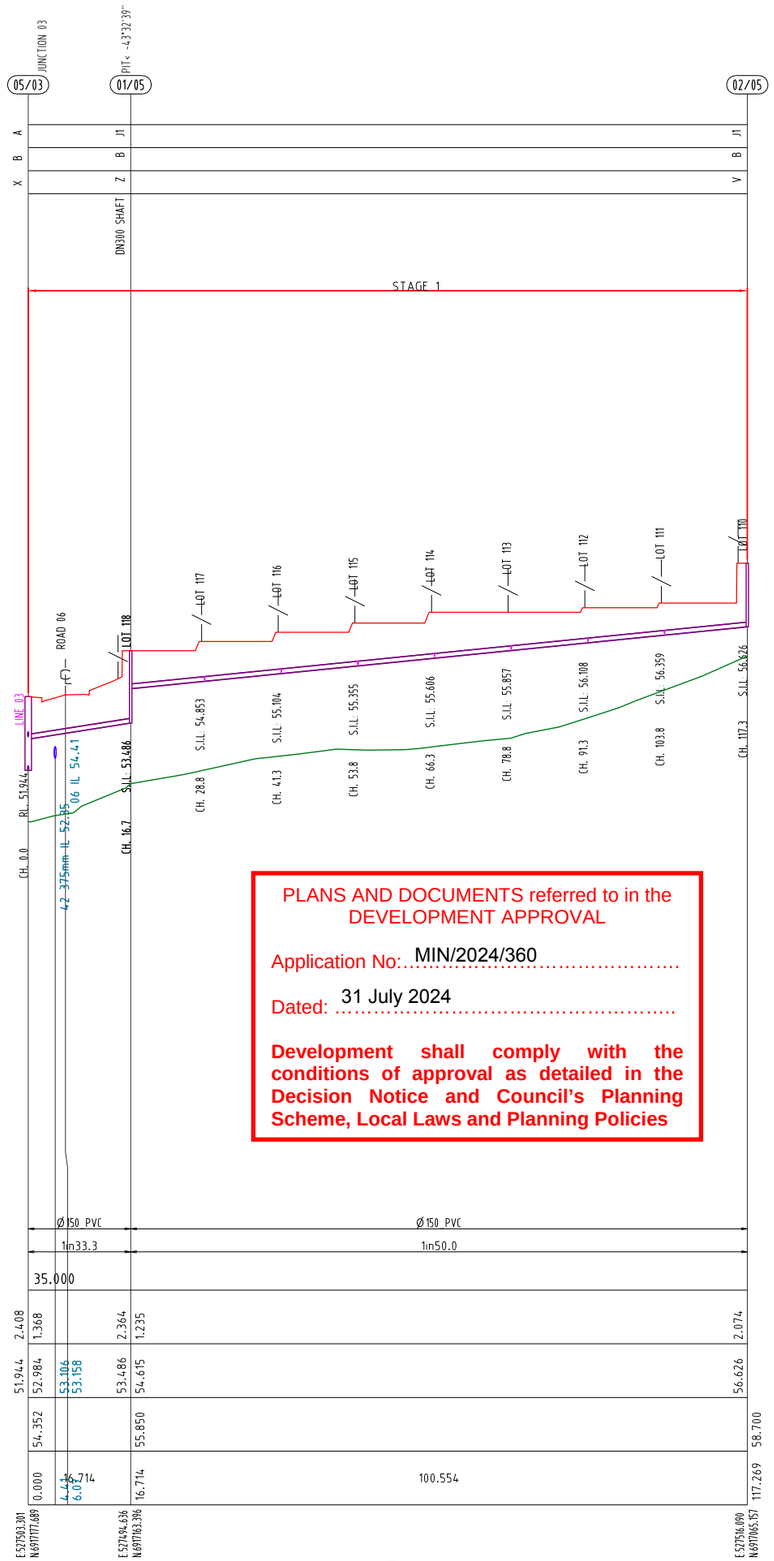
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8. TRENCHSTOPS IN ACCORDANCE WITHSEQ-WAT-1209-1

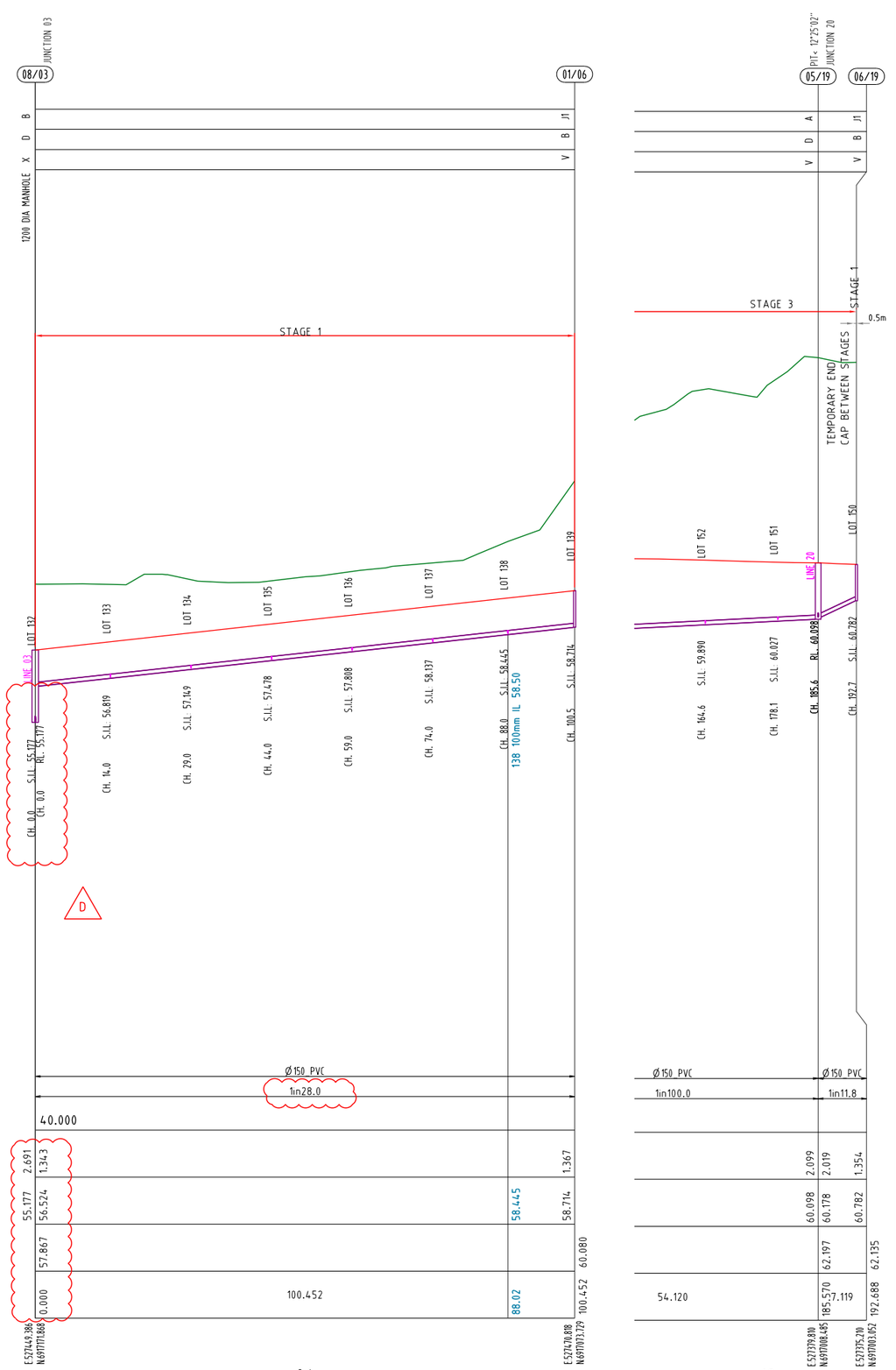
PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies





PROJECT NAME

COURTNEY DR
UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

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

0 1 2 3 4 5m
Vert. Scale 1:100 - A1 (1:200 - A3)

REV	DATE	DESCRIPTION	INT
D	19-06-24	SEWER PROFILE AMENDED	BL
C	27-11-23	LOT NUMBERS & CHAINAGES ADDED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT + BENNETT

DRAWING TITLE

SEWER RETICULATION
PROFILES
SHEET 04

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

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Southport QLD 4215

Gold Coast Office
Suite 9, 19 Short St
Southport QLD 4215

DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ 4706	DATE 03-03-23

DRAWING NUMBER 41901-01-533 | REV D

F:\Autocad Client\419 - HB Land\01 - Courtney Drive\Precinct-Stage 01\Engineering Drawings\Current\41901-01-530.dwg, SHEET 04, 24/06/2024 2:35:06 PM, 12

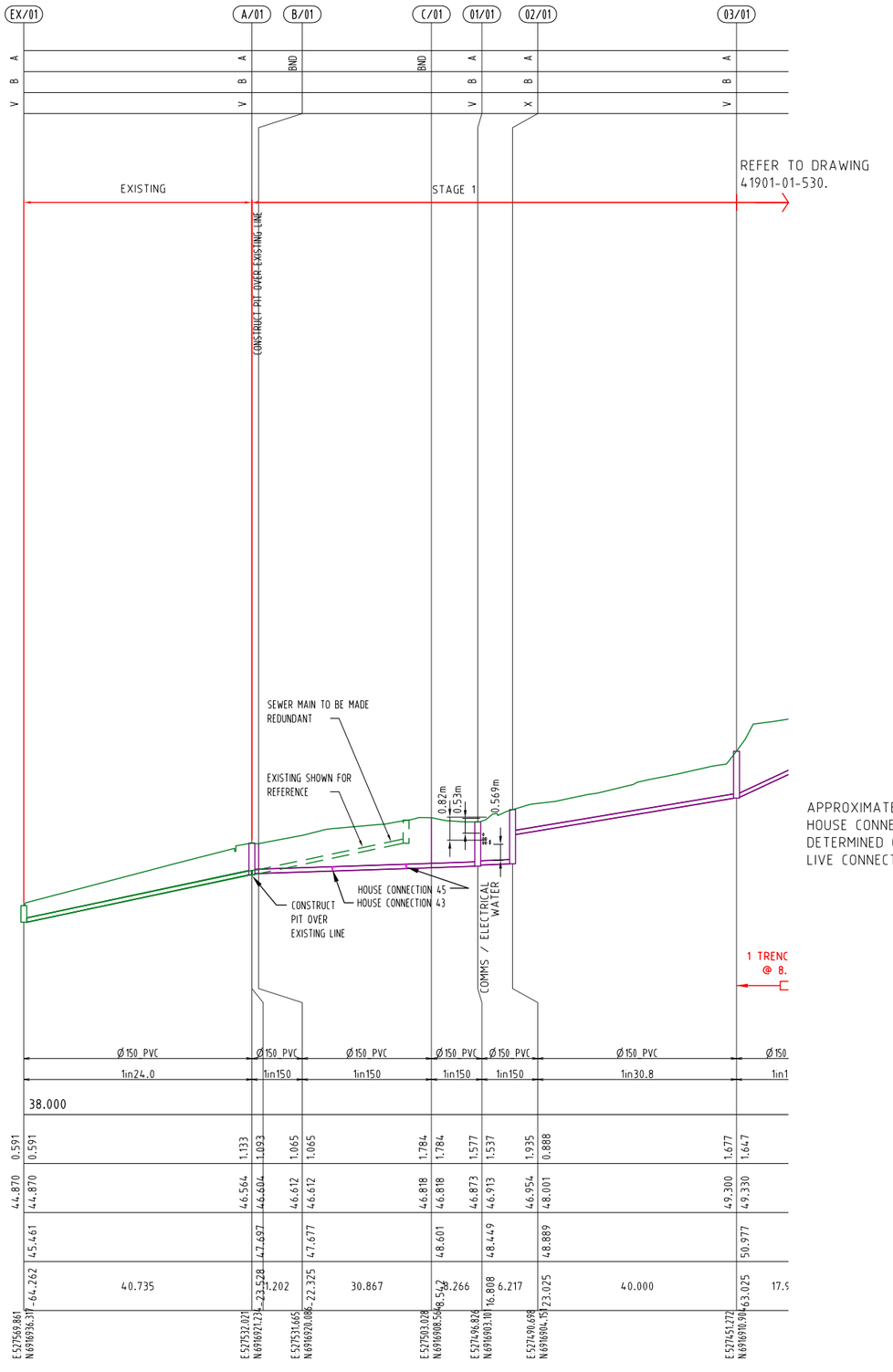
STRUCTURE TYPE
LID CLASS
DROP TYPE

* CONSTRUCT BRIDGING STRUCTURE SPANNING THE SEWER TRENCH REFER TYPICAL SECTIONS & DETAILS FOR BRIDGING STRUCTURE DETAILS

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8. TRENCHSTOPS IN ACCORDANCE WITHSEQ-WAT-1209-1



APPROXIMATE LOCATION OF HOUSE CONNECTION TO BE DETERMINED ONSITE DURING LIVE CONNECTION.

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

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

0 1 2 3 4 5m
Vert. Scale 1:100 - A1 (1:200 - A3)

REV	DATE	DESCRIPTION	INT
A	06-03-24	COUNCIL ISSUE	MLJ

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT + BENNETT

DRAWING TITLE

SEWER RETICULATION
PROFILES
SHEET 05

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

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Tel 07 5571 1099

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Southport QLD 4215

DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER	REV
41901-01-534	A

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RIGS STRUCTURE DROPS	
A	SEWER PROPERTY CONNECTION (STANDARD & EXTENDED) REFER TO SEQ STD DWGS SEQ-SEW-1104-1
B	SEWER PROPERTY CONNECTION (SLOPED CONNECTION) REFER TO SEQ STD DWGS SEQ-SEW-1104-1
D	SEWER PROPERTY CONNECTION (VERTICAL RISER) REFER TO SEQ STD DWG SEQ-SEW-1105-1
V	SEWER PROPERTY CONNECTION (STRAIGHT THROUGH SEWER) REFER TO SEQ STD DWG SEQ-SEW-1303-1
X	SEWER PROPERTY CONNECTION (INTERNAL BACKDROP) REFER TO SEQ STD DWG SEQ-SEW-1303-1
Z	RISER CONNECTION TO PORTION OF MAINTENANCE SHAFT

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

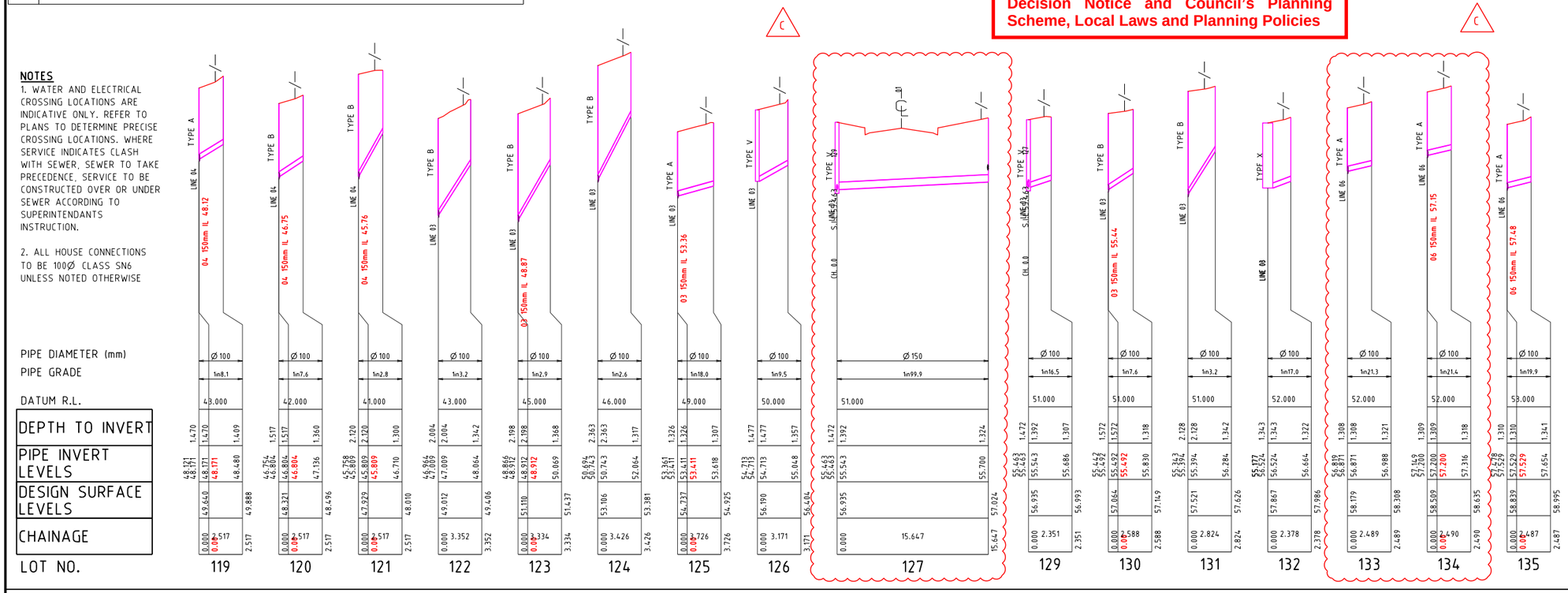
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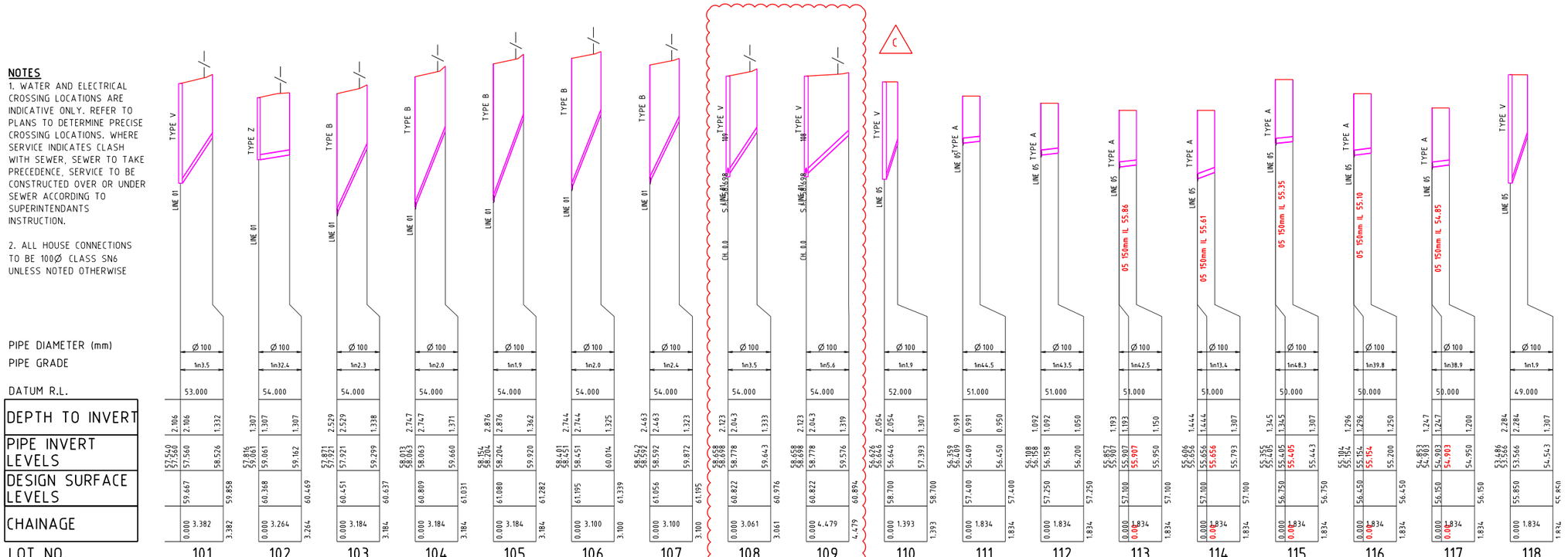
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NOTES

1. WATER AND ELECTRICAL CROSSING LOCATIONS ARE INDICATIVE ONLY. REFER TO PLANS TO DETERMINE PRECISE CROSSING LOCATIONS. WHERE SERVICE INDICATES CLASH WITH SEWER, SEWER TO TAKE PRECEDENCE, SERVICE TO BE CONSTRUCTED OVER OR UNDER SEWER ACCORDING TO SUPERINTENDANTS INSTRUCTION.

2. ALL HOUSE CONNECTIONS TO BE 100Ø CLASS SN6 UNLESS NOTED OTHERWISE





PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
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LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

0 2.5 5 7.5 10 12.5m
Horiz. Scale 1:250 - A1 (1:500 - A3)

0 0.5 1.0 1.5 2.0 2.5m
Vert. Scale 1:50 - A1 (1:100 - A3)

REV	DATE	DESCRIPTION	INT
C	27-11-23	HOUSE CONNECTIONS AMENDED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

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HOUSE CONNECTION
PROFILES
SHEET 01

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APPROVED		RPEQ	4706
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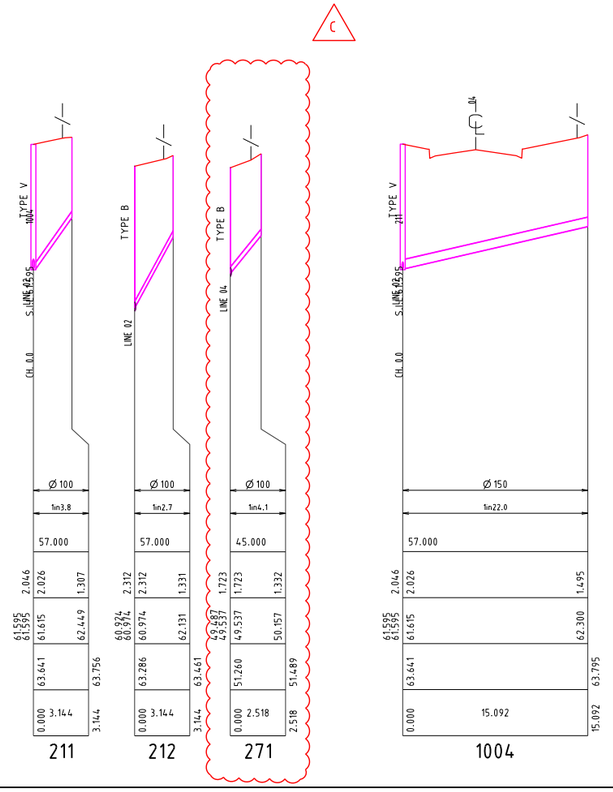
DRAWING NUMBER 41901-01-550 REV C

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NOTES

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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PIPE DIAMETER (mm)
PIPE GRADE
DATUM R.L.

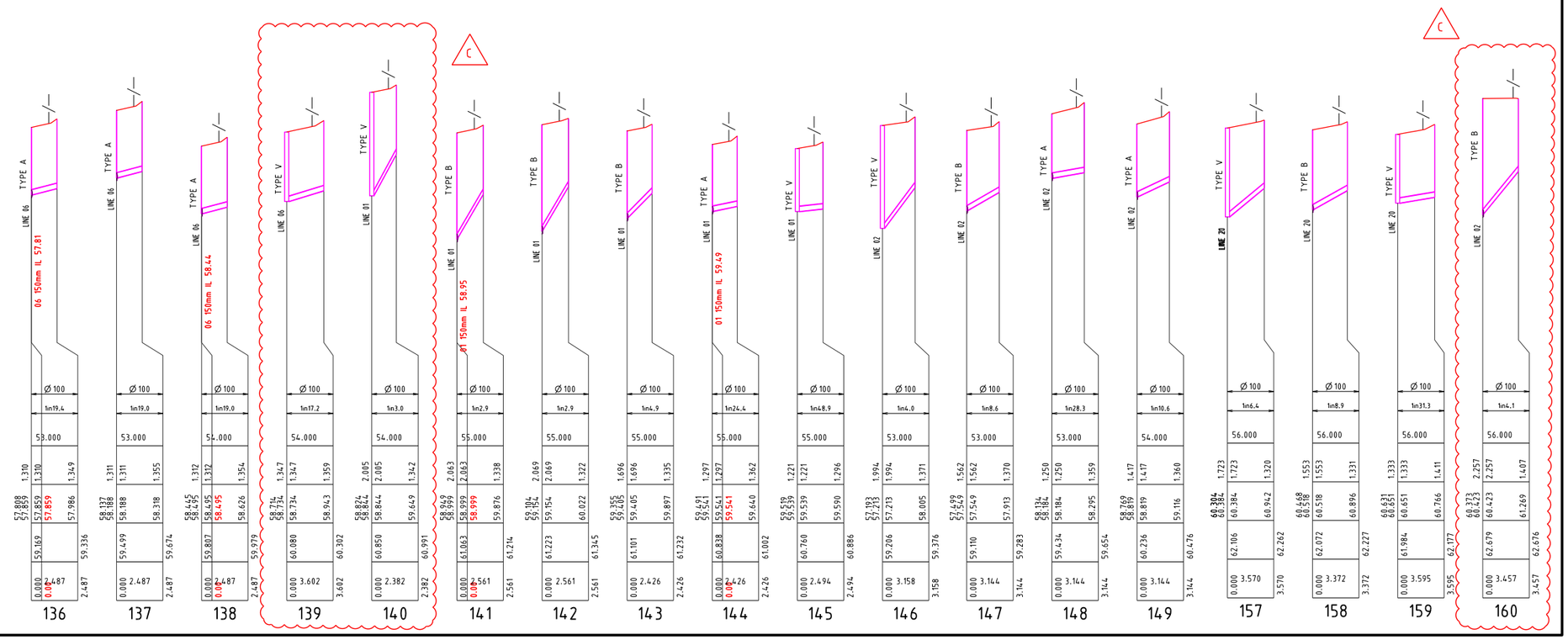
DEPTH TO INVERT
PIPE INVERT LEVELS
DESIGN SURFACE LEVELS
CHAINAGE

LOT NO.

NOTES

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PIPE DIAMETER (mm)
PIPE GRADE
DATUM R.L.

DEPTH TO INVERT
PIPE INVERT LEVELS
DESIGN SURFACE LEVELS
CHAINAGE

LOT NO.

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

0 2.5 5 7.5 10 12.5m
Horiz. Scale 1:250 - A1 (1:500 - A3)

0 0.5 1.0 1.5 2.0 2.5m
Vert. Scale 1:50 - A1 (1:100 - A3)

REV	DATE	DESCRIPTION	INT
C	27-11-23	HOUSE CONNECTION AMENDED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

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Robin Russell & ASSOCIATES PTY. LTD.
BENNETT + BENNETT

DRAWING TITLE

SEWER RETICULATION
HOUSE CONNECTION
PROFILES
SHEET 02

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DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ	4706
		DATE	03-03-23

DRAWING NUMBER 41901-01-551

REV C

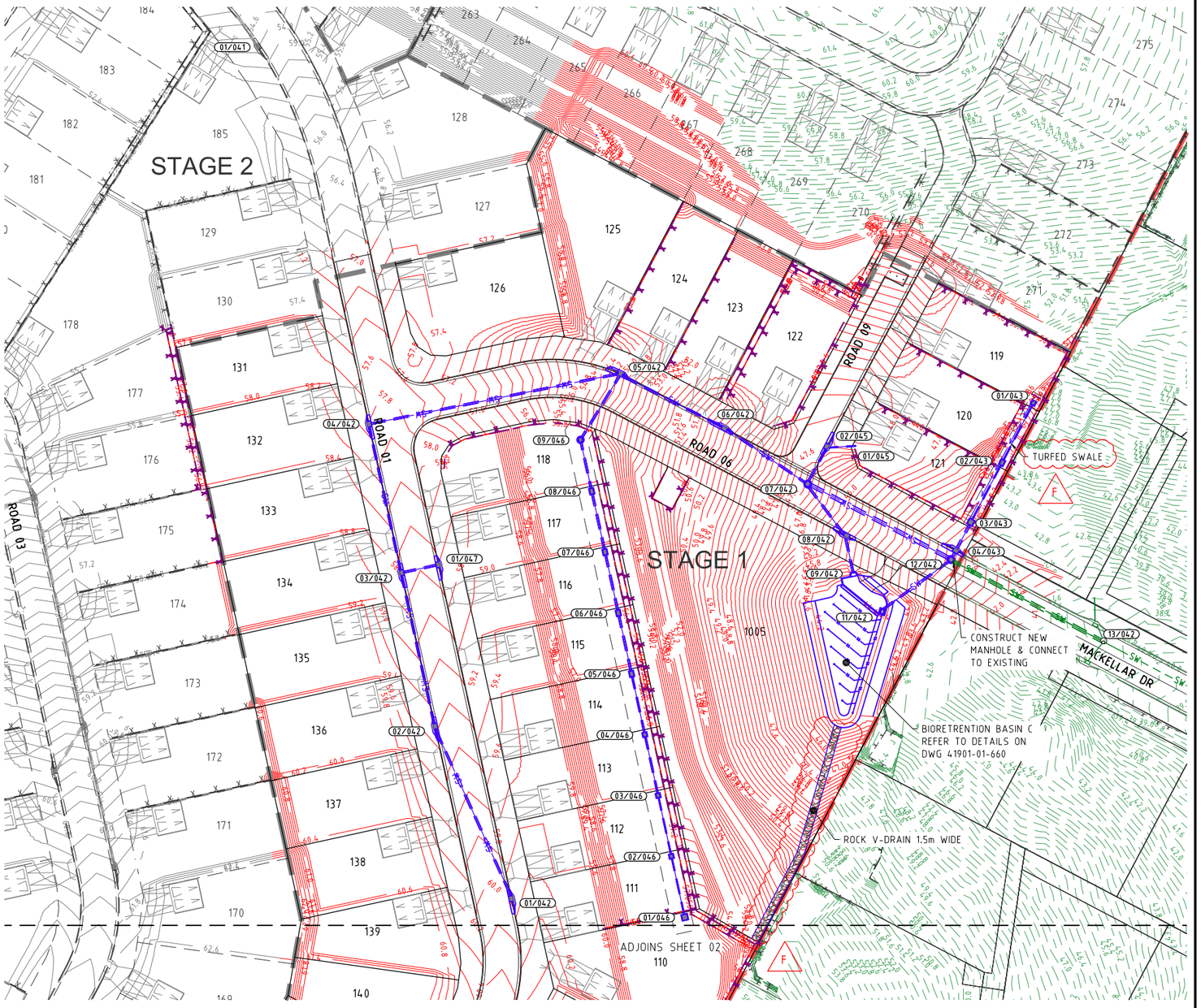
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STORMWATER

1. ALL FIELD GULLIES SHALL CONTAIN A 150mm DIA STUB 600mm BELOW GRADE LEVEL FOR FUTURE ROOFWATER DRAINAGE.
2. MANHOLES TO BE IN ACCORDANCE WITH IPWEAQ STANDARD DRAWING No DS-010, DS-015, DS-018, DS-019, DS-020, DS-021 OR STRUCTURAL DRAWINGS (STRUCTURAL DRAWINGS TAKE PRECEDENCE).
3. OUTLET HEADWALLS TO BE IN ACCORDANCE WITH LOCAL COUNCIL STANDARD DRAWINGS.
4. ALL HEADWALLS WITH A FALL GREATER THAN 900mm HIGH REQUIRE INSTALLATION OF PEDESTRIAN SAFETY FENCES.
5. PIPE JOINT TYPES TO BE IN ACCORDANCE WITH LOCAL AUTHORITY REQUIREMENTS.
6. ALL ALLOTMENTS TO BE GRADED SUCH THAT FUTURE ROOFWATER DRAINAGE DISCHARGES TO KERB OR TO PIPED DRAINAGE SYSTEM.
7. ALL PIPE 300mm DIA & GREATER SHALL BE CONSTRUCTED USING SRC OR FRC PIPES. CONTRACTOR MAY ELECT TO USE PVC PIPES WITHIN ALLOTMENTS FOR PIPES SMALLER THAN 300mm DIA.
8. FOR SETOUT DETAILS REFER TO 640 SERIES DRAWINGS (PROFILES & PIT DETAILS).
9. GULLY PITS TO BE IN ACCORDANCE WITH IPWEAQ STANDARD DRAWING No DS-060, DS-061, DS-062, DS-063. WHERE PITS ARE CONSTRUCTED AS DRAINWAY PITS, TO BE IN ACCORDANCE WITH IPWEAQ STANDARD DRAWINGS No 05-068.
10. LOTS WHICH CAN DRAIN OVERLAND FLOW TO THE STREET SWALE / DRAINAGE WITHOUT FLOWING THROUGH ADJOINING PROPERTIES NEED TO PROVIDE FOR Q100 OVERLAND FLOW TO THE ROAD
11. LOT EARTHWORKS DURING BUILDING CONSTRUCTION MUST NOT CHANGE FLOW PATH DIRECTION UNLESS IT IS REPLACED WITH ANOTHER FLOW PATH DRAINING TO THE ROAD SWALE / DRAINAGE.
12. THE CONTRACTOR IS TO INCLUDE ROCK EXCAVATION AS PART OF THEIR STORMWATER RATE.
13. PIPE CLASS - PIPE CLASSES/TRENCH BEDDING SHOWN ON THE DRAWINGS ARE SUBJECT TO THE CONTRACTORS PREFERRED INSTALLATION METHOD. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING THE APPROPRIATE PIPE CLASSES & BEDDING, & CONSIDERING CONSTRUCTION LOADING.
14. KERB ADAPTORS ARE TO BE INSTALLED TO AUTHORITIES REQUIREMENTS.
15. ALL RCBC SLABS ARE TO BE CAST INSITU.

LEGEND

- EXISTING KERB (INVERT)
- EXISTING KERB (LIP & BACK)
- EXISTING PROPERTY LINE
- EXISTING RETAINING WALL
- EXISTING STORMWATER (SW)
- EXISTING ROOFWATER (RW)
- EXISTING SUBSOIL (SS)
- EXISTING CONTOURS (1.0)
- FUTURE KERB
- FUTURE PROPERTY LINE
- FUTURE RETAINING WALL
- FUTURE STORMWATER (SW)
- FUTURE ROOFWATER (RW)
- FUTURE SUBSOIL (SS)
- SITE BOUNDARY
- STAGE BOUNDARY
- CONTROL LINE / CENTER OF ROAD
- PROPOSED KERB (INVERT)
- PROPOSED KERB (LIP & BACK)
- PROPOSED PROPERTY LINE
- PROPOSED RETAINING WALL
- DESIGN CONTOURS (1.0)
- PROPOSED STORMWATER (SW)
- PROPOSED ROOFWATER (RW)
- PROPOSED SUBSOIL (SS)
- MANHOLE
- FIELD INLET
- KERB INLET (ON GRADE) PIT
- KERB INLET (SAG) PIT
- HEADWALL
- SCOUR PROTECTION

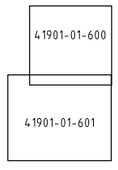


REFERENCE POINT LOCATION FOR DRAINAGE STRUCTURES

STRUCTURE TYPE	HORIZONTAL CONTROL (Reference Point Location)	VERTICAL CONTROL (Reference Level)
MANHOLE / GRATED PIT	CENTRE OF MANHOLE / PIT	FINISHED SURFACE LEVEL
GULLY PIT	LIP AT CENTRE OF PIT	FINISHED SURFACE LEVEL (LIP OF CHANNEL)
HEADWALL	INTERSECTION OF HEADWALL FACE & PIPE CENTRELINE	INVERT LEVEL

REFER TO DWG SERIES 640 FOR ALL DRAINAGE STRUCTURE SETOUT AND/OR CUSTOM DETAILS.

SHEET LAYOUT



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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

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PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

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

REV	DATE	DESCRIPTION	INT
F	19-06-24	ROCK V-DRAIN & NOTE ADDED	BL
E	23-02-24	CONTOURS & RETAINING WALLS LOT 110 AMENDED	BL
D	20-12-23	STORMWATER LINE 60 REMOVED	BL
C	14-07-23	RFI AMENDMENTS	EP
B	20-03-23	STORMWATER BASIN ACCESS AMENDED	JB
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT+BENNETT

DRAWING TITLE

STORMWATER DRAINAGE PLAN SHEET 01

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Suite 9, 19 Short St
Southport QLD 4215

DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER 41901-01-600 REV F

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ADJOINS SHEET 01

STAGE 2

STAGE 3

ROAD 01

ROAD 03

ROAD 04

RANGEVIEW ROAD

GORDON DR

BIORETRENTION BASIN D
REFER TO DETAILS ON
DWG 41901-01-661

REMOVE EXISTING
HEADWALL &
EXTEND PIPE

RAISE EXISTING MANHOLE
TO NEW ROAD LEVEL

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

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CLIENT

HB Land

NORTH

0 5 10 15 20 25m

Scale 1:500 - A1 (1:1000 - A3)

REV	DATE	DESCRIPTION	INT
E	19-06-24	PMT REMOVED & CONTOURS UPDATED	BL
D	23-02-24	CONTOURS& RETAINING WALLS LOT 110 AMENDED	BL
C	14-07-23	RFI AMENDMENTS	EP
B	09-03-23	STORMWATER PIPE AMENDED	JB
A	03-03-23	COUNCIL ISSUE	JB

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Robin Russell & ASSOCIATES PTY. LTD.

BENNETT+BENNETT

DRAWING TITLE

STORMWATER
DRAINAGE
PLAN
SHEET 02

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

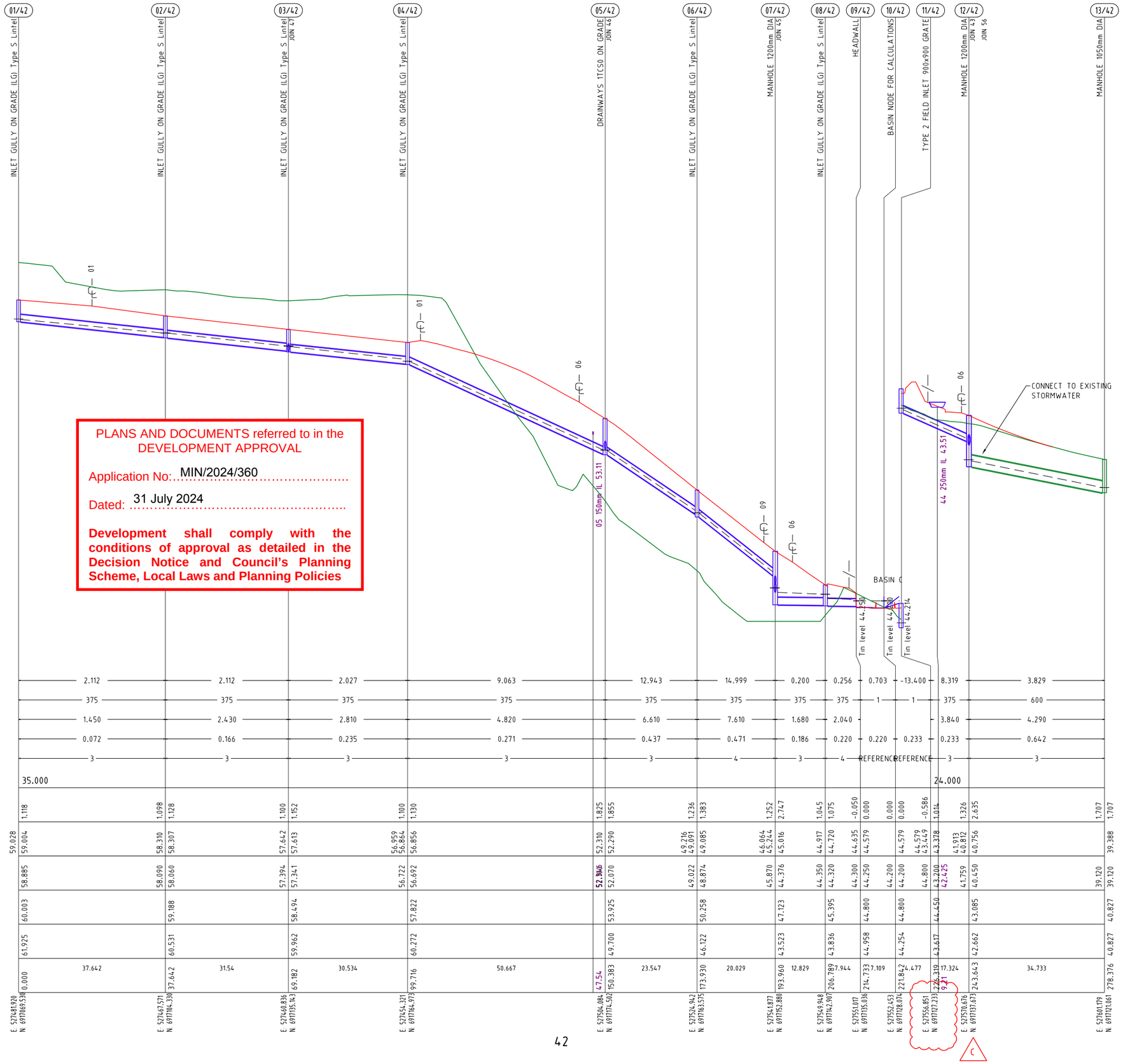
DRAWING NUMBER 41901-01-601

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STRUCTURE NAME

STRUCTURE DESCRIPTION



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

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NOTES

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2. STRUCTURAL DESIGN IS NOT PROVIDED AS PART OF THE TENDER DOCUMENTS, THE CONTRACTOR SHALL INCLUDE IN THEIR PRICE THE STRUCTURAL DESIGN AND CERTIFICATION OF THESE STRUCTURES.

PROJECT NAME

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CLIENT

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

0 1 2 3 4 5m
Vert. Scale 1:100 - A1 (1:200 - A3)

REV	DATE	DESCRIPTION	INT
C	27-11-23	COORDINATES AMENDED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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DRAWING TITLE

STORMWATER PROFILES SHEET 01

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Urban & Regional Planning
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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER 41901-01-620

REV C

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STRUCTURE NAME	STRUCTURE DESCRIPTION
01/43	TYPE 2 FIELD INLET 900x600 GRATE
02/43	TYPE 2 FIELD INLET 900x600 GRATE
03/43	TYPE 2 FIELD INLET 900x900 GRATE
04/43	INLET GULLY ON GRADE (LG) Type S Lintel
12/42	MANHOLE 1200mm DIA JOIN 42
01/45	Ø 225 RISER (EXTEND 300mm ABOVE FSL)
02/45	INLET GULLY ON GRADE (LG) Type S Lintel
07/42	MANHOLE 1200mm DIA JOIN 42
01/46	TYPE 2 FIELD INLET 900x900 GRATE
02/46	TYPE 2 FIELD INLET 600x600 GRATE
03/46	TYPE 2 FIELD INLET 600x600 GRATE
04/46	TYPE 2 FIELD INLET 600x600 GRATE
05/46	TYPE 2 FIELD INLET 900x600 GRATE
06/46	TYPE 2 FIELD INLET 900x600 GRATE
07/46	TYPE 2 FIELD INLET 900x600 GRATE
08/46	TYPE 2 FIELD INLET 900x600 GRATE
09/46	MANHOLE C/W CONVERTER SLAB 600x600 GRATE
05/42	DRAINWAYS 1TCS0 ON GRADE JOIN 42
01/47	INLET GULLY ON GRADE (LG) Type S Lintel
03/42	INLET GULLY ON GRADE (LG) Type S Lintel JOIN 42

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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

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DRAINAGE LINE 43

Pipe	PIPE GRADE (%)	PIPE DIAMETER (mm)	VELOCITY (m/s)	PIPE FLOW (m3/s)	PIPE CLASS
01/43–02/43	20.000	225	2.070	0.002	PVC
02/43–03/43	7.853	225	1.890	0.005	PVC
03/43–04/43	1.835	450	1.250	0.012	3
04/43–12/42	5.000	450	1.920	0.049	3

DATUM R.L. 27.000

Structure	DEPTH TO INVERT	HYDRAULIC GRADE LINE	PIPE INVERT LEVELS	DESIGN SURFACE LEVELS	EXISTING SURFACE LEVELS	CHAINAGE	Coordinates
01/43	1.595	47.020	47.005	48.600	47.696	0.000	E: 527587.173 N: 6917169.104
(01/43–02/43)						13.498	
02/43	0.795 / 1.339	44.321 / 43.789	44.305 / 43.761	45.100	43.867	13.498	E: 527580.912 N: 6917157.146
(02/43–03/43)						13.5	
03/43	1.026 / 1.827	42.729 41.949 / 41.950	42.701 / 41.900	43.727	42.778	26.997	E: 527574.645 N: 6917145.189
(03/43–04/43)			41.852			6.95 / 2.74	
04/43	1.266 / 1.341	41.827 / 41.776	41.772 / 41.697	43.038	42.611	33.947	E: 527571.400 N: 6917139.043
(04/43–12/42)						1.55	
12/42	1.465 / 2.635	41.694 40.812 / 40.756	41.620 / 40.450	43.085	42.662	35.497	E: 527570.676 N: 6917137.673

DRAINAGE LINE 45

Pipe	PIPE GRADE (%)	PIPE DIAMETER (mm)	VELOCITY (m/s)	PIPE FLOW (m3/s)	PIPE CLASS
01/45–02/45	1.489	225	0.800	0.006	PVC
02/45–07/42	10.000	375	3.130	0.079	3

DATUM R.L. 28.000

Structure	DEPTH TO INVERT	HYDRAULIC GRADE LINE	PIPE INVERT LEVELS	DESIGN SURFACE LEVELS	EXISTING SURFACE LEVELS	CHAINAGE	Coordinates
01/45	1.542	46.478 / 46.474	46.428	47.971	44.584	0.000	E: 527551.458 N: 6917160.492
(01/45–02/45)			46.394			6.158 / 2.41	
02/45	1.270 / 1.300	46.438 / 46.401	46.337 / 46.307	47.606	44.525	6.158	E: 527545.302 N: 6917160.612
(02/45–07/42)			45.872			8.457 / 4.26	
07/42	1.662 / 2.747	45.545 45.244 / 45.016	45.461 / 44.376	47.123	43.523	14.614	E: 527541.877 N: 6917152.880

DRAINAGE LINE 46

Pipe	PIPE GRADE (%)	PIPE DIAMETER (mm)	VELOCITY (m/s)	PIPE FLOW (m3/s)	PIPE CLASS
01/46–02/46	2.000	225	1.150	0.021	PVC
02/46–03/46	0.785	225	1.200	0.033	PVC
03/46–04/46	0.500	300	1.230	0.046	3
04/46–05/46	2.078	300	2.110	0.058	3
05/46–06/46	2.163	375	2.370	0.069	3
06/46–07/46	2.160	375	2.200	0.081	3
07/46–08/46	1.326	375	2.030	0.094	3
08/46–09/46	6.561	375	3.840	0.106	3
09/46–05/42	5.000	375	3.310	0.119	3

DATUM R.L. 37.000

Structure	DEPTH TO INVERT	HYDRAULIC GRADE LINE	PIPE INVERT LEVELS	DESIGN SURFACE LEVELS	EXISTING SURFACE LEVELS	CHAINAGE	Coordinates
01/46	1.967	56.867 / 56.865	56.733	58.700	55.428	0.000	E: 527517.204 N: 6917065.912
(01/46–02/46)						12.5	
02/46	0.917 / 0.947	56.619 / 56.599	56.483 / 56.453	57.400	54.390	12.500	E: 527514.537 N: 6917078.124
(02/46–03/46)						12.5	
03/46	0.896 / 0.926	56.486 / 56.484	56.354 / 56.324	57.250	53.473	25.000	E: 527511.870 N: 6917090.336
(03/46–04/46)						12.5	
04/46	0.838 / 0.868	56.414 56.362 / 56.358	56.262 / 56.232	57.100	52.791	37.500	E: 527509.203 N: 6917102.548
(04/46–05/46)						12.5	
05/46	1.128 / 1.203	56.088 / 56.015	55.972 / 55.897	57.100	52.485	50.000	E: 527506.536 N: 6917114.760
(05/46–06/46)						12.5	
06/46	1.123 / 1.153	55.743 55.734 / 55.732	55.627 / 55.597	56.750	52.365	62.500	E: 527503.870 N: 6917126.973
(06/46–07/46)						12.5	
07/46	1.123 / 1.153	55.470 / 55.463	55.327 / 55.297	56.450	52.183	75.000	E: 527501.203 N: 6917139.185
(07/46–08/46)						12.5	
08/46	1.019 / 1.049	55.286 55.216 / 55.214	55.131 / 55.101	56.150	51.756	87.500	E: 527498.536 N: 6917151.397
(08/46–09/46)						10.56	
09/46	1.442 / 2.732	54.516 53.266 / 53.255	54.408 / 53.118	55.850	51.319	98.060	E: 527496.283 N: 6917161.714
(09/46–05/42)						14.98	
05/42	1.556 / 1.855	52.492 52.310 / 52.290	52.369 / 52.070	53.925	49.700	113.040	E: 527504.084 N: 6917174.502

DRAINAGE LINE 47

Pipe	PIPE GRADE (%)	PIPE DIAMETER (mm)	VELOCITY (m/s)	PIPE FLOW (m3/s)	PIPE CLASS
01/47–03/42	1.802	375	0.690	0.018	3

DATUM R.L. 41.000

Structure	DEPTH TO INVERT	HYDRAULIC GRADE LINE	PIPE INVERT LEVELS	DESIGN SURFACE LEVELS	EXISTING SURFACE LEVELS	CHAINAGE	Coordinates
01/47	1.004	57.654 / 57.602	57.490	58.494	59.090	0.000	E: 527467.284 N: 6917136.551
(01/47–03/42)						6.6	
03/42	1.123 / 1.152	57.642 / 57.613	57.371 / 57.341	58.494	59.962	6.600	E: 527460.836 N: 6917135.143

Legend: HYDRAULIC GRADE LINE — dashed; PIPE INVERT LEVELS — blue; DESIGN SURFACE LEVELS — red; EXISTING SURFACE LEVELS — green.

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

Horiz. Scale 1:500 - A1 (1:1000 - A3) (0, 5, 10, 15, 20, 25m)
Vert. Scale 1:100 - A1 (1:200 - A3) (0, 1, 2, 3, 4, 5m)

REV	DATE	DESCRIPTION	INT
C	14-07-23	RFI AMENDMENTS	EP
B	09-03-23	STORMWATER PROFILE AMENDED	JB
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT+BENNETT

DRAWING TITLE

STORMWATER PROFILES SHEET 02

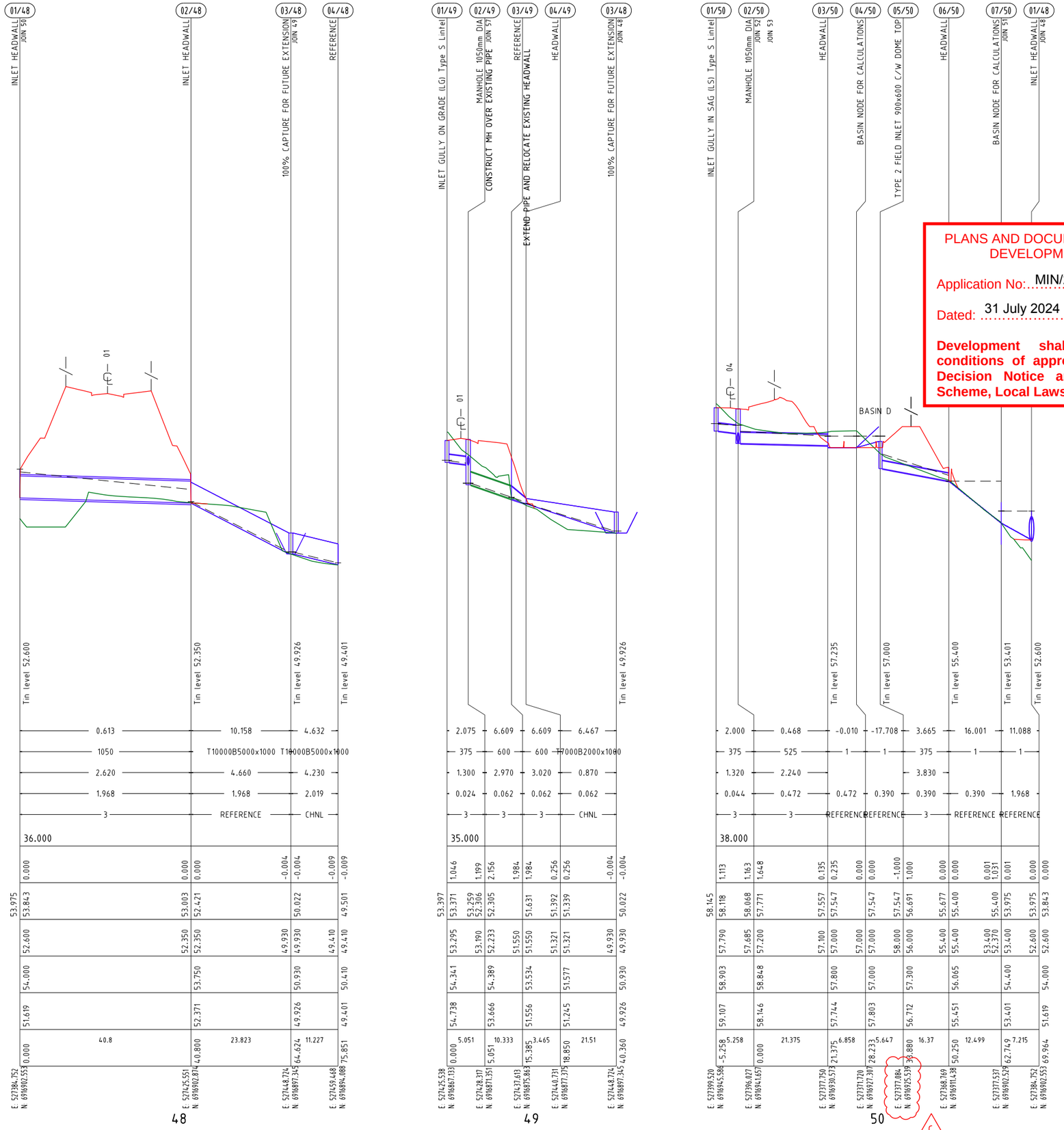
MORTONS urbansolutions
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Project Coordination
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Gold Coast Office: Suite 9, 19 Short St Southport QLD 4215

DESIGNED RB | DRAWN EMH
APPROVED [signature] RPEQ 4706 | DATE 03-03-23

DRAWING NUMBER 41901-01-621 | REV B

STRUCTURE NAME

STRUCTURE DESCRIPTION



NOTES

1. WHERE STRUCTURE DEPTHS ARE 0m TO 3m REFER TO IPWEA STANDARD DRAWINGS FOR STRUCTURE DETAILS. WHERE STRUCTURE DEPTHS ARE 3m TO 5m REFER TO TMR STANDARD DRAWINGS FOR STRUCTURE DETAILS. WHERE STRUCTURE DEPTHS EXCEED 5m STRUCTURES ARE NON-STANDARD AND STRUCTURAL DESIGN IS REQUIRED.
2. STRUCTURAL DESIGN IS NOT PROVIDED AS PART OF THE TENDER DOCUMENTS, THE CONTRACTOR SHALL INCLUDE IN THEIR PRICE THE STRUCTURAL DESIGN AND CERTIFICATION OF THESE STRUCTURES.

DRAINAGE LINE

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

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

0 1 2 3 4 5m
Vert. Scale 1:100 - A1 (1:200 - A3)

REV	DATE	DESCRIPTION	INT
C	27-11-23	COORDINATES AMENDED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT+BENNETT

DRAWING TITLE

STORMWATER PROFILES SHEET 03

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Urban & Regional Planning
Civil Engineering
Project Coordination
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www.urbansolutions.net.au
Tel 07 5571 1099
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PO Box 2484
Southport QLD 4215
Gold Coast Office
Suite 9, 19 Short St
Southport QLD 4215

DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER 41901-01-622

REV C

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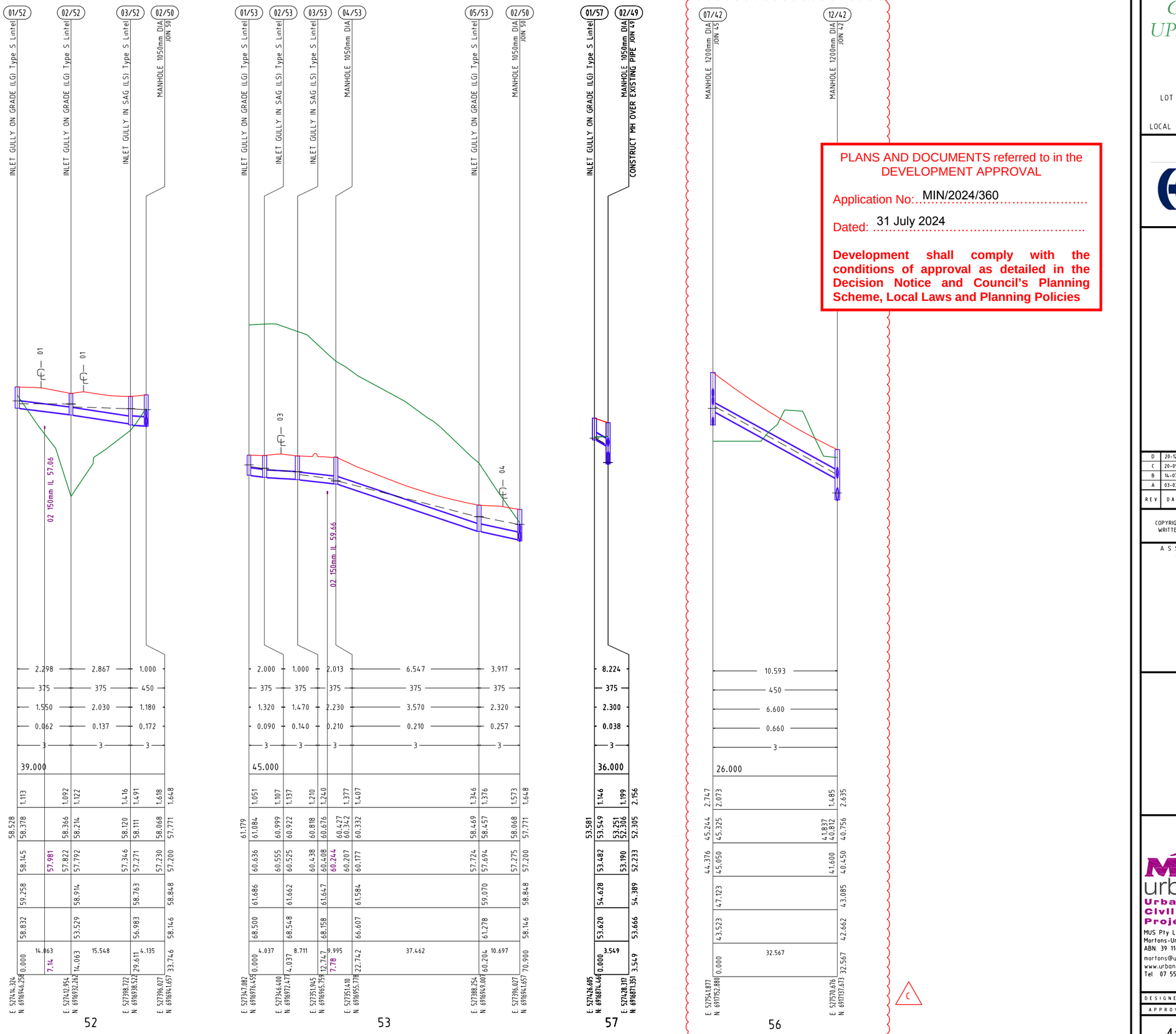
STRUCTURE NAME

STRUCTURE DESCRIPTION



NOTES

1. WHERE STRUCTURE DEPTHS ARE 0m TO 3m REFER TO IPWEA STANDARD DRAWINGS FOR STRUCTURE DETAILS. WHERE STRUCTURE DEPTHS ARE 3m TO 5m REFER TO TMR STANDARD DRAWINGS FOR STRUCTURE DETAILS. WHERE STRUCTURE DEPTHS EXCEED 5m STRUCTURES ARE NON-STANDARD AND STRUCTURAL DESIGN IS REQUIRED.
2. STRUCTURAL DESIGN IS NOT PROVIDED AS PART OF THE TENDER DOCUMENTS, THE CONTRACTOR SHALL INCLUDE IN THEIR PRICE THE STRUCTURAL DESIGN AND CERTIFICATION OF THESE STRUCTURES.



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

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

0 1 2 3 4 5m
Vert. Scale 1:100 - A1 (1:200 - A3)

REV	DATE	DESCRIPTION	INT
D	20-12-23	LINE 56 ADDED & LINE 60 REMOVED	BL
C	20-09-23	LINE 60 ADDED	EP
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING

Robin Russell & ASSOCIATES PTY. LTD.

BENNETT + BENNETT

DRAWING TITLE

STORMWATER PROFILES SHEET 04

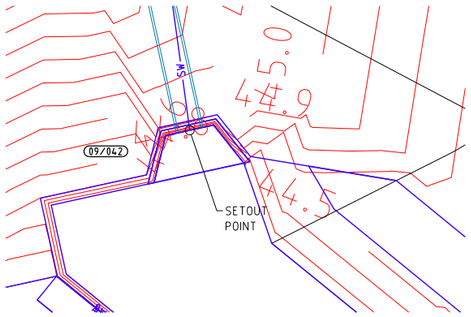
MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination
MUS Pty Ltd T/As:
Mortons-Urban Solutions
ABN: 39 116 375 065
mortons@urbansolutions.net.au
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Suite 9, 19 Short St
Southport QLD 4215

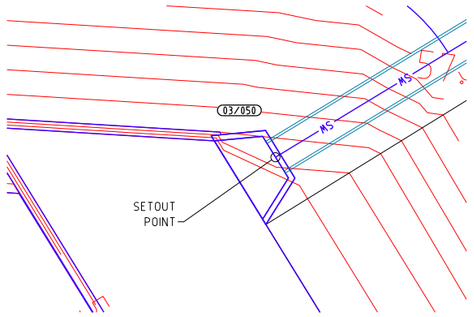
DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ 4706	DATE 03-03-23

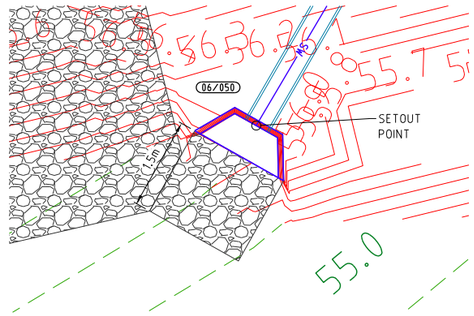
DRAWING NUMBER 41901-01-623

REV D

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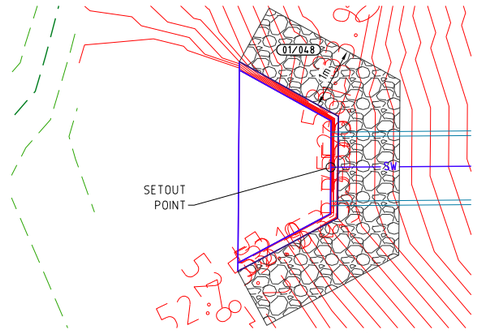






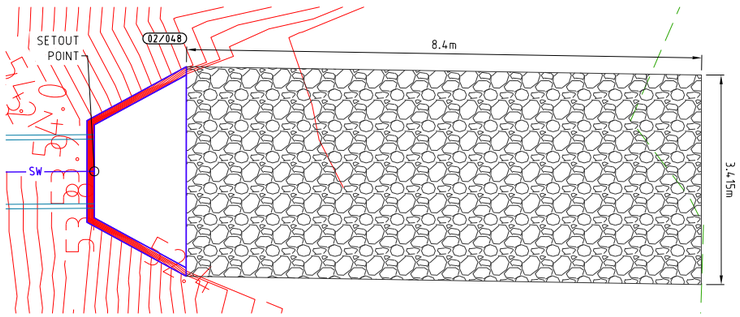
SCOUR PROTECTION DESIGN	
HW 06/050	SIZE 375mm
VELOCITY = 3.91m/s	
LENGTH = 1.5m	d50 = 200mm
SCOUR PROTECTION TYPE = RENO MATTRESS 400mm THICK	

CALCULATIONS UNDERTAKEN USING
PROPRIETARY PRODUCT DATA



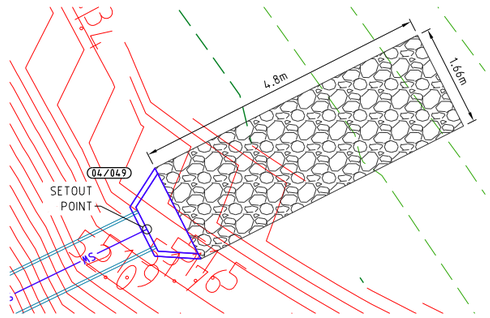
SCOUR PROTECTION DESIGN	
HW 01/048	SIZE 1050mm
VELOCITY = 3.91 m/s	
WIDTH = 1m	d50 = 200mm
SCOUR PROTECTION TYPE = GROUTED ROCK PITCHING 400mm THICK	

CALCULATIONS UNDERTAKEN USING
FIGURE 8.12 FROM QUDM 2016



SCOUR PROTECTION DESIGN	
HW 02/048	SIZE 1050mm
VELOCITY = 3.6m/s	
LENGTH = 8.4m	d50 = 300mm
SCOUR PROTECTION TYPE = RENO MATTRESS 600mm THICK	

CALCULATIONS UNDERTAKEN USING
PROPRIETARY PRODUCT DATA



SCOUR PROTECTION DESIGN	
HW 04/049	SIZE 375mm
VELOCITY = 4.2m/s	
LENGTH = 4.8m	d50 = 300mm
SCOUR PROTECTION TYPE = RENO MATTRESS 600mm THICK	

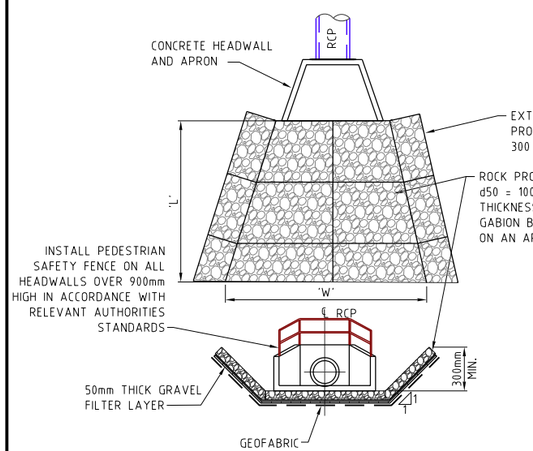
CALCULATIONS UNDERTAKEN USING
PROPRIETARY PRODUCT DATA

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

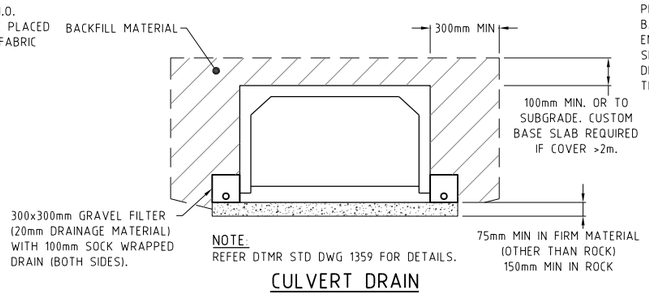
Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



TYPICAL GABION SCOUR PROTECTION DETAIL

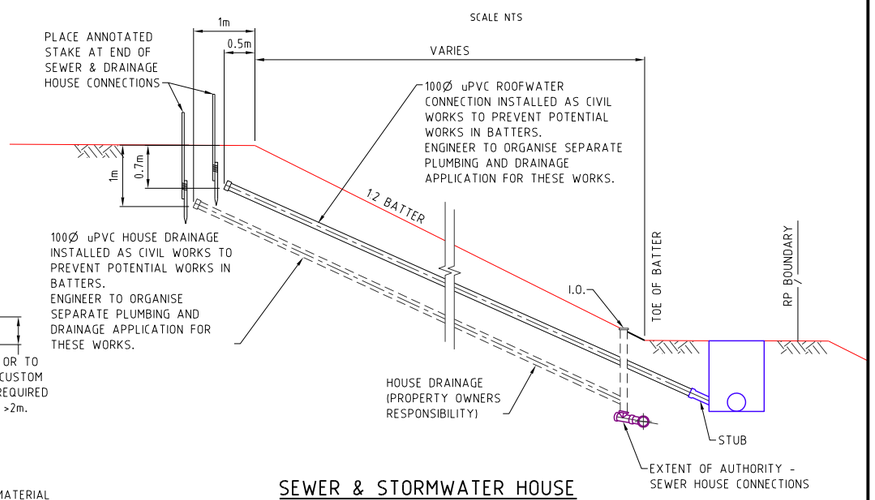
SCALE 1 : 100 - A1 (1:200 - A3)



NOTE
REFER DTMR STD DWG 1359 FOR DETAILS.

CULVERT DRAIN

SCALE NTS



SEWER & STORMWATER HOUSE CONNECTION DETAIL

(WHERE INDICATED ON PLAN)

SCALE 1:50 - A1 (1:100 - A3)

0 0.1 0.2 0.3 0.4 0.5m
Scale 1:10 - A1 (1:20 - A3)

0 0.5 1.0 1.5 2.0 2.5m
Scale 1:50 - A1 (1:100 - A3)

0 1 2 3 4 5m
Scale 1:100 - A1 (1:200 - A3)

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 0.5 1.0 1.5 2.0 2.5m
Scale 1:50 - A1 (1:100 - A3)

REV	DATE	DESCRIPTION	INT
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT + BENNETT

DRAWING TITLE

STORMWATER
OUTLETS AND
TYPICAL DETAILS
SHEET 01

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Urban & Regional Planning
Civil Engineering
Project Coordination
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Gold Coast Office
Suite 9, 19 Short St
Southport QLD 4215

DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ 4706	DATE 03-03-23

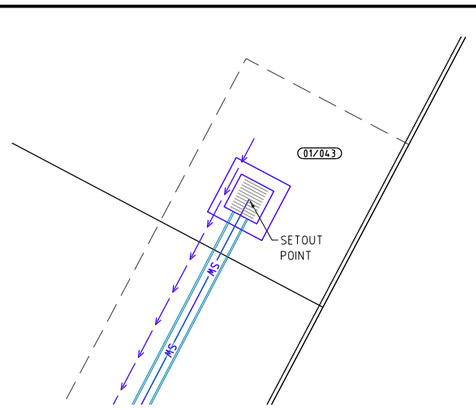
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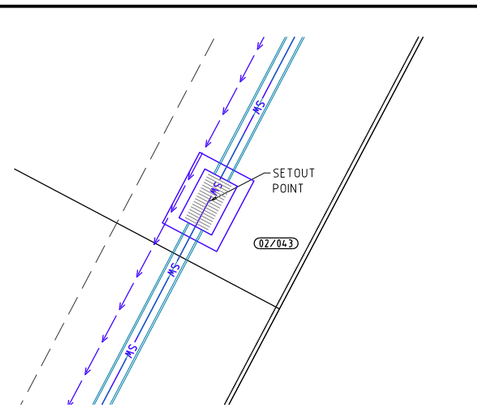
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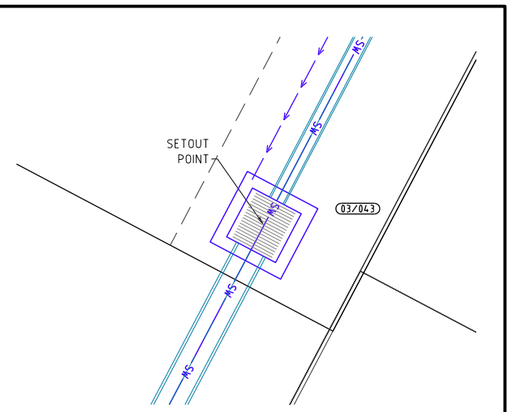
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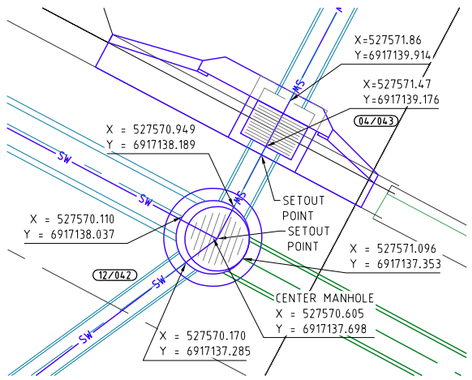
- EXISTING KERB (INVERT)
- EXISTING KERB (LIP & BACK)
- EXISTING FOOTPATH
- EXISTING PROPERTY LINE
- EXISTING STORMWATER
- EXISTING ROOFWATER
- EXISTING STORMWATER PIPES
- EXISTING ROOFWATER PIPES
- FUTURE KERB (INVERT)
- FUTURE KERB (LIP & BACK)
- FUTURE FOOTPATH
- FUTURE PROPERTY LINE
- FUTURE STORMWATER
- FUTURE ROOFWATER
- FUTURE STORMWATER PIPES
- FUTURE ROOFWATER PIPES
- CONTROL LINE / CENTER OF ROAD
- PROPOSED KERB (INVERT)
- PROPOSED KERB (LIP & BACK)
- PROPOSED FOOTPATH
- PROPOSED PROPERTY LINE
- PROPOSED STORMWATER
- PROPOSED ROOFWATER
- PROPOSED STORMWATER PIPES
- PROPOSED ROOFWATER PIPES
- MANHOLE
- FIELD INLET
- KERB INLET (ON GRADE) PIT
- KERB INLET (SAG) PIT
- HEADWALL
- SCOUR PROTECTION
- 10/001 DRAINAGE PIT & LINE NO.
- CONCRETE

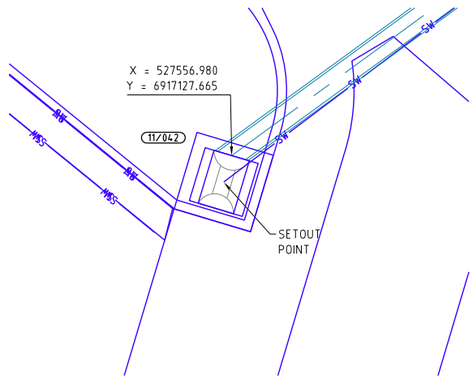
NOTE
THE STORMWATER PIT IMAGE ARE DIAGRAMATIC ONLY & THE CONTRACTOR MUST ENSURE THEY MATCH NEATLY INTO THE WORKS

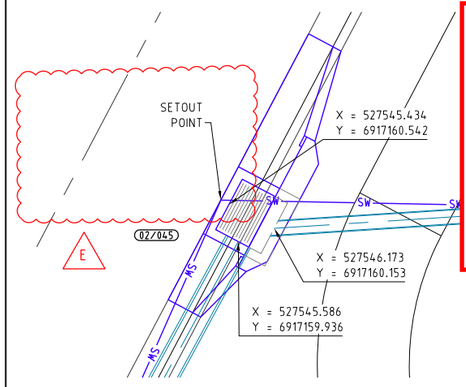


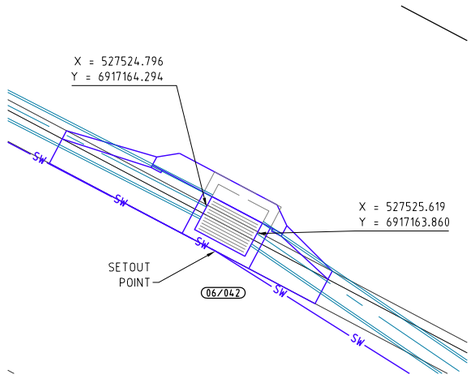


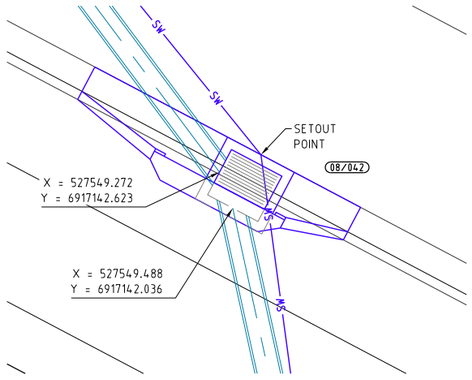


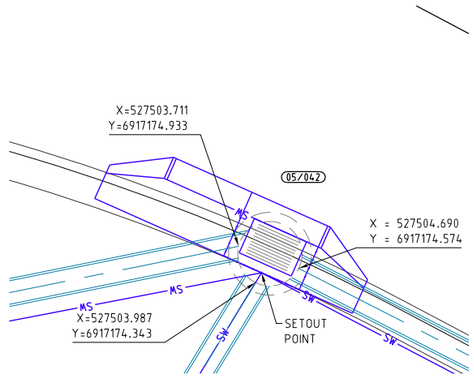


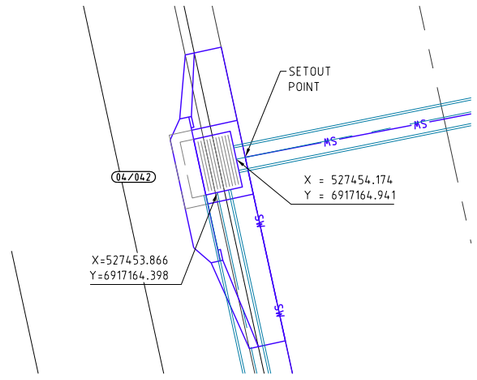


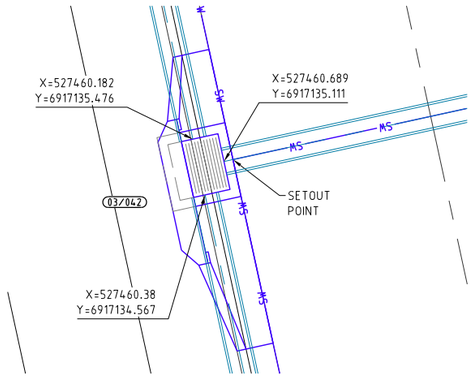


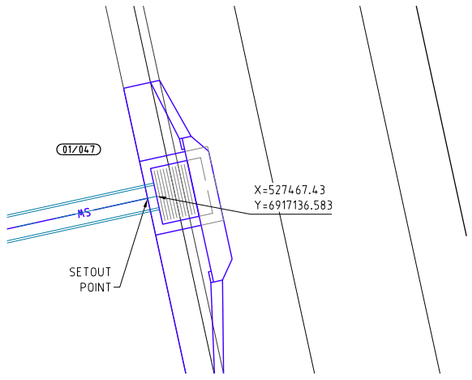


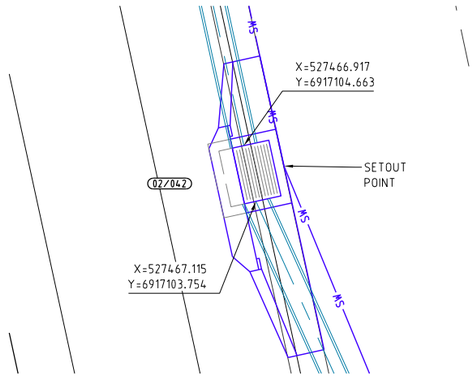


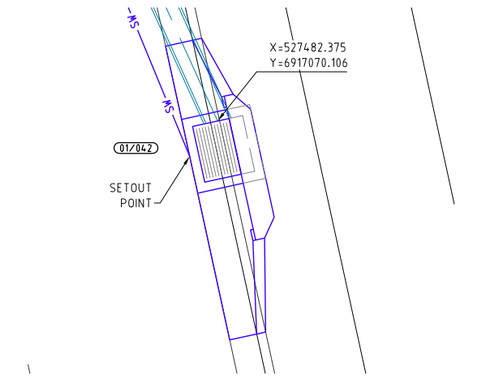












PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

REV	DATE	DESCRIPTION	INT
E	20-12-23	LINE 60 REMOVED	BL
D	27-11-23	CEN MH COORDS ADDED & SETOUT POINT ADJUSTED	BL
C	06-10-23	CO-ORDS PIT 08/042 AMENDED	JB
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT + BENNETT

DRAWING TITLE

STORMWATER
PIT DETAILS
SHEET 01

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

MUS Pty Ltd T/As:
Mortons-Urban Solutions
ABN: 39 116 375 065
mortons@urbansolutions.net.au
www.urbansolutions.net.au
Tel 07 5571 1099

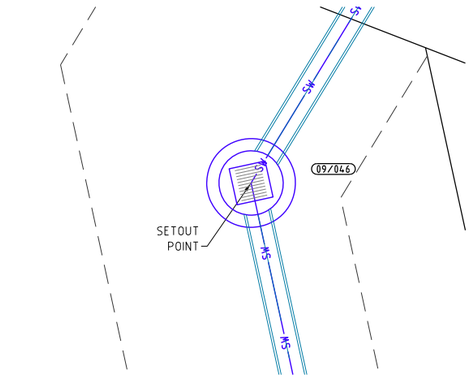
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PO Box 2484
Southport QLD 4215

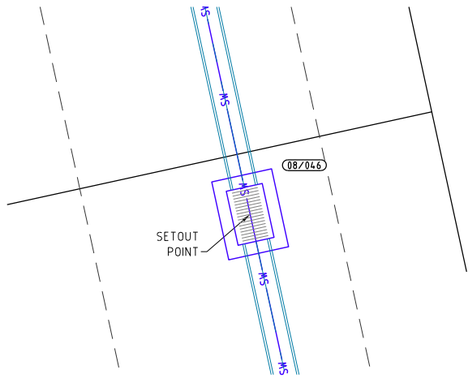
Gold Coast Office
Suite 9, 19 Short St
Southport QLD 4215

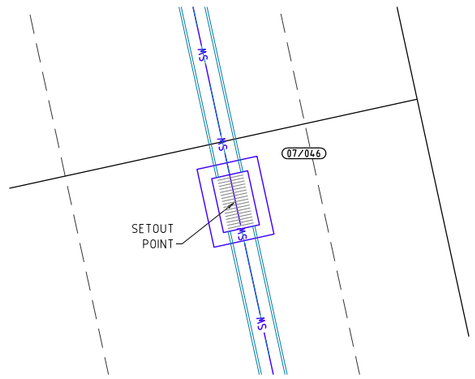
DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ 4706	DATE 03-03-23

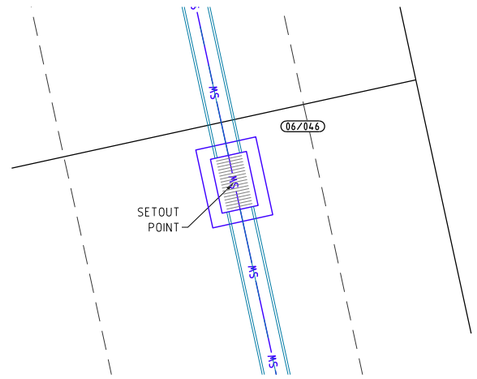
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REV: E

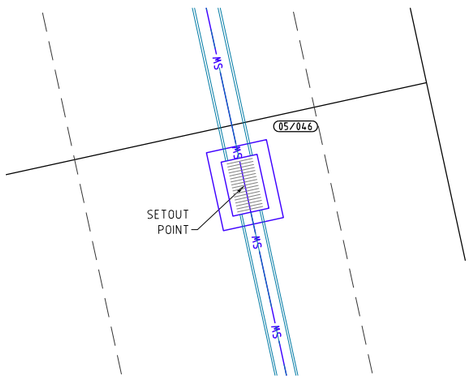
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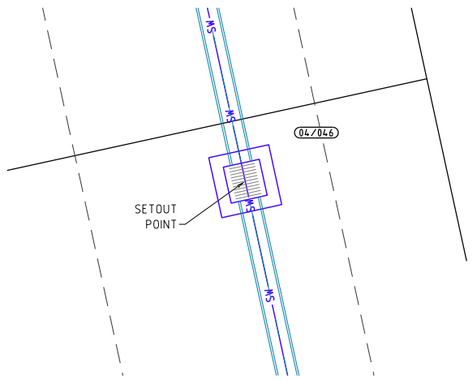


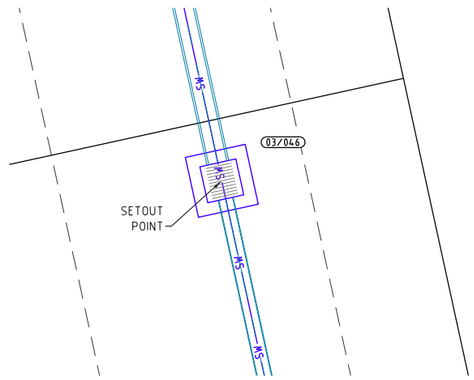


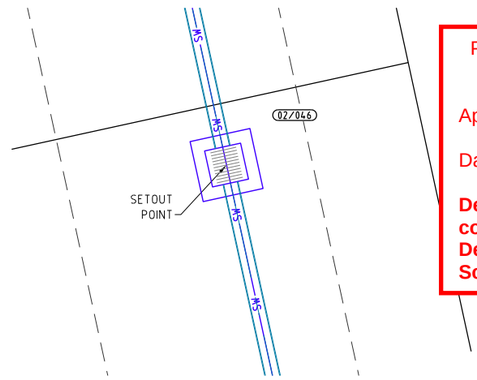


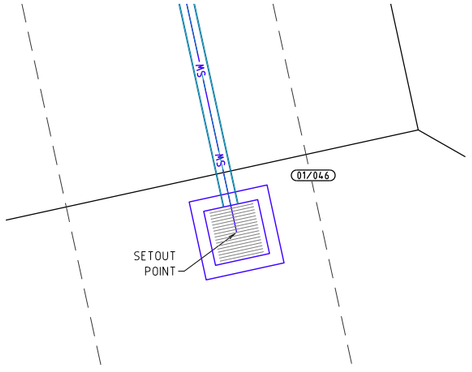


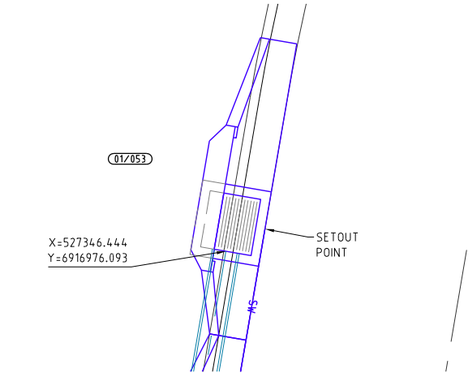


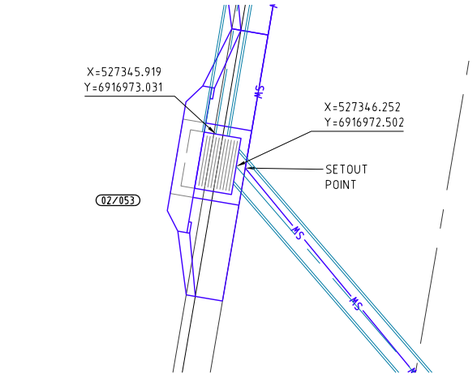


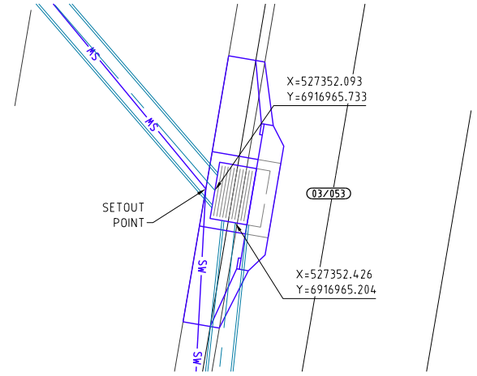


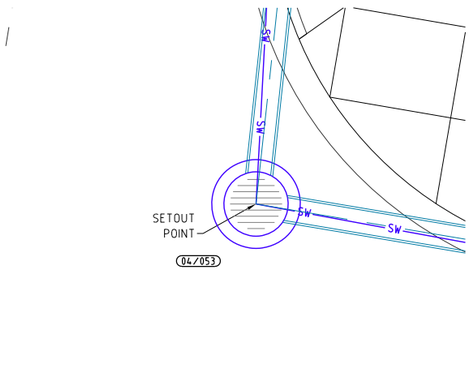


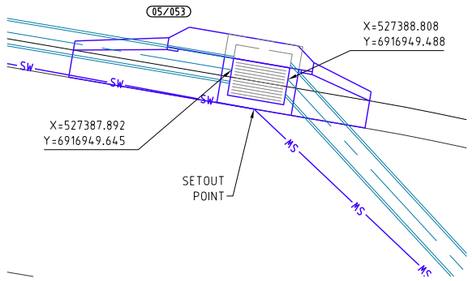


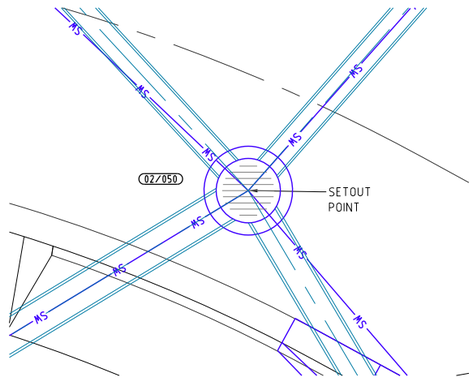


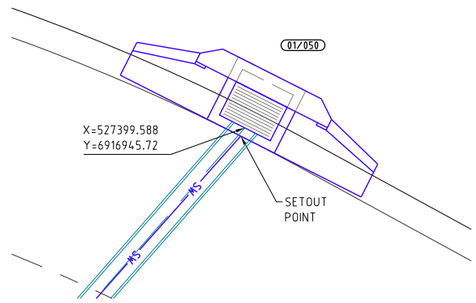












PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

REV	DATE	DESCRIPTION	INT
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING

Robin Russell & ASSOCIATES PTY. LTD.

BENNETT + BENNETT

DRAWING TITLE

STORMWATER
PIT DETAILS
SHEET 02

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

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www.urbansolutions.net.au
Tel 07 5571 1099

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Southport QLD 4215

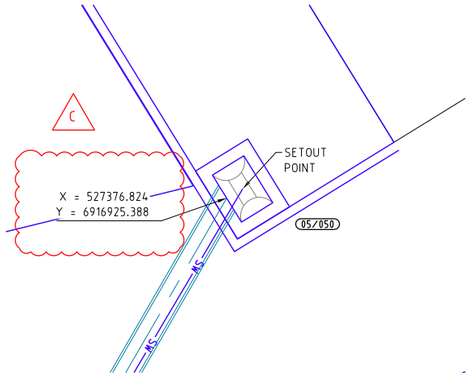
Gold Coast Office
Suite 9, 19 Short St
Southport QLD 4215

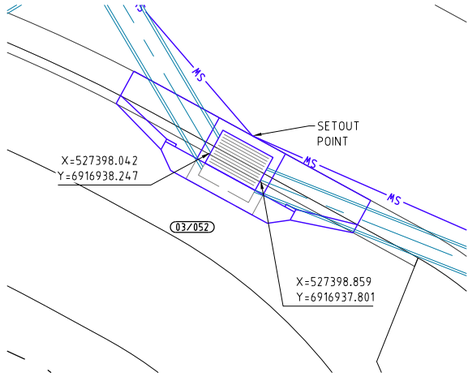
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APPROVED		RPEQ 4706	DATE 03-03-23

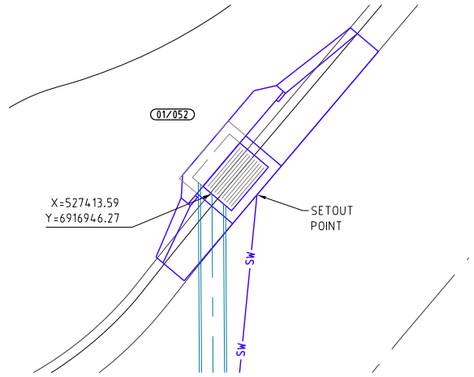
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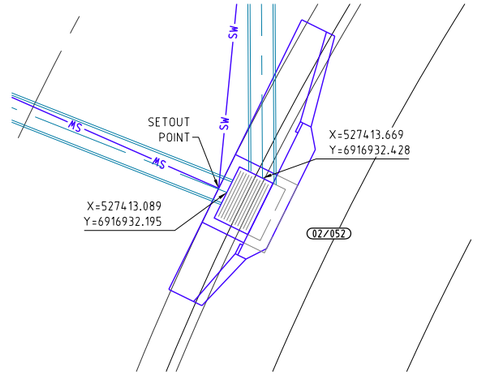
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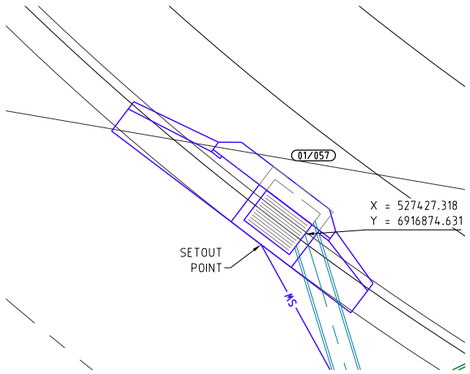
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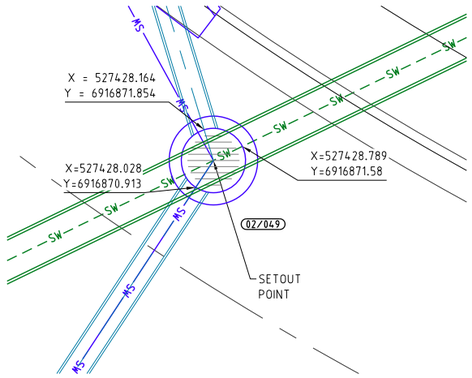


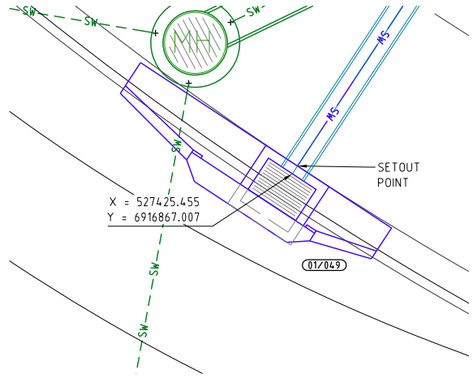


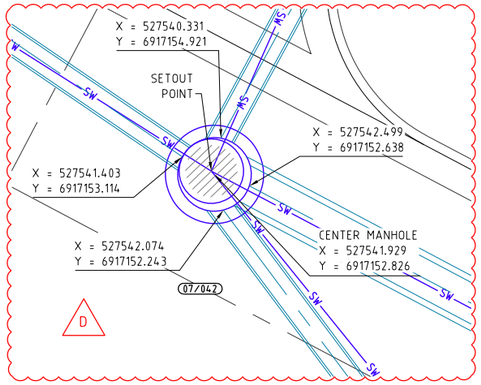












PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 0.5 1.0 1.5 2.0 2.5m

Scale 1:50 - A1 (1:100 - A3)

REV	DATE	DESCRIPTION	INT
D	27-11-23	DETAILS FOR MANHOLE 7/42 ADDED	BL
C	06-10-23	CO-ORDS PIT 05/050 AMENDED	JB
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING

Robin Russell & ASSOCIATES PTY. LTD.

BENNETT+BENNETT

DRAWING TITLE

STORMWATER
PIT DETAILS
SHEET 03

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

MUS Pty Ltd T/As:
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Postal Address
PO Box 2484
Southport QLD 4215

Gold Coast Office
Suite 9, 19 Short St
Southport QLD 4215

DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ 4706	DATE 03-03-23

DRAWING NUMBER: 41901-01-652

REV: D

F:\Autocad Client\419 - HB Land\01 - Courtney Drive\Precinct-Stage 01\Engineering Drawings\Current\41901-01-650.dwg, PIT DETAILS SHEET 03, 24/06/2024 2:36:51 PM, 1:2

BASIN CONSTRUCTION

1. PRIOR TO COMMENCING CONSTRUCTION OF THE DETENTION BASIN THE DIVERSION OF SURFACE WATER FROM THE PROPOSED WORKS AREA, USING MEASURES SUCH AS OPEN DRAINS/SUMPS, ARE REQUIRED TO AID IN SITE DEWATERING.
2. FOR THE ENTIRE EMBANKMENT AREA STRIPPING OF VEGETATION & ANY HIGHLY ORGANIC TOP SOILS & ANY SOFT CLAYS TO DEPTHS OF APPROXIMATELY 0.3m IS REQUIRED.
3. THE STRIPPED SURFACE IS TO BE INSPECTED & TESTED BY A GEOTECHNICAL ENGINEER.
4. SUBJECT TO GEOTECHNICAL ENGINEER'S INSPECTION EXCAVATION OF A CUTOFF KEY ALONG THE EMBANKMENT CENTERLINE AT LEAST 0.5m - 1.0m INTO THE FOUNDATION MATERIALS SHALL BE REQUIRED.
5. THE CLAY FILLING FOR THE BASIN WALLS SHALL BE PLACED IN HORIZONTAL LAYERS OF 200mm THICKNESS & COMPACTED TO A DENSITY RATIO WITHIN THE RANGE 98% - 102% STANDARD COMPACTION (AS 1289.5.1.1). PLACEMENT MOISTURE CONTENTS SHOULD BE WITHIN THE RANGE OMC -1% TO OMC +2% (WHERE OMC = OPTIMUM MOISTURE CONTENT FOR STANDARD COMPACTION).
6. IF THE CIVIL CONTRACTOR IS CONSTRUCTING THE BIO BASIN FILTER MEDIA AFTER THE CONSTRUCTION OF THE BASIN INLET & OUTLET STRUCTURES, THE CIVIL CONTRACTOR IS TO CONFIRM THE LEVELS OF THE INLET & OUTLET STRUCTURES PRIOR TO COMMENCING BASIN CONSTRUCTION.

WALL DETAILS CONTAINED WITH THIS SET ARE INDICATIVE ONLY.
ALL RETAINING WALLS AND FOOTINGS ARE SUBJECT TO DETAILED DESIGN AND CERTIFICATION BY AN APPROPRIATELY QUALIFIED R.P.E.Q CERTIFIED ENGINEER.

LEGEND

- EXISTING PROPERTY LINE
- 1.0 EXISTING CONTOURS
- SW EXISTING STORMWATER
- FUTURE PROPERTY LINE
- SW FUTURE STORMWATER
- SITE BOUNDARY
- STAGE BOUNDARY
- PROPERTY LINE
- PROPOSED KERB
- 1.0 DESIGN CONTOURS
- SW PROPOSED STORMWATER
- MANHOLE
- FIELD INLET
- KERB INLET (ON GRADE) PIT
- KERB INLET (SAG) PIT
- HEADWALL
- SCOUR PROTECTION
- 10/001 STORMWATER PIT & LINE NO.

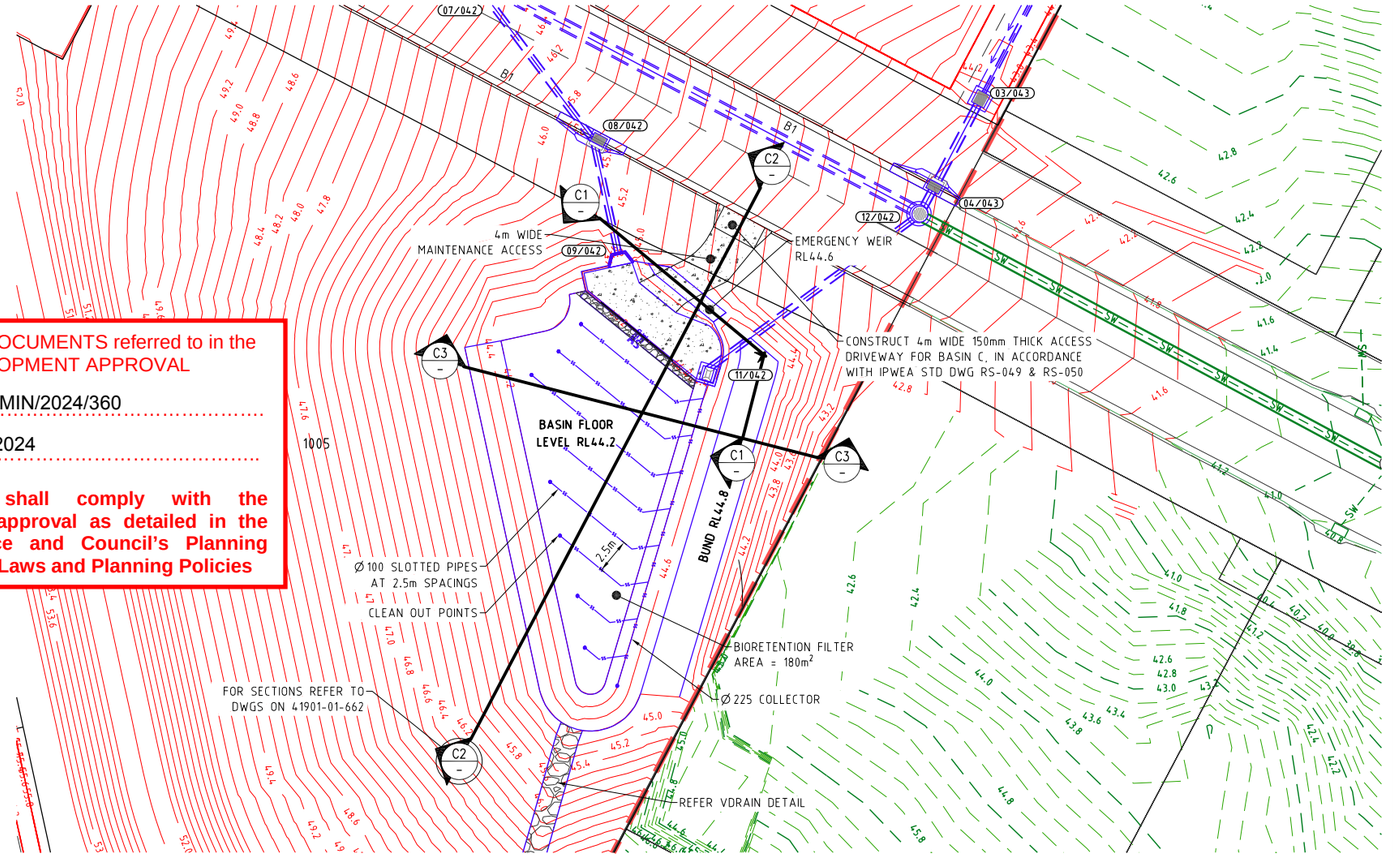
DIAL BEFORE YOU DIG www.1100.com.au

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

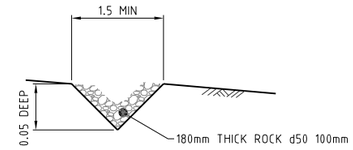
Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



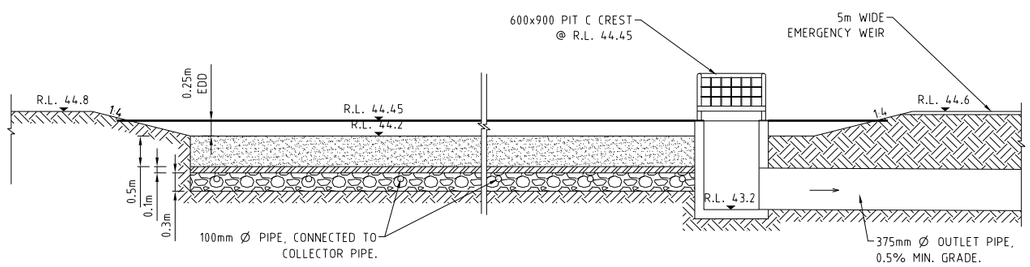
BASIN C PLAN

SCALE 1:200 - A1 (1:400 - A3)



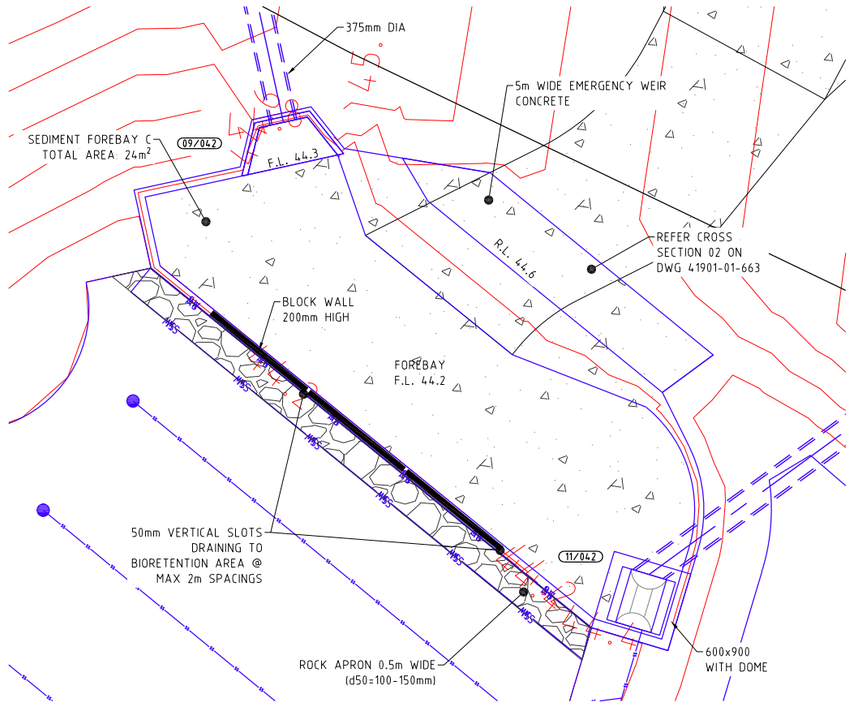
ROCK VDRAIN TO BASIN

NOT TO SCALE



BASIN C CROSS SECTION

SCALE 1:50 - A1 (1:100 - A3)



SEDIMENT FOREBAY C DETAIL

SCALE 1:50 - A1 (1:100 - A3)

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 0.5 1.0 1.5 2.0 2.5m
Scale 1:50 - A1 (1:100 - A3)
0 2 4 6 8 10m
Scale 1:200 - A1 (1:400 - A3)

REV	DATE	DESCRIPTION	INT
D	19-06-24	VDRAIN TO BASIN ADDED	BL
C	14-07-23	RFI AMENDMENTS	EP
B	09-03-23	NOTES & SCOUR PROTECTION AMENDED	JB
A	03-03-23	COUNCIL ISSUE	JB

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DRAWING TITLE

STORMWATER
BASIN
PLAN AND DETAILS
SHEET 01

MORTONS urbansolutions
Urban & Regional Planning
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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER 41901-01-660 REV D

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BASIN CONSTRUCTION

1. PRIOR TO COMMENCING CONSTRUCTION OF THE DETENTION BASIN THE DIVERSION OF SURFACE WATER FROM THE PROPOSED WORKS AREA, USING MEASURES SUCH AS OPEN DRAINS/SUMPS, ARE REQUIRED TO AID IN SITE DEWATERING.
2. FOR THE ENTIRE EMBANKMENT AREA STRIPPING OF VEGETATION & ANY HIGHLY ORGANIC TOP SOILS & ANY SOFT CLAYS TO DEPTHS OF APPROXIMATELY 0.3m IS REQUIRED.
3. THE STRIPPED SURFACE IS TO BE INSPECTED & TESTED BY A GEOTECHNICAL ENGINEER.
4. SUBJECT TO GEOTECHNICAL ENGINEER'S INSPECTION EXCAVATION OF A CUTOFF KEY ALONG THE EMBANKMENT CENTERLINE AT LEAST 0.5m - 1.0m INTO THE FOUNDATION MATERIALS SHALL BE REQUIRED.
5. THE CLAY FILLING FOR THE BASIN WALLS SHALL BE PLACED IN HORIZONTAL LAYERS OF 200mm THICKNESS & COMPACTED TO A DENSITY RATIO WITHIN THE RANGE 98% - 102% STANDARD COMPACTION (AS 1289.5.1.1). PLACEMENT MOISTURE CONTENTS SHOULD BE WITHIN THE RANGE OMC -1% TO OMC +2% (WHERE OMC = OPTIMUM MOISTURE CONTENT FOR STANDARD COMPACTION).
6. IF THE CIVIL CONTRACTOR IS CONSTRUCTING THE BIO BASIN FILTER MEDIA AFTER THE CONSTRUCTION OF THE BASIN INLET & OUTLET STRUCTURES, THE CIVIL CONTRACTOR IS TO CONFIRM THE LEVELS OF THE INLET & OUTLET STRUCTURES PRIOR TO COMMENCING BASIN CONSTRUCTION.

WALL DETAILS CONTAINED WITH THIS SET ARE INDICATIVE ONLY. ALL RETAINING WALLS AND FOOTINGS ARE SUBJECT TO DETAILED DESIGN AND CERTIFICATION BY AN APPROPRIATELY QUALIFIED R.P.E.Q CERTIFIED ENGINEER.

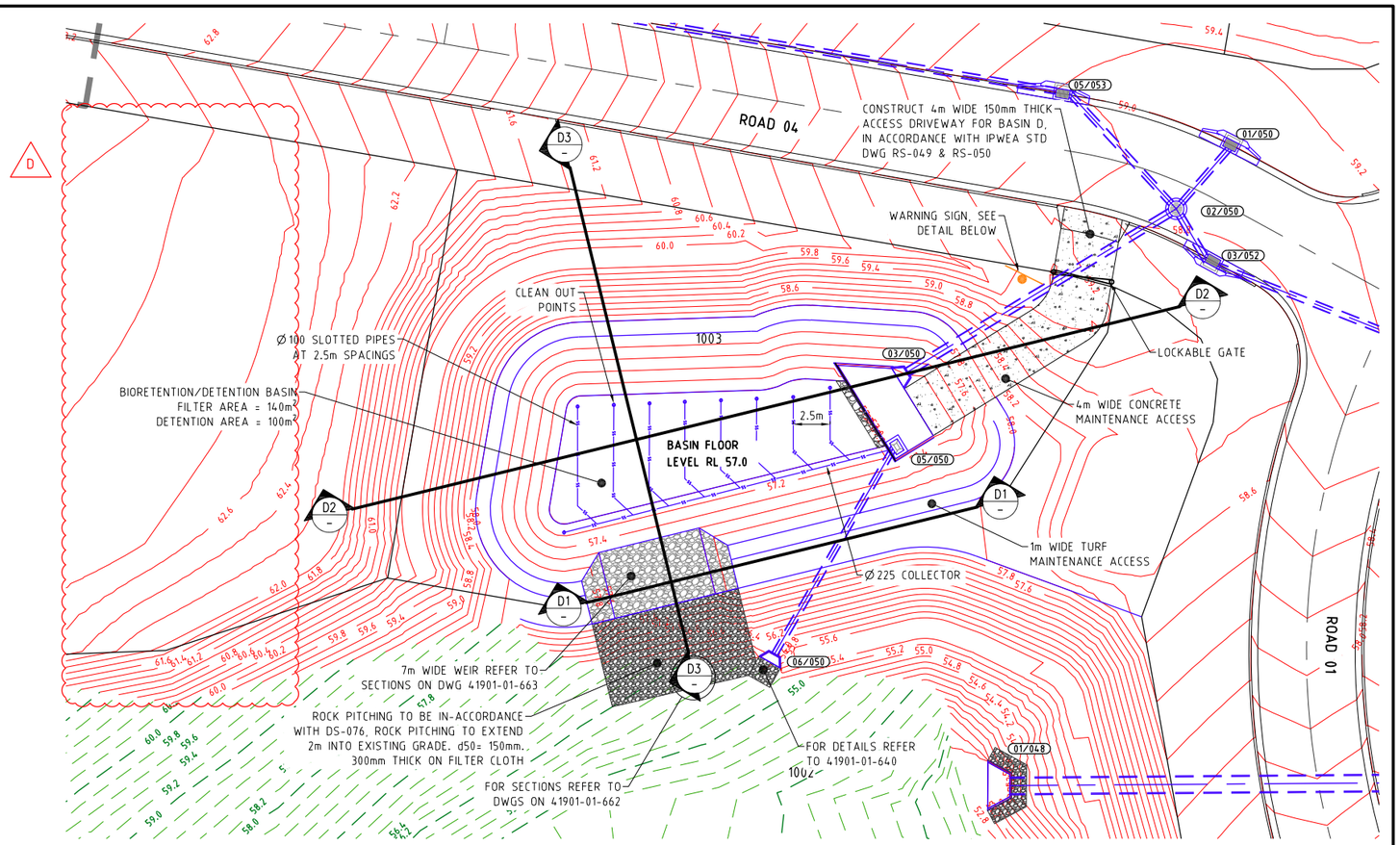
LEGEND

- EXISTING PROPERTY LINE
- 1.0 EXISTING CONTOURS
- SW EXISTING STORMWATER
- FUTURE PROPERTY LINE
- SW FUTURE STORMWATER
- SITE BOUNDARY
- STAGE BOUNDARY
- PROPERTY LINE
- PROPOSED KERB
- 1.0 DESIGN CONTOURS
- SW PROPOSED STORMWATER
- MANHOLE
- FIELD INLET
- KERB INLET (ON GRADE) PIT
- KERB INLET (SAG) PIT
- HEADWALL
- SCOUR PROTECTION
- 10/001 STORMWATER PIT & LINE NO.

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FLOOD WARNING SIGN
NOT TO SCALE



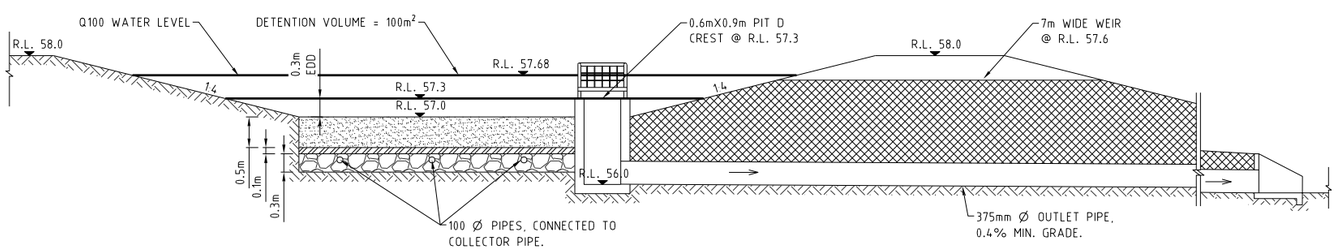
BASIN D PLAN
SCALE 1:200 - A1 (1:400 - A3)

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

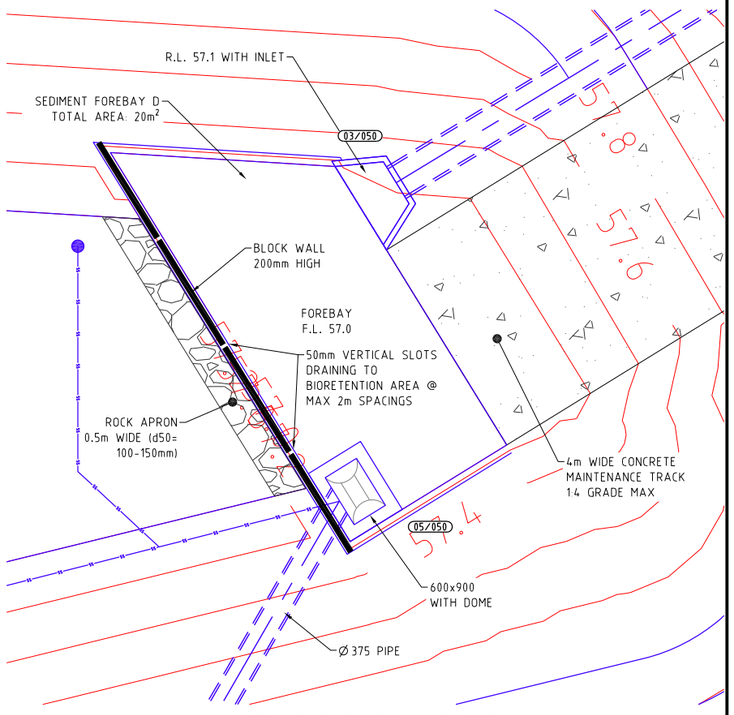
Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



BASIN D CROSS SECTION
SCALE 1:50 - A1 (1:100 - A3)



SEDIMENT FOREBAY D DETAIL
SCALE 1:50 - A1 (1:100 - A3)

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 0.5 1.0 1.5 2.0 2.5m
Scale 1:50 - A1 (1:100 - A3)
0 2 4 6 8 10m
Scale 1:200 - A1 (1:400 - A3)

REV	DATE	DESCRIPTION	INT
D	19-06-24	CONTOURS REVISED	BL
C	14-07-23	RFI AMENDMENTS	EP
B	20-03-23	LOCKABLE GATE AND NOTES ADDED	JB
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT+BENNETT

DRAWING TITLE

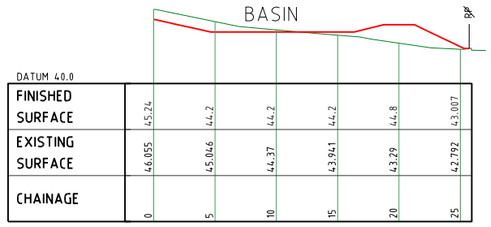
STORMWATER BASIN
PLAN AND DETAILS
SHEET 02

MORTONS urbansolutions
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Civil Engineering
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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER 41901-01-661
REV D

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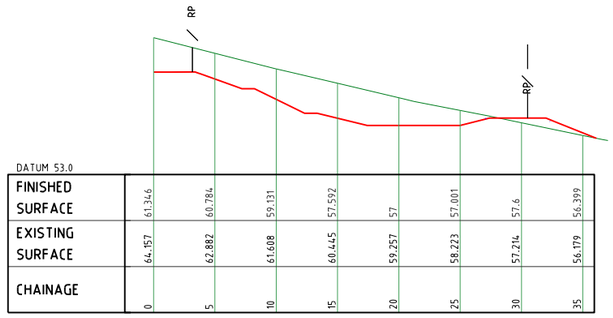


DATUM 40.0

FINISHED SURFACE	45.24	44.2	44.2	44.2	44.8	43.007
EXISTING SURFACE	46.055	45.046	44.37	43.941	43.29	42.792
CHAINAGE	0	5	10	15	20	25

LONGITUDINAL SECTION C3

Horizontal scale 1:250
Vertical scale 1:250



DATUM 53.0

FINISHED SURFACE	61.346	60.784	59.131	57.592	57	57.001	57.6	56.399
EXISTING SURFACE	64.157	62.882	61.608	60.445	59.257	58.223	57.214	56.179
CHAINAGE	0	5	10	15	20	25	30	35

LONGITUDINAL SECTION D3

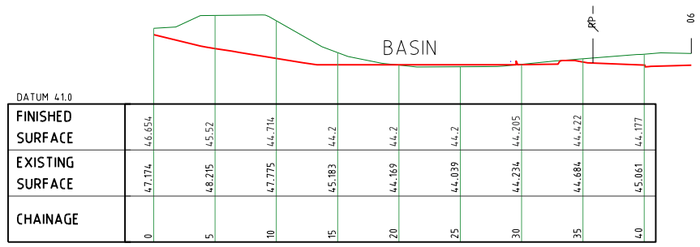
Horizontal scale 1:250
Vertical scale 1:250

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

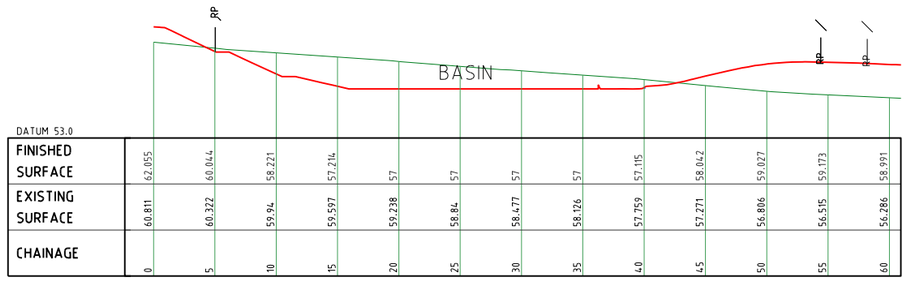


DATUM 41.0

FINISHED SURFACE	46.654	45.52	44.714	44.2	44.2	44.2	44.205	44.422	44.177
EXISTING SURFACE	47.174	48.215	47.775	45.183	44.169	44.039	44.234	44.684	45.061
CHAINAGE	0	5	10	15	20	25	30	35	40

LONGITUDINAL SECTION C2

Horizontal scale 1:250
Vertical scale 1:250

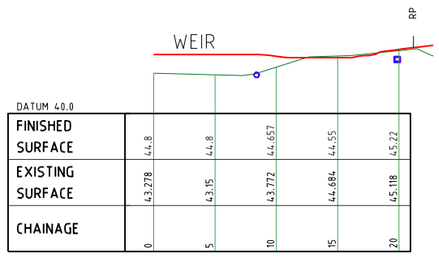


DATUM 53.0

FINISHED SURFACE	62.055	60.044	58.221	57.214	57	57	57	57	57.115	58.042	59.027	59.173	58.991
EXISTING SURFACE	60.811	60.322	59.94	59.597	59.238	58.84	58.477	58.126	57.759	57.271	56.806	56.515	56.286
CHAINAGE	0	5	10	15	20	25	30	35	40	45	50	55	60

LONGITUDINAL SECTION D2

Horizontal scale 1:250
Vertical scale 1:250

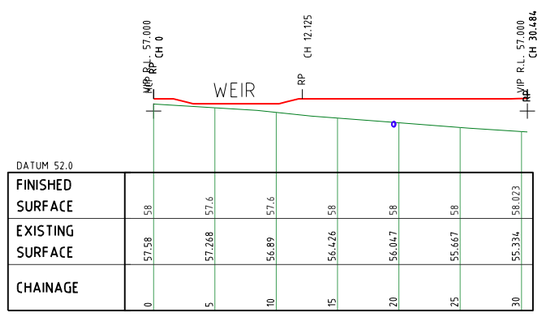


DATUM 40.0

FINISHED SURFACE	44.8	44.8	44.657	44.55	45.22
EXISTING SURFACE	43.278	43.15	43.772	44.684	45.118
CHAINAGE	0	5	10	15	20

LONGITUDINAL SECTION C1

Horizontal scale 1:250
Vertical scale 1:250



DATUM 52.0

FINISHED SURFACE	58	57.6	57.6	58	58	58	58.023
EXISTING SURFACE	57.58	57.268	56.89	56.426	56.047	55.667	55.334
CHAINAGE	0	5	10	15	20	25	30

LONGITUDINAL SECTION D1

Horizontal scale 1:250
Vertical scale 1:250

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

0 2.5 5 7.5 10 12.5m
Scale 1:250 - A1 (1:500 - A3)

REV	DATE	DESCRIPTION	INT
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT+BENNETT

DRAWING TITLE

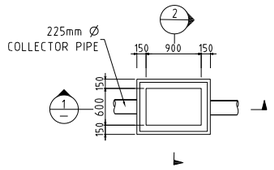
STORMWATER
BASIN
SECTIONS

MORTONS urbansolutions
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Civil Engineering
Project Coordination
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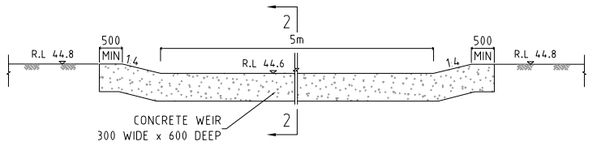
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APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER: 41901-01-662
REV: A

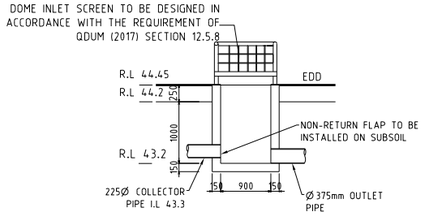
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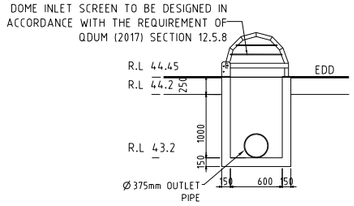
OVERFLOW STRUCTURE PLAN - PIT C



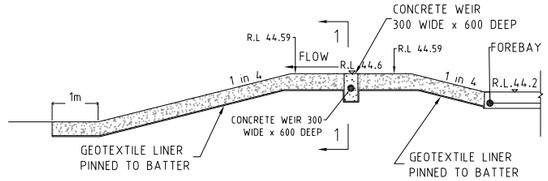
WEIR DETAIL SECTION 1-1



SECTION 1 - 1

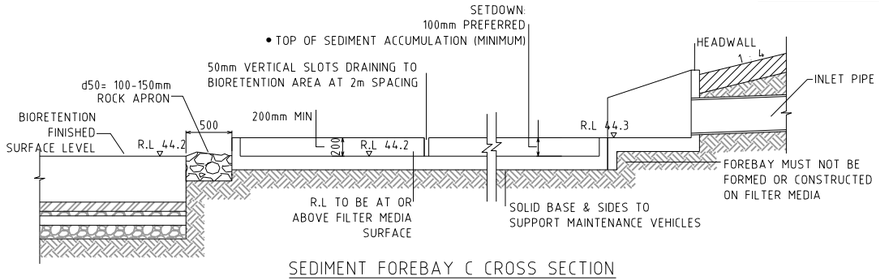


SECTION 2 - 2



WEIR CROSS SECTION 2-2

BASIN C OUTLET DETAILS



SEDIMENT FOREBAY C CROSS SECTION

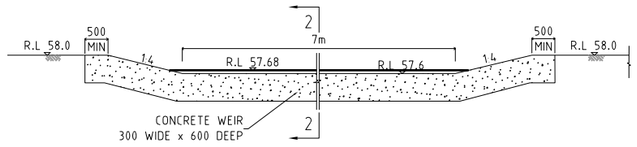
PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

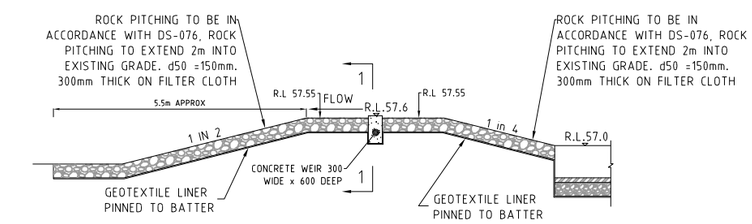
Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

BASIN C INLET DETAILS

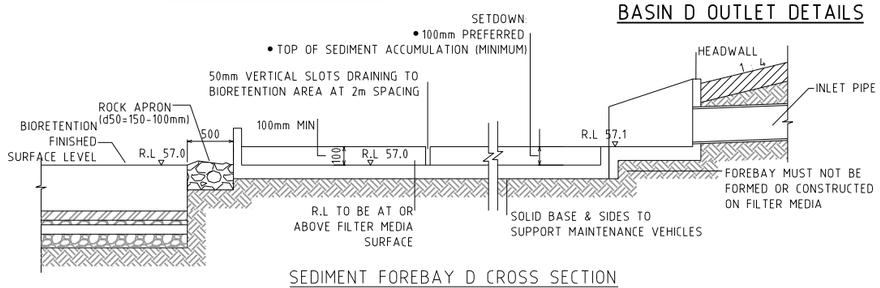


WEIR DETAIL SECTION 1-1



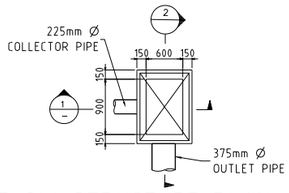
WEIR CROSS SECTION 2-2

BASIN D OUTLET DETAILS

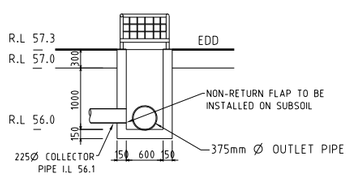


SEDIMENT FOREBAY D CROSS SECTION

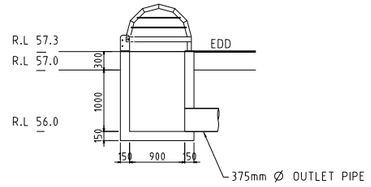
BASIN D INLET DETAILS



OVERFLOW STRUCTURE PLAN - PIT D



SECTION 1 - 1



SECTION 2 - 2

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

REV	DATE	DESCRIPTION	INT
C	14-07-23	RFI AMENDMENTS	EP
B	09-03-23	NOTES AND DETAILS AMENDED	JB
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING

Robin Russell & ASSOCIATES PTY. LTD.

BENNETT+BENNETT

DRAWING TITLE

STORMWATER BASIN DETAILS SHEET 01

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Urban & Regional Planning
Civil Engineering
Project Coordination

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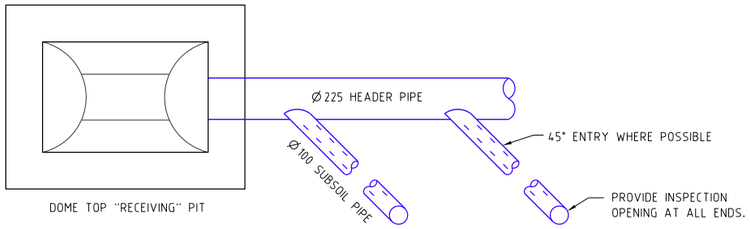
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APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER 41901-01-663

REV C

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NOTES:
1. STRUCTURAL STABILITY AND PERMEABILITY OF WATER RETENTION BUNDS TO BE DESIGNED BY GEOTECHNICAL ENGINEER.
2. CONSTRUCTION TIMING OF BIO-RETENTION MEDIA DETAILED IN CONTRACT. PLANTING OF MEDIA TO OCCUR AFTER 80% DWELLING COMPLETION



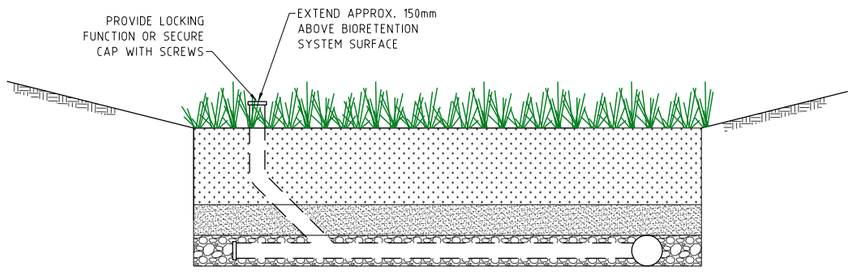
HEADER & SUBSOIL DETAILS
N.T.S.

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

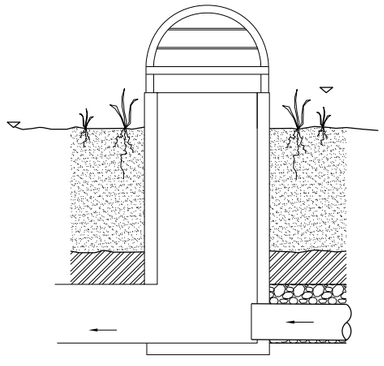
Application No: MIN/2024/360

Dated: 31 July 2024

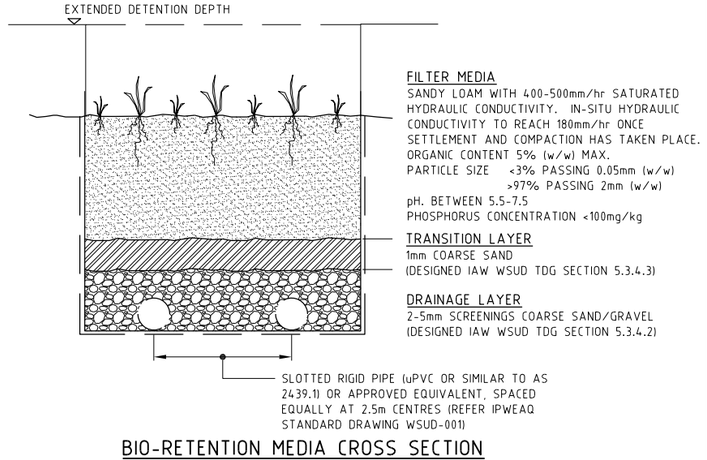
Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



BIORETENTION FILTER TYPICAL SECTION
N.T.S.



HEADER PIPE CONNECTION DETAIL
N.T.S.



BIO-RETENTION MEDIA CROSS SECTION
N.T.S.
* LAYER THICKNESSES AND MATERIAL SPECIFICATIONS ARE INDICATIVE ONLY, REFER TO APPROVED STORMWATER MANAGEMENT PLAN.

PROJECT NAME
COURTNEY DR
UPPER COOMERA

STAGE 01

RP DESCRIPTION
LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT
HB Land

REV	DATE	DESCRIPTION	INT
A	03-03-23	COUNCIL ISSUE	JB

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BIOME WATER AND ENVIRONMENTAL CONSULTING
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BENNETT+BENNETT

DRAWING TITLE
STORMWATER BASIN DETAILS SHEET 02

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Suite 9, 19 Short St
Southport QLD 4215

DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

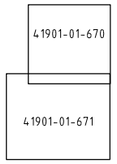
DRAWING NUMBER 41901-01-664
REV A

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LEGEND

- EXISTING STORMWATER
- EXISTING ROOFWATER
- EXISTING SUBSOIL
- EXISTING KERB (INVERT)
- EXISTING CONTOURS
- EXISTING PROPERTY LINE
- FUTURE STORMWATER
- FUTURE ROOFWATER
- FUTURE SUBSOIL
- FUTURE KERB (INVERT)
- FUTURE PROPERTY LINE
- FUTURE CONTOURS
- SITE BOUNDARY
- STAGE BOUNDARY
- PROPOSED KERB (INVERT)
- PROPOSED PROPERTY LINE
- DESIGN CONTOURS
- CATCHMENT BOUNDARY (MINOR)
- CATCHMENT BOUNDARY (MAJOR)
- OVERLAND FLOW
- PROPOSED STORMWATER
- PROPOSED ROOFWATER
- PROPOSED SUBSOIL
- MANHOLE
- KERB INLET (ON GRADE) PIT
- KERB INLET (SAG) PIT
- HEADWALL
- SCOUR PROTECTION
- 01/015 0.2552ha CATCHMENT NUMBER & AREA

SHEET LAYOUT



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 10 20 30 40 50m

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

REV	DATE	DESCRIPTION	INT
D	19-06-24	LAYOUT & CONTOURS AMENDED	BL
C	20-12-23	CATCHMENT 01/60 REMOVED & 04/43 UPDATED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT+BENNETT

DRAWING TITLE

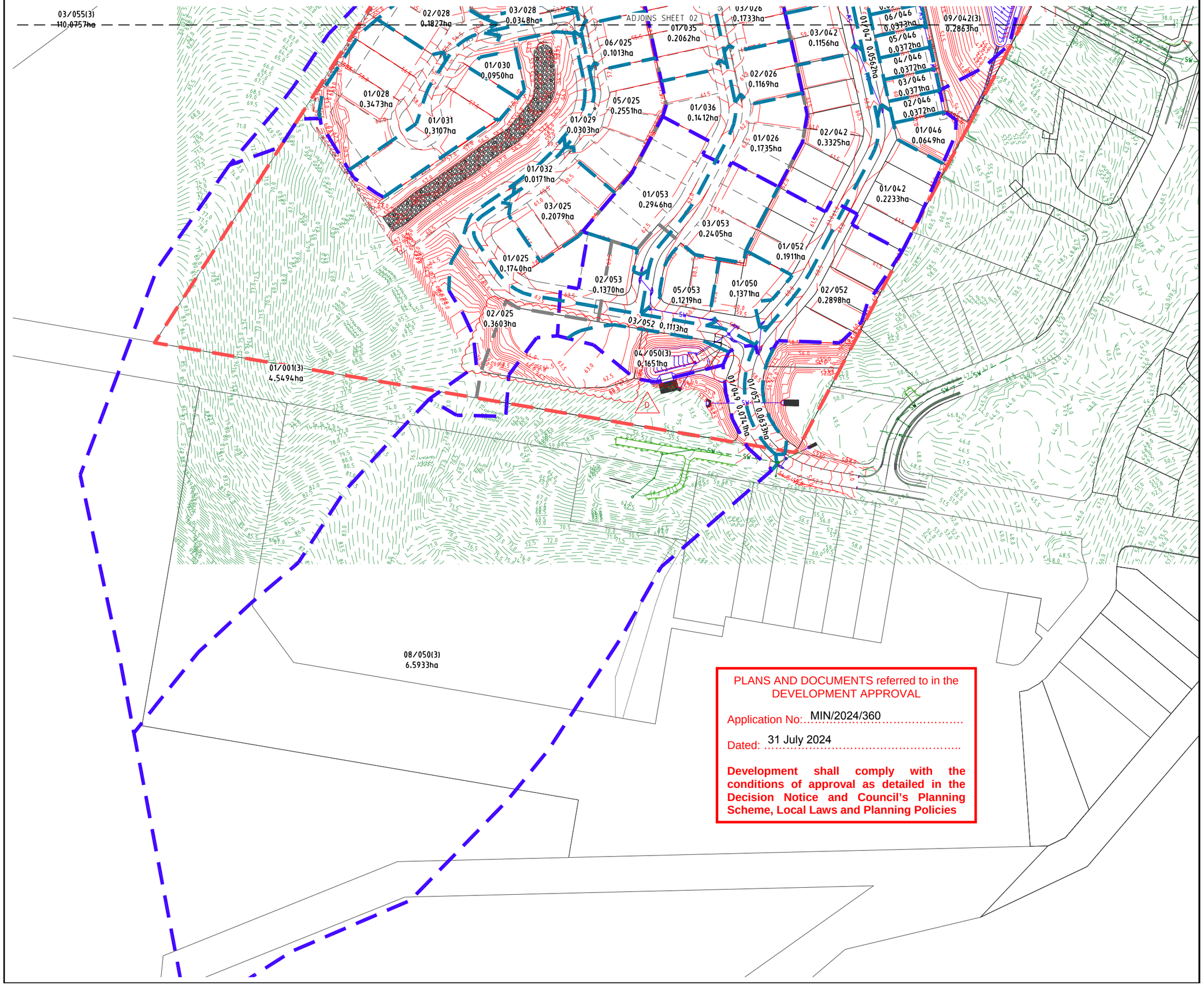
STORMWATER CATCHMENT PLAN SHEET 01

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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER 41901-01-670 REV D

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PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 10 20 30 40 50m

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

REV	DATE	DESCRIPTION	INT
D	19-06-24	LAYOUT & CONTOURS AMENDED	BL
C	23-02-24	CONTOURS LOT 110 AMENDED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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DRAWING TITLE

STORMWATER
CATCHMENT PLAN
SHEET 02

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41901-01-671	D

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CALCULATION TABLES-MINOR 2YR ARI

0.5 ARI (Q2) MINOR FLOW - 12D DYNAMIC DRAINAGE RESULTS

* REFER TO IFD TABLE FOR MAXIMUM INTENSITY DURING STORM

NOTE: NEGATIVE FLOW VALUES INDICATE REVERSE FLOWS			CATCHMENT AREA			RAINFALL VOLUME*		RAINFALL Coef.		CATCHMENT FLOW				APPROACH FLOW					FLOW AT PIT					PIT		HGL			PIPE	HEADLOSSES							
NODE			A.1	A.2	A.3	CRITICAL	INTENSITY		CURRENT	A.1	A.2	A.3	CRITICAL	GRADE	FLOW				CAPTURED	BYPASS			GRADE	GRATE	PIT	PIPE		GRADE	FLOW	COEFFICIENT		HEADLOSS		CAPACITY	VELOCITY	NODE
FROM	TO	NODE TYPE	HA	HA	HA	STORM	MM/HR	10 YR	Storm	HA	HA	HA	ARI MIN	%	L/S	WIDTH	DxV		L/S	L/S	DxV	NODE	%	RL	RL	U/S RL	D/S RL	%	M3/S	Ku	Kw	Ku	Kw	RATIO	M/S	
01/42	02/42	INLET GULLY ON GRADE (LG) Type S Lintel	0.223			90	61.3	0.877	0.830	0.074			60	2.2	74	1.07	0.00		72	0	0.00	01/47	2.200	60.003	59.03	59.00	58.31	1.84	0.07	7.0	0.0	0.0	0.0	0.220	1.450	01/42
02/42	03/42	INLET GULLY ON GRADE (LG) Type S Lintel	0.333			90	61.3	0.877	0.830	0.110			60	2.2	110	1.53	0.01		94	14	0.01	03/42	2.200	59.188	58.31	58.31	57.64	2.11	0.17	3.3	0.0	0.0	0.0	0.500	2.430	02/42
03/42	04/42	INLET GULLY ON GRADE (LG) Type S Lintel	0.116			90	61.3	0.877	0.830	0.038			60	2.2	52	1.07	0.00		52	0	0.00	04/42	2.200	58.494	57.64	57.61	56.96	2.14	0.24	1.1	0.0	0.0	0.0	0.720	2.810	03/42
04/42	05/42	INLET GULLY ON GRADE (LG) Type S Lintel	0.115			90	61.3	0.877	0.830	0.038			60	2.2	38	0.00	0.00		38	0	0.00	01/41	2.200	57.822	56.86	56.86	52.31	8.97	0.27	1.8	0.0	0.0	0.0	0.390	4.820	04/42
05/42	06/42	DRAINWAYS 1TC50 ON GRADE	0.173			90	61.3	0.877	0.830	0.057			60	12.5	57	1.19	0.01		50	7	0.01	06/42	12.528	53.925	52.31	52.29	49.22	13.05	0.44	1.1	0.0	0.0	0.0	0.530	6.610	05/42
06/42	07/42	INLET GULLY ON GRADE (LG) Type S Lintel	0.100			90	61.3	0.877	0.830	0.033			60	16.0	40	1.13	0.00		36	3	0.00	04/43	16.000	50.258	49.09	49.08	46.06	15.08	0.47	0.5	0.0	0.0	0.0	0.530	7.610	06/42
07/42	08/42	MANHOLE 1200mm DIA											25	1.0	0				0				1.000	47.123	45.24	45.02	44.92	0.77	0.19	1.8	0.0	0.2	0.0	1.820	1.680	07/42
08/42	09/42	INLET GULLY ON GRADE (LG) Type S Lintel	0.113			90	61.3	0.877	0.830	0.037			60	13.4	37	0.00	0.00		37	0	0.00	O 08/42	13.420	45.395	44.92	44.72	44.63	1.07	0.22	1.0	0.0	0.2	0.0	1.910	2.040	08/42
09/42	10/42	HEADWALL											25	1.0	0				0				1.000	44.800	44.58	44.58	44.58	0.00	0.22	0.0	0.0	0.0	0.0			09/42
10/42	11/42	BASIN NODE FOR CALCULATIONS			0.286							0.060	60	1.0	60				60				1.000	44.800	44.58	44.58	44.58	0.00	0.23	0.0	0.0	0.0	0.0			10/42
11/42	12/42	TYPE 2 FIELD INLET 900x900 GRATE											60	1.0	233	0.00	0.00		233	0	0.00	O 11/42	1.000	44.450	43.45	43.38	41.91	8.46	0.23	3.7	0.0	0.1	0.0	0.350	3.840	11/42
12/42	13/42	MANHOLE 1200mm DIA											25	1.0	0				0				1.000	43.085	40.81	40.76	39.39	3.94	0.64	2.1	0.0	0.1	0.0	0.410	4.290	12/42
13/42		MANHOLE 1050mm DIA											25	1.0	0				0				1.000	40.827	39.39											13/42
01/43	02/43	TYPE 2 FIELD INLET 900x600 GRATE	0.008			90	61.3	0.877	0.830	0.002			25	1.0	2	0.00	0.00		2	0	0.00	02/43	1.000	48.600	47.02	47.02	44.32	20.00	0.00	9.7	0.0	0.0	0.0	0.010	2.070	01/43
02/43	03/43	TYPE 2 FIELD INLET 900x600 GRATE	0.009			90	61.3	0.877	0.830	0.003			25	1.0	3	0.00	0.00		3	0	0.00	03/43	1.000	45.100	43.79	43.79	42.73	7.85	0.01	3.3	0.0	0.0	0.0	0.030	1.890	02/43
03/43	04/43	TYPE 2 FIELD INLET 900x900 GRATE	0.020			90	61.3	0.877	0.830	0.006			25	1.0	6	0.00	0.00		6	0	0.00	04/43	1.000	43.727	41.95	41.95	41.83	1.77	0.01	3.2	0.0	0.0	0.0	0.020	1.250	03/43
04/43	12/42	INLET GULLY ON GRADE (LG) Type S Lintel	0.102			90	61.3	0.877	0.830	0.034			60	9.7	36	0.00	0.00		36	0	0.00	O 04/43	9.670	43.038	41.83	41.78	41.69	5.29	0.05	6.0	0.0	0.1	0.0	0.060	1.920	04/43
12/42	13/42	MANHOLE 1200mm DIA											25	1.0	0				0				1.000	43.085	40.81											12/42
10/42	11/42	BASIN NODE FOR CALCULATIONS			0.286							0.060	60	1.0	60				60				1.000	44.800	44.58	44.58	44.58	0.00	0.04	0.0	0.0	0.0	0.0			10/42
01/44	02/44	WEIR FOR CALCULATIONS											25	1.0	0				0				1.000	44.800	44.58	44.58	44.57	0.90	0.04	0.0	0.0	0.0	0.0	0.130	0.360	01/44
02/44	03/44	WEIR FOR CALCULATIONS											25	1.0	0				0				1.000	44.800	44.56	44.56	43.01	13.07	0.04	0.0	0.0	0.0	0.0	0.000	1.290	02/44
03/44		REFERENCE											25	9.7	0				0				9.670	43.000	43.01											03/44
01/45	02/45	Ø225 RISER (EXTEND 300mm ABOVE FSL)	0.020			90	61.3	0.877	0.830	0.006			25	1.0	6				6				1.000	47.971	46.48	46.47	46.44	0.58	0.01	6.9	0.0	0.0	0.0	0.090	0.800	01/45
02/45	07/42	INLET GULLY ON GRADE (LG) Type S Lintel	0.224			90	61.3	0.877	0.830	0.074			60	1.0	74	1.14	0.00		72	1	0.00	O 02/45	1.000	47.606	46.44	46.40	45.54	10.12	0.08	8.6	0.0	0.0	0.0	0.110	3.130	02/45
07/42	08/42	MANHOLE 1200mm DIA											25	1.0	0				0				1.000	47.123	45.24											07/42
01/46	02/46	TYPE 2 FIELD INLET 900x900 GRATE	0.065			90	61.3	0.877	0.830	0.021			60	1.0	21				21				1.000	58.700	56.87	56.87	56.62	1.97	0.02	9.7	0.0	0.0	0.0	0.260	1.150	01/46
02/46	03/46	TYPE 2 FIELD INLET 600x600 GRATE	0.037			90	61.3	0.877	0.830	0.012			60	1.0	12				12				1.000	57.400	56.62	56.60	56.49	0.90	0.03	1.7	0.0	0.0	0.0	0.650	1.200	02/46
03/46	04/46	TYPE 2 FIELD INLET 600x600 GRATE	0.037			90	61.3	0.877	0.830	0.012			60	1.0	12				12				1.000	57.250	56.49	56.48	56.41	0.56	0.05	0.6	0.0	0.0	0.0	0.510	1.230	03/46
04/46	05/46	TYPE 2 FIELD INLET 600x600 GRATE	0.037			90	61.3	0.877	0.830	0.012			60	1.0	12				12				1.000	57.100	56.36	56.36	56.09	2.16	0.06	1.1	0.0	0.0	0.0	0.320	2.110	04/46
05/46	06/46	TYPE 2 FIELD INLET 900x600 GRATE	0.037			90	61.3	0.877	0.830	0.012			60	1.0	12				12				1.000	57.100	56.02	56.01	55.74	2.18	0.07	0.4	0.0	0.0	0.0	0.210	2.370	05/46
06/46	07/46	TYPE 2 FIELD INLET 900x600 GRATE	0.037			90	61.3	0.877	0.830	0.012			60	1.0	12				12				1.000	56.750	55.73	55.73	55.47	2.10	0.08	0.9	0.0	0.0	0.0	0.240	2.200	06/46
07/46	08/46	TYPE 2 FIELD INLET 900x600 GRATE	0.037			90	61.3	0.877	0.830	0.012			60	1.0	12				12				1.000	56.450	55.47	55.46	55.29	1.42	0.09	0.8	0.0	0.0	0.0	0.360	2.030	07/46
08/46	09/46	TYPE 2 FIELD INLET 900x600 GRATE	0.037			90	61.3	0.877	0.830	0.012			60	1.0	12				12				1.000	56.150	55.22	55.21	54.52	6.61	0.11	0.8	0.0	0.0	0.0	0.180	3.840	08/46
09/46	05/42	MANHOLE C/W CONVERTER SLAB 600x600 GRATE	0.041			90	61.3	0.877	0.830	0.014			60	1.0	14				14				1.000	55.850	53.27	53.26	52.49	5.09	0.12	2.2	0.0	0.0	0.0	0.230	3.310	09/46
05/42	06/42	DRAINWAYS 1TC50 ON GRADE	0.173			90	61.3	0.877	0.830	0.057			60	12.5	57	1.19	0.01		50	7	0.01	06/42	12.528	53.925	52.31											05/42
01/47	03/42	INLET GULLY ON GRADE (LG) Type S Lintel	0.056			90	61.3	0.877	0.830	0.019			60	2.2	19	0.00	0.00		19	0	0.00	08/42	2.200	58.494	57.65	57.60	57.64	-0.61	0.02	7.0	0.0	0.1	0.0	0.060	0.690	01/47
03/42	04/42	INLET GULLY ON GRADE (LG) Type S Lintel	0.116			90	61.3	0.877	0.830	0.038			60	2.2	52	1.07	0.00		52	0	0.00	04/42	2.200	58.494	57.64											03/42
01/48	02/48	INLET HEADWALL											25	1.0	0				0				1.000	54.000	53.98	53.84	53.00	2.06	1.97	0.5	0.0	0.1	0.0	0.710	2.620	01/48
02/48	03/48	INLET HEADWALL											25	1.0	0				0				1.000	53.750	52.42	52.42	50.02	10.07	1.97	0.0	0.0	0.0	0.0	0.010	4.660	02/48
03/48	04/48	100% CAPTURE FOR FUTURE EXTENSION											25	1.0	0				0				1.000	50.930	50.02	50.02	49.50	4.64	2.02	0.0	0.0	0.0	0.0	0.020	4.230	03/48
04/48		REFERENCE											25	1.0	0				0				1.000	50.410	49.50											04/48
01/49	02/49	INLET GULLY ON GRADE (LG) Type S Lintel	0.074			90	61.3	0.877	0.830	0.024			60	8.0	24				24				7.988	54.341	53.40	53.37	53.26	2.22	0.02	9.7	0.0	0.0	0.0	0.070	1.300	01/49
02/49	03/49	MANHOLE 1050mm DIA											25	1.0	0				0				1.000	54.389	52.31	52.31	51.63	6.52	0.06	2.1	0.0	0.0	0.0	0.030	2.970	02/49
03/49	04/49	REFERENCE											25	1.0	0				0				1.000	53.534	51.63	51.63	51.39	6.90	0.06	0.0	0.0	0.0	0.0	0.030	3.020	03/49
04/49	03/48	HEADWALL											25	1.0	0				0				1.000	51.577	51.34	51.34	50.02	6.12	0.06	0.0	0.0	0.0	0.0	0.000	0.870	04/49
03/48	04/48	100% CAPTURE FOR FUTURE EXTENSION											25	1.0	0				0				1.000	50.930	50.02											03/48
01/50	02/50	INLET GULLY IN SAG (LS) Type S Lintel	0.137			90	61.3	0.877	0.830	0.045			60	0.5	45	1.07	0.00		45	0	0.00	03/52	0.479	58.903	58.15	58.12	58.07	0.95	0.04	9.7	0.0	0.0	0.0	0.140	1.320	01/50
02/50	03/50	MANHOLE 1050mm DIA											25	1.0	0				0				1.000	58.848	58.07	57.77	57.56	1.00	0.47	1.5	0.0	0.3	0.0	1.230	2.240	02/50
03/50	04/50	HEADWALL											25	1.0	0				0				1.000	57.800	57.55	57.55	57.55	0.00	0.47	0.0	0.0	0.0	0.0			03/50
04/50	05/50	BASIN NODE FOR CALCULATIONS			0.165							0.034	60	1.0	34				34				1.000	57.000	57.55	57.55	57.55	0.00	0.39	0.0	0.0	0.0	0.0			04/50
05/50	06/50	TYPE 2 FIELD INLET 900x600 C/W DOME TOP											60	1.0	390	0.00	0.00		390	0	0.00	07/50	1.000	57.300	57.55	56.69	55.68	6.19	0.39	1.9	0.0	0.9	0.0	0.890	3.830	05/50
06/50	07/50	HEADWALL											25	1.0	0				0				1.000	56.065	55.40	55.40	55.40	0.00	0.39	0.0	0.0	0.0	0.0			06/50
07/50	01/48	BASIN NODE FOR CALCULATIONS			6.593							1.814	60	1.0	1814				1814				1.000	54.400	53.98	53.97	53.97	0.00	1.97	0.0	0.0	0.0	0.0			07/50
01/48	02/48	INLET HEADWALL											25	1.0	0				0				1.000	54.000	53.98											01/48
04/50	05/50	BASIN NODE FOR CALCULATIONS			0.165							0.034	60	1.0	34				34				1.000	57.000	57.55	57.60	57.60	0.00	0.00	0.0	0.0	0.0	0.0			04/50
07/50	01/48	BASIN NODE FOR CALCULATIONS			6.593							1.814	60	1.0	1814				1814				1.000	54.400	53.98											07/50
01/52	02/52	INLET GULLY ON GRADE (LG) Type S Lintel	0.191			90	61.3	0.877	0.830	0.063			60	2.7	63	0.00	0.00		63	0	0.00	01/50	2.738	59.258	58.53	58.38	58.37	0.09	0.06	9.7	0.0	0.2	0.0	0.180	1.550	01/52
02/52	03/52	INLET GULLY ON GRADE (LG) Type S Lintel	0.290			90	61.3	0.877	0.830	0.096			60	3.1	96	1.40	0.01		77	17	0.01	01/57	3.071	58.914	58.37	58.21	58.12	0.60	0.14	4.9	0.0	0.2	0.0	0.350	2.030	02/52
03/52	02/50	INLET GULLY IN SAG (LS) Type S Lintel	0.111			90	61.3	0.877	0.830	0.037			60	0.7	37	1.07	0.00		37	0	0.00	01/49	0.694	58.763	58.12	58.11	58.07	1.04	0.17	1.0	0.0	0.0	0.0	0.460	1.180	03/52
02/50	03/50	MANHOLE 1050mm DIA											25	1.0	0				0				1.000	58.848	58.07											02/50
01/53	02/53	INLET GULLY ON GRADE (LG) Type S Lintel	0.295			90	61.3	0.877	0.830	0.097			60	0.6	97	1.53	0.00		91	6	0.01	02/53	0.600	61.686	61.18	61.08	61.00	2.11	0.09	6.9	0.0	0.1	0.0	0.280	1.320	01/53
02/53	03/53	INLET GULLY IN SAG (LS) Type S Lintel	0.137			90	61.3	0.877	0.830	0.045			60	1.6	51	1.07	0.00		51	0	0.00	03/53	1.602	61.662	61.00	60.92	60.82	1.19	0.14	1.9	0.0	0.1	0.0	0.610	1.470	02/53
03/53	04/53	INLET GULLY IN SAG (LS) Type S Lintel	0.241			90	61.3	0.877	0.830	0.079			60	0.3	79	1.28	0.01		69	9	0.01	05/53	0.262	61.647	60.82	60.68	60.43	2.49	0.21	1.7	0.0	0.1	0.0	0.650	2.230	03/53
04/53	05/53	MANHOLE 1050mm DIA											25	1.0	0				0				1.000	61.584	60.34	60.33	58.47	4.97	0.21	1.9	0.0	0.0	0.0	0.360	3.570	04/53
05/53	02/50	INLET GULLY ON GRADE (LG) Type S Lintel	0.122			90	61.3	0.877	0.830	0.040			60	3.9	49	0.00	0.00		48	0	0.00	01/50	3.888	59.070	58.47	58.46	58.07	3.64	0.26	1.4	0.0	0.2	0.0	0.570	2.320	05/53
02/50	03/50	MANHOLE 1050mm DIA											25	1.0	0				0				1.000	58.848	58.07											02/50
07/42	08/42	MANHOLE 1200mm DIA											25	1.0	0				0				1.000	47.123	45.24	45.24	41.77	10.65	0.36	2.0	0.0	0.0	0.0	0.300	6.030	07/42
12/42	13/42	MANHOLE 1200mm DIA											25	1.0	0				0				1.000	43.085	40.81											12/42
01/57	02/49	INLET GULLY ON GRADE (LG) Type S Lintel	0.063			90	61.3	0.877	0.830	0.021			60	9.2	38	0.00	0.00		38	0	0.00	O 01/57	9.205	54.628	53.58	53.55	53.25	8.40	0.04	9.7	0.0	0.0	0.0	0.060	2.300	01/57
02/49	03/49	MANHOLE 1050mm DIA											25	1.0	0				0				1.000	54.389	52.31											02/49

INTENSITY - FREQUENCY - DURATION (IFD) TABLE

DURATION	ARI INTENSITY (YEAR)							
MINUTES	TREAT	1	2	5	10	20	50	100
5	62.5	125	158	193	212	239	275	301
6	58.5	117	148	181	199	225	258	284
10	48	96	122	149	164	186	214	235
20	35.2	70.4	89.3	110	122	138	159	175
30	28.7	57.4	72.9	90.1	99.8	113	131	144
60	19.45	38.9	49.5	61.7	68.6	78.1	90.6	100
120	12.6	25.2	32.2	40.5	45.3	51.8	60.3	66.8
180	9.6	19.2	24.7	31.2	35	40.2	46.9	52.1
360	6.05	12.1	15.6	20	22.5	26	30.5	34
720	3.89	7.78	10.1	13	14.8	17.1	20.3	22.7
1440	2.595	5.19	6.73	8.8	10.1	11.7	13.9	15.6
2880	1.74	3.48	4.53	5.98	6.87	8.04	9.59	10.8
4320	1.325	2.65	3.46	4.61	5.3	6.23	7.45	8.42

DERIVED FROM BUREAU OF METEOROLOGY

NOTES:

1. THESE CALCULATIONS ARE BASED ON IISAX2 DYNAMIC DRAINAGE ANALYSIS USING 12D SOFTWARE ANALYSIS.
2. INDIVIDUAL TIMES OF CONCENTRATION ARE GENERATED FOR EACH NODE & CATCHMENT TYPE USING TEMPORAL PATTERNS DETERMINED FROM THE RELEVANT AUTHORITY.
3. "TREAT" IN THE IFD TABLE REFERS TO 0.5x1 YEAR ARI, USED TO DETERMINE WATER QUALITY TREATMENT FLOWS.
4. CATCHMENT 1 REFERS TO TYPICAL URBANISED CATCHMENTS WITH LOTS <1000m2. THE IMPERVIOUS PORTION OF THE CATCHMENT TIME OF CONCENTRATION (TC) IS TYPICALLY 5 MINUTES & THE PERVIOUS PORTION OF THE CATCHMENT TYPICALLY HAS AN 8 MINUTE TC.
5. CATCHMENT 2 IS TYPICALLY USED TO MODEL LOTS >1000m2, WITH INDIVIDUAL PERCENTAGES OF IMPERVIOUS SURFACE & TC'S.
6. CATCHMENT 3 IS TYPICALLY USED TO MODEL OPEN SPACE & RURAL CATCHMENTS WITH INDIVIDUAL PERCENTAGES OF IMPERVIOUS SURFACE & TC'S.

FLOW CAPACITY m3/s 7.5m RD (KERB AND CHANNEL)

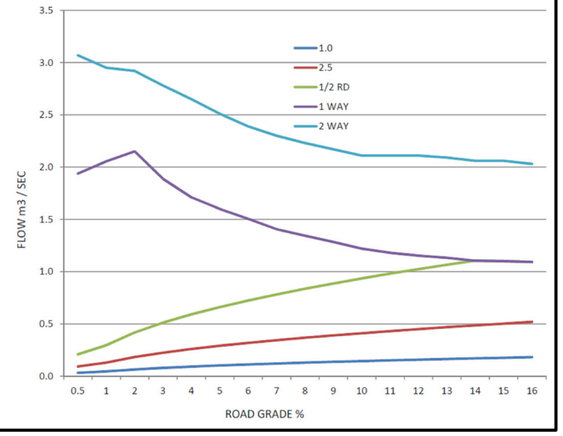
	KR	LANE	1/2 RD	1 WAY	2 WAY
MAX. WIDTH	1.0	2.5	3.75	11.175	14.8
MAX. AREA m2	0.021	0.101	0.219	1.421	2.104
Rd Grade %					
0.5	0.032	0.092	0.209	1.938	3.070
1	0.046	0.130	0.296	2.054	2.950
2	0.064	0.184	0.418	2.150	2.920
3	0.079	0.225	0.512	1.886	2.780
4	0.091	0.260	0.591	1.711	2.650
5	0.102	0.291	0.661	1.600	2.510
6	0.112	0.318	0.724	1.505	2.390
7	0.120	0.344	0.782	1.407	2.300
8	0.129	0.368	0.836	1.345	2.230
9	0.137	0.390	0.887	1.285	2.170
10	0.144	0.411	0.935	1.220	2.110
11	0.151	0.431	0.981	1.180	2.110
12	0.158	0.450	1.024	1.154	2.110
13	0.164	0.469	1.066	1.133	2.090
14	0.170	0.486	1.106	1.105	2.060
15	0.176	0.503	1.101	1.101	2.060
16	0.182	0.520	1.093	1.093	2.030

NOTES:

FLOW CONSTRAINED TO 0.4 DxV

FLOW CONSTRAINED TO 250mm DEEP MAX.

CAPACITY COMPOUND CROSS SECTION (ARR 1987 , 4.38) (n varies)



C

PROJECT NAME

COURTNEY DR
UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

REV	DATE	DESCRIPTION	INT
C	20-12-23	CALC TABLES AMENDED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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Robin Russell & ASSOCIATES PTY. LTD.

BENNETT + BENNETT

DRAWING TITLE

STORMWATER
CALCULATION TABLES
MINOR STORM EVENT

MORTONS urbansolutions
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DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ	4706
DATE	03-03-23		

DRAWING NUMBER: 41901-01-680

REV: C

F:\Autocad Client\419 - HB Land\01 - Courtney Drive\Precinct-Stage 01\Engineering Drawings\Current\41901-01-680.dwg, MINOR, 24/06/2024 2:38:21 PM, 1:2

CALCULATION TABLES-MAJOR 100YR ARI

0.01 ARI (Q100) Major FLOW - 12D DYNAMIC DRAINAGE RESULTS

* REFER TO IFD TABLE FOR MAXIMUM INTENSITY DURING STORM

NOTE	NEGATIVE FLOW VALUES INDICATE REVERSE FLOWS		CATCHMENT AREA			RAINFALL VOLUME*		RAINFALL Coef.		CATCHMENT FLOW				APPROACH FLOW					FLOW AT PIT				PIT		HGL			PIPE	HEADLOSSES						
NODE			A.1	A.2	A.3	CRITICAL	INTENSITY		CURRENT	A.1	A.2	A.3	CRITICAL	GRADE	FLOW				CAPTURED	BYPASS			GRADE	GRATE	PIT	PIPE		GRADE	FLOW	COEFFICIENT		HEADLOSS		CAPACITY	VELOCITY	NODE
FROM	TO	NODE TYPE	HA	HA	HA	STORM	MM/HR	10 YR	Storm	HA	HA	HA	ARI MIN.	%	L/S	WIDTH	DxV	L/S	L/S	DxV	NODE	%	RL.	RL	U/S RL.	D/S RL.	%	M3/S	Ku	Kw	Ku	Kw	RATIO	M/S	
01/42	02/42	INLET GULLY ON GRADE (LG) Type S Lintel	0.223			120	133.6	0.877	0.916	0.124			25	2.2	124	1.74	0.02	96	27	0.02	01/47	2.200	60.003	59.26	59.02	58.96	0.17	0.10	7.0	0.0	0.2	0.0	0.300	1.470	01/42
02/42	03/42	INLET GULLY ON GRADE (LG) Type S Lintel	0.333			120	133.6	0.877	0.916	0.185			25	2.2	185	2.35	0.04	121	62	0.04	03/42	2.200	59.188	58.96	58.91	58.39	1.65	0.21	2.8	0.0	0.1	0.0	0.640	2.380	02/42
03/42	04/42	INLET GULLY ON GRADE (LG) Type S Lintel	0.116			120	133.6	0.877	0.916	0.064			25	2.2	126	1.76	0.02	96	28	0.02	04/42	2.200	58.494	58.39	58.12	57.10	3.35	0.36	1.0	0.0	0.3	0.0	1.120	3.290	03/42
04/42	05/42	INLET GULLY ON GRADE (LG) Type S Lintel	0.115			120	133.6	0.877	0.916	0.064			25	2.2	91	1.41	0.01	77	14	0.01	01/41	2.200	57.822	57.01	56.91	53.89	5.96	0.44	1.5	0.0	0.1	0.0	0.640	4.940	04/42
05/42	06/42	DRAINWAYS 1TCS0 ON GRADE	0.173			120	133.6	0.877	0.916	0.096			25	12.5	96	1.44	0.03	65	31	0.03	06/42	12.528	53.925	53.89	53.16	49.50	15.53	0.73	1.1	0.0	0.8	0.0	0.880	6.950	05/42
06/42	07/42	INLET GULLY ON GRADE (LG) Type S Lintel	0.100			120	133.6	0.877	0.916	0.055			25	16.0	86	1.44	0.02	56	29	0.02	04/43	16.000	50.258	49.50	49.40	46.13	16.28	0.75	0.4	0.0	0.1	0.0	0.850	8.130	06/42
07/42	08/42	MANHOLE 1200mm DIA											25	1.0	0			0				1.000	47.123	45.37	45.11	45.00	0.90	0.20	1.7	0.0	0.3	0.0	1.950	1.800	07/42
08/42	09/42	INLET GULLY ON GRADE (LG) Type S Lintel	0.113			120	133.6	0.877	0.916	0.063			25	13.4	63	1.65	0.01	49	11	0.01	O 08/42	13.420	45.395	45.00	44.75	44.65	1.30	0.25	1.0	0.0	0.2	0.0	2.140	2.260	08/42
09/42	10/42	HEADWALL											25	1.0	0			0				1.000	44.800	44.61	44.61	44.61	0.00	0.25	0.0	0.0	0.0	0.0			09/42
10/42	11/42	BASIN NODE FOR CALCULATIONS			0.286							0.128	25	1.0	128			128				1.000	44.800	44.61	44.61	44.61	0.00	0.16	0.0	0.0	0.0	0.0			10/42
11/42	12/42	TYPE 2 FIELD INLET 900x900 GRATE											25	1.0	157	0.00	0.00	157	0	0.00	O 11/42	1.000	44.450	43.39	43.34	41.88	8.42	0.16	5.4	0.0	0.0	0.0	0.240	3.620	11/42
12/42	13/42	MANHOLE 1200mm DIA											25	1.0	0			0				1.000	43.085	40.96	40.84	39.45	4.00	0.89	1.9	0.0	0.1	0.0	0.570	4.400	12/42
13/42		MANHOLE 1050mm DIA											25	1.0	0			0				1.000	40.827	39.45											13/42
01/43	02/43	TYPE 2 FIELD INLET 900x600 GRATE	0.008			120	133.6	0.877	0.916	0.004			25	1.0	4	0.00	0.00	4	0	0.00	02/43	1.000	48.600	47.03	47.03	44.33	20.00	0.00	9.7	0.0	0.0	0.0	0.020	2.400	01/43
02/43	03/43	TYPE 2 FIELD INLET 900x600 GRATE	0.009			120	133.6	0.877	0.916	0.005			25	1.0	5	0.00	0.00	5	0	0.00	03/43	1.000	45.100	43.80	43.80	42.74	7.86	0.01	3.1	0.0	0.0	0.0	0.060	2.190	02/43
03/43	04/43	TYPE 2 FIELD INLET 900x900 GRATE	0.020			120	133.6	0.877	0.916	0.011			25	1.0	11	0.00	0.00	11	0	0.00	04/43	1.000	43.727	41.97	41.96	41.91	0.72	0.02	3.1	0.0	0.0	0.0	0.040	1.230	03/43
04/43	12/42	INLET GULLY ON GRADE (LG) Type S Lintel	0.102			120	133.6	0.877	0.916	0.057			25	9.7	85	1.87	0.01	64	19	0.02	O 04/43	9.670	43.038	41.91	41.80	41.72	5.23	0.08	6.1	0.0	0.1	0.0	0.100	1.920	04/43
12/42	13/42	MANHOLE 1200mm DIA											25	1.0	0			0				1.000	43.085	40.96											12/42
10/42	11/42	BASIN NODE FOR CALCULATIONS			0.286							0.128	25	1.0	128			128				1.000	44.800	44.61	44.61	44.61	0.00	0.21	0.0	0.0	0.0	0.0			10/42
01/44	02/44	WEIR FOR CALCULATIONS											25	1.0	0			0				1.000	44.800	44.61	44.61	44.60	0.40	0.21	0.0	0.0	0.0	0.0	0.600	0.700	01/44
02/44	03/44	WEIR FOR CALCULATIONS											25	1.0	0			0				1.000	44.800	44.57	44.57	43.02	13.07	0.21	0.0	0.0	0.0	0.0	0.010	2.370	02/44
03/44		REFERENCE											25	9.7	0			0				9.670	43.000	43.02											03/44
01/45	02/45	Ø225 RISER (EXTEND 300mm ABOVE FSL)	0.020			120	133.6	0.877	0.916	0.011			25	1.0	11			11				1.000	47.971	46.52	46.49	46.47	0.23	0.01	7.0	0.0	0.0	0.0	0.150	0.800	01/45
02/45	07/42	INLET GULLY ON GRADE (LG) Type S Lintel	0.224			120	133.6	0.877	0.916	0.125			25	1.0	125	1.99	0.02	99	26	0.02	O 02/45	1.000	47.606	46.47	46.42	45.56	10.13	0.11	7.8	0.0	0.1	0.0	0.150	3.150	02/45
07/42	08/42	MANHOLE 1200mm DIA											25	1.0	0			0				1.000	47.123	45.37											07/42
01/46	02/46	TYPE 2 FIELD INLET 900x900 GRATE	0.065			120	133.6	0.877	0.916	0.036			25	1.0	36			36				1.000	58.700	57.08	57.07	56.82	2.02	0.04	8.0	0.0	0.0	0.0	0.430	1.160	01/46
02/46	03/46	TYPE 2 FIELD INLET 600x600 GRATE	0.037			120	133.6	0.877	0.916	0.021			25	1.0	21			21				1.000	57.400	56.82	56.74	56.57	1.34	0.06	1.6	0.0	0.1	0.0	1.090	1.430	02/46
03/46	04/46	TYPE 2 FIELD INLET 600x600 GRATE	0.037			120	133.6	0.877	0.916	0.021			25	1.0	21			21				1.000	57.250	56.57	56.56	56.48	0.63	0.08	0.6	0.0	0.0	0.0	0.870	1.340	03/46
04/46	05/46	TYPE 2 FIELD INLET 600x600 GRATE	0.037			120	133.6	0.877	0.916	0.021			25	1.0	21			21				1.000	57.100	56.43	56.41	56.13	2.23	0.10	1.1	0.0	0.0	0.0	0.540	2.250	04/46
05/46	06/46	TYPE 2 FIELD INLET 900x600 GRATE	0.037			120	133.6	0.877	0.916	0.021			25	1.0	21			21				1.000	57.100	56.06	56.06	55.81	2.00	0.12	0.3	0.0	0.0	0.0	0.350	2.540	05/46
06/46	07/46	TYPE 2 FIELD INLET 900x600 GRATE	0.037			120	133.6	0.877	0.916	0.021			25	1.0	21			21				1.000	56.750	55.81	55.79	55.56	1.90	0.14	0.9	0.0	0.0	0.0	0.410	2.210	06/46
07/46	08/46	TYPE 2 FIELD INLET 900x600 GRATE	0.037			120	133.6	0.877	0.916	0.021			25	1.0	21			21				1.000	56.450	55.56	55.53	55.34	1.51	0.16	0.8	0.0	0.0	0.0	0.610	2.190	07/46
08/46	09/46	TYPE 2 FIELD INLET 900x600 GRATE	0.037			120	133.6	0.877	0.916	0.021			25	1.0	21			21				1.000	56.150	55.26	55.26	54.55	6.69	0.18	0.8	0.0	0.0	0.0	0.310	4.270	08/46
09/46	05/42	MANHOLE C/W CONVERTER SLAB 600x600 GRATE	0.041			120	133.6	0.877	0.916	0.023			25	1.0	23			23				1.000	55.850	54.25	54.00	53.89	0.75	0.21	2.1	0.0	0.3	0.0	0.410	3.400	09/46
05/42	06/42	DRAINWAYS 1TCS0 ON GRADE	0.173			120	133.6	0.877	0.916	0.096			25	12.5	96	1.44	0.03	65	31	0.03	06/42	12.528	53.925	53.89											05/42
01/47	03/42	INLET GULLY ON GRADE (LG) Type S Lintel	0.056			120	133.6	0.877	0.916	0.031			25	2.2	57	1.07	0.00	57	0	0.00	08/42	2.200	58.494	58.44	58.39	58.39	0.08	0.06	7.0	0.0	0.1	0.0	0.180	0.700	01/47
03/42	04/42	INLET GULLY ON GRADE (LG) Type S Lintel	0.116			120	133.6	0.877	0.916	0.064			25	2.2	126	1.76	0.02	96	28	0.02	04/42	2.200	58.494	58.39											03/42
01/48	02/48	INLET HEADWALL											25	1.0	0			0				1.000	54.000	54.94	54.62	53.31	3.22	3.07	0.5	0.0	0.3	0.0	1.100	3.600	01/48
02/48	03/48	INLET HEADWALL											25	1.0	0			0				1.000	53.750	52.44	52.44	50.05	10.04	3.07	0.0	0.0	0.0	0.0	0.020	5.490	02/48
03/48	04/48	100% CAPTURE FOR FUTURE EXTENSION											25	1.0	0			0				1.000	50.930	50.05	50.05	49.53	4.63	3.17	0.0	0.0	0.0	0.0	0.020	5.010	03/48
04/48		REFERENCE											25	1.0	0			0				1.000	50.410	49.53											04/48
01/49	02/49	INLET GULLY ON GRADE (LG) Type S Lintel	0.074			120	133.6	0.877	0.916	0.041			25	8.0	121			80				7.988	54.341	53.67	53.43	53.32	2.34	0.08	9.7	0.0	0.2	0.0	0.240	1.310	01/49
02/49	03/49	MANHOLE 1050mm DIA											25	1.0	0			0				1.000	54.389	52.35	52.35	51.67	6.62	0.15	2.1	0.0	0.0	0.0	0.070	3.750	02/49
03/49	04/49	REFERENCE											25	1.0	0			0				1.000	53.534	51.67	51.67	51.43	6.90	0.15	0.0	0.0	0.0	0.0	0.070	4.000	03/49
04/49	03/48	HEADWALL											25	1.0	0			0				1.000	51.577	51.35	51.35	50.05	6.05	0.15	0.0	0.0	0.0	0.0	0.000	0.970	04/49
03/48	04/48	100% CAPTURE FOR FUTURE EXTENSION											25	1.0	0			0				1.000	50.930	50.05											03/48
01/50	02/50	INLET GULLY IN SAG (LS) Type S Lintel	0.137			120	133.6	0.877	0.916	0.076			25	0.5	188	2.89	0.05	100	89	0.05	03/52	0.479	58.903	58.74	58.68	58.58	2.05	0.10	9.7	0.0	0.1	0.0	0.310	1.290	01/50
02/50	03/50	MANHOLE 1050mm DIA											25	1.0	0			0				1.000	58.848	58.58	58.05	57.68	1.70	0.67	1.3	0.0	0.6	0.0	1.760	3.120	02/50
03/50	04/50	HEADWALL											25	1.0	0			0				1.000	57.800	57.68	57.68	57.68	0.00	0.67	0.0	0.0	0.0	0.0			03/50
04/50	05/50	BASIN NODE FOR CALCULATIONS			0.165							0.074	25	1.0	74			74				1.000	57.000	57.68	57.68	57.68	0.00	0.40	0.0	0.0	0.0	0.0			04/50
05/50	06/50	TYPE 2 FIELD INLET 900x600 C/W DOME TOP											25	1.0	402	0.00	0.00	402	0	0.00	07/50	1.000	57.300	57.68	56.75	55.68	6.52	0.40	1.9	0.0	0.9	0.0	0.920	3.910	05/50
06/50	07/50	HEADWALL											25	1.0	0			0				1.000	56.065	55.40	55.40	55.40	0.00	0.40	0.0	0.0	0.0	0.0			06/50
07/50	01/48	BASIN NODE FOR CALCULATIONS			6.593							3.391	25	1.0	3391			3391				1.000	54.400	54.94	54.94	54.94	0.00	3.07	0.0	0.0	0.0	0.0			07/50
01/48	02/48	INLET HEADWALL											25	1.0	0			0				1.000	54.000	54.94											01/48
04/50	05/50	BASIN NODE FOR CALCULATIONS			0.165							0.074	25	1.0	74			74				1.000	57.000	57.68	57.68	57.68	0.00	0.31	0.0	0.0	0.0	0.0			04/50
07/50	01/48	BASIN NODE FOR CALCULATIONS			6.593							3.391	25	1.0	3391			3391				1.000	54.400	54.94											07/50
01/52	02/52	INLET GULLY ON GRADE (LG) Type S Lintel	0.191			120	133.6	0.877	0.916	0.106			25	2.7	106	1.61	0.02	86	20	0.01	01/50	2.738	59.258	59.11	58.99	58.97	0.14	0.09	9.7	0.0	0.2	0.0	0.250	1.560	01/52
02/52	03/52	INLET GULLY ON GRADE (LG) Type S Lintel	0.290			120	133.6	0.877	0.916	0.161			25	3.1	161	1.90	0.05	102	73	0.05	01/57	3.071	58.914	58.97	58.88	58.68	1.31	0.18	5.2	0.0	0.2	0.0	0.470	2.030	02/52
03/52	02/50	INLET GULLY IN SAG (LS) Type S Lintel	0.111			120	133.6	0.877	0.916	0.062			25	0.7	148	2.03	0.05	67	81	0.05	01/49	0.694	58.763	58.68	58.63	58.58	1.21	0.24	0.7	0.0	0.1	0.0	0.660	1.530	03/52
02/50	03/50	MANHOLE 1050mm DIA											25	1.0	0			0				1.000	58.848	58.58											02/50
01/53	02/53	INLET GULLY ON GRADE (LG) Type S Lintel	0.295			120	133.6	0.877	0.916	0.164			25	0.6	164	2.46	0.02	127	37	0.02	02/53	0.600	61.686	61.60	61.47	61.38	2.18	0.13	4.2	0.0	0.1	0.0	0.390	1.330	01/53
02/53	03/53	INLET GULLY IN SAG (LS) Type S Lintel	0.137			120	133.6	0.877	0.916	0.076			25	1.6	113	2.62	0.02	86	26	0.02	03/53	1.602	61.662	61.38	61.18	61.04	1.64	0.21	1.6	0.0	0.2	0.0	0.930	1.920	02/53
03/53	04/53	INLET GULLY IN SAG (LS) Type S Lintel	0.241			120	133.6	0.877	0.916	0.134			25	0.3	160	2.11	0.06	69	90	0.05	05/53	0.262	61.647	61.04	60.79	60.48	3.08	0.28	1.4	0.0	0.3	0.0	0.870	2.780	03/53
04/53	05/53	MANHOLE 1050mm DIA											25	1.0	0			0				1.000	61.584	60.45	60.36	59.17	3.17	0.28	1.7	0.0	0.1	0.0	0.480	3.490	04/53
05/53	02/50	INLET GULLY ON GRADE (LG) Type S Lintel	0.122			120	133.6	0.877	0.916	0.068			25	3.9	157	3.02	0.05	94	97	0.06	01/50	3.888	59.070	59.17	59.05	58.58	4.41	0.35	1.4	0.0	0.2	0.0	0.770	3.150	05/53
02/50	03/50	MANHOLE 1050mm DIA											25	1.0	0			0				1.000	58.848	58.58											02/50
14/25	15/25	BASIN NODE FOR CALCULATIONS			1.016							0.455	25	1.0	455			455				1.000	45.300	45.75	45.75	45.75	0.00	1.92	0.0	0.0	0.0	0.0			14/25
07/42	08/42	MANHOLE 1200mm DIA											25	1.0	0			0				1.000	47.123	45.37	45.33	41.84	10.71	0.66	1.6	0.0	0.0	0.0	0.550	6.600	07/42
12/42	13/42	MANHOLE 1200mm DIA											25	1.0	0			0				1.000	43.085	40.96											12/42
01/57	02/49	INLET GULLY ON GRADE (LG) Type S Lintel	0.063			120	133.6	0.877	0.916	0.035			25	9.2	106	2.21	0.02	71	32	0.02	O 01/57	9.205	54.628	53.68	53.57	53.27	8.37	0.07	9.7	0.0	0.1	0.0	0.110	2.300	01/57
02/49	03/49	MANHOLE 1050mm DIA											25	1.0	0			0				1.000	54.389	52.35											02/49

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

C

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

REV	DATE	DESCRIPTION	INT
C	20-12-23	CALC TABLES AMENDED	BL
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING

Robin Russell & ASSOCIATES PTY. LTD.

BENNETT + BENNETT

DRAWING TITLE

STORMWATER
CALCULATION TABLES
MAJOR STORM EVENT

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

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DESIGNED	RB	DRAWN	EMH
APPROVED		RPEQ 4706	DATE 03-03-23

DRAWING NUMBER 41901-01-681

REV C

F:\Autocad Client\419 - HB Land\01 - Courtney Drive\Precinct-Stage 01\Engineering Drawings\Current\41901-01-680.dwg, MAJOR, 24/06/2024 2:36:24 PM, 1:2

SEQ CODE WATER NOTES

SEQ CODE NOTES COPIED DIRECTLY FROM DRAWING SEQ-WAT-1101-3.

VEGETATION PROTECTION

A. TREES LOCATED ALONG THE FOOTPATH SHALL BE, TRANSPLANTED PRIOR TO CONSTRUCTION, OR REPLACED IF DESTROYED.
B. WHEN WORKING WITHIN 4m OF TREES, RUBBER OR HARDWOOD GIRDLES SHALL BE CONSTRUCTED WITH 1.8m BATTENS CLOSELY SPACED & ARRANGED VERTICALLY FROM GROUND LEVEL. GIRDLES SHALL BE STRAPPED TO TREES PRIOR TO CONSTRUCTION & REMAIN UNTIL COMPLETION.
C. TREE ROOTS SHALL BE TUNNELLED UNDER, RATHER THAN SEVERED. IF ROOTS ARE SEVERED THE DAMAGED AREA SHALL BE TREATED WITH A SUITABLE FUNGICIDE. CONTACT RELEVANT COUNCIL ARBORIST FOR FURTHER ADVICE.
D. ANY TREE LOPPING REQUIRED SHOULD BE UNDERTAKEN BY AN APPROVED ARBORIST.

SOIL

A. TOPSOIL & SUBSOIL SHALL BE STOCKPILED SEPARATELY.
B. CARE SHALL BE TAKEN TO PREVENT SEDIMENT FROM ENTERING THE STORMWATER SYSTEM. THIS MAY INVOLVE PLACING APPROPRIATE SEDIMENT CONTROLS AROUND STOCKPILES.
C. IF ACID SULPHATE SOILS EXIST IN THE WORKS AREA. THE CONTRACTOR MUST PREPARE A RISK ASSESSMENT BASED ON THE QUEENSLAND ACID SULPHATE SOIL TECHNICAL MANUAL & MANAGE THE ACID SULPHATE SOILS AS PER THE MANUAL.

CREEK CROSSINGS

A. SILTATION CONTROL MEASURES SHALL BE PLACED DOWNSTREAM OF ANY EXCAVATION WORK.
B. APPROPRIATE SEDIMENT CONTROLS SHALL BE USED TO PREVENT SEDIMENT FROM ENTERING THE CREEK.
C. NO SOIL SHALL BE STOCKPILED WITHIN 5m OF THE CREEK.

REHABILITATION

A. PREDISTURBANCE SOIL PROFILES & COMPACTION LEVELS SHALL BE REINSTATED.
B. PREDISTURBANCE VEGETATION PATTERNS SHALL BE RESTORED.

GENERAL NOTES

1. ALL WORK & MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT SOUTH EAST QUEENSLAND WATER SUPPLY CODE SPECIFICATIONS & STANDARDS.
2. UNLESS SPECIFIED OTHERWISE ALL MATERIALS & WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
3. ADOPT LIP OF KERB OR SHOULDER OF ROAD AS PERMANENT LEVEL.
4. COVER ON MAINS FROM PERMANENT LEVEL TO BE AS SHOWN IN SEQ-WAT-1200-2.
5. CONDUITS TO BE INSTALLED IN ACCORDANCE WITH THE STANDARD DRAWINGS.
6. A WATER METER SUPPLIED AT THE DEVELOPER'S COST, IS TO BE INSTALLED AT THE SERVICE POINT OF EACH LOT IN ACCORDANCE WITH THE STANDARD DRAWING FOR THE SEQ-SP.
7. ALL MATERIALS USED IN THE WORKS SHALL COMPLY WITH THE SEQ-SP's ACCEPTED PRODUCTS & MATERIALS LIST OR BE APPROPRIATELY SHOWN, LISTED & DEFINED IN THE ENGINEERING SUBMISSION SO THAT THE ALTERNATIVE PRODUCT OR MATERIAL CAN BE ASSESSED & IF APPROPRIATE, APPROVED BY THE SEQ-SP.
8. ALL CONCRETE FOOTPATHS TO BE CLEAR OF WATER MAINS.
9. TEST/CHLORINATION POINTS TO BE INSTALLED IN ACCORDANCE WITH STANDARD DRAWING NO.SEQ-WAT-1410-1.
10. THE CONSTRUCTION OF THE WATER RETICULATION WORK SHOWN ON THIS DRAWING MUST BE SUPERVISED BY AN ENGINEER WHO HAS RPEQ REGISTRATION. WORKS NOT COMPLYING WITH THIS REQUIREMENT WILL NOT BE PERMITTED TO CONNECT TO THE RETICULATION SYSTEM.

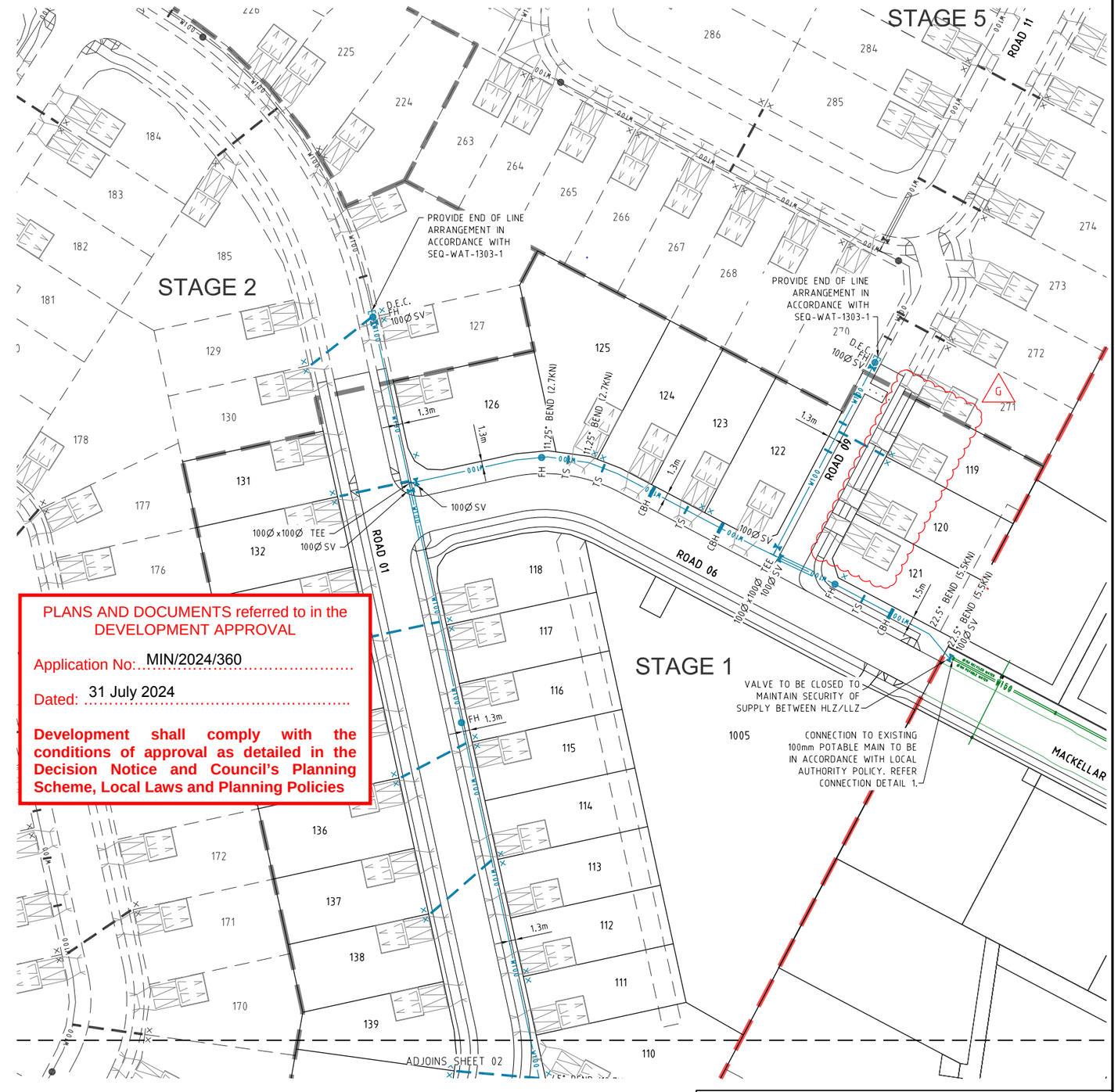
ALL ENVIRONMENT PROTECTION MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY CONSTRUCTION WORK, INCLUDING CLEARING, COMMENCING.

PROJECT SPECIFIC WATER NOTES

a. ALL PROPERTY CONNECTION ROAD CROSSINGS TO BE SLEEVED WITH DN100 uPVC PN12 CONDUIT IN ACCORDANCE WITH SEQ-WAT-1106-1.
b. ALL MATERIALS ARE TO BE SUPPLIED & CONSTRUCTED IN ACCORDANCE WITH SEQ CODE.
c. WATER METERS ARE TO BE SUPPLIED & INSTALLED AT ALL WATER SERVICE / CONNECTION POINTS IN ACCORDANCE WITH SEQ-WAT-1106-1.
d. THRUST BLOCKS TO BE LOCATED & INSTALLED BY CONTRACTOR IN ACCORDANCE WITH SEQ CODE.
e. TRENCH STOPS & BULKHEADS TO BE IN ACCORDANCE WITH WATER AUTHORITY REQUIREMENTS.
f. THE CONTRACTOR IS TO INCLUDE ROCK EXCAVATION AS PART OF THEIR WATER RATES UNLESS SCHEDULED OTHERWISE WITHIN THE CONTRACT.
g. FOOTPATHS SHOWN FOR INFORMATION PURPOSES ONLY.
h. ALL WATER CONSTRUCTION WORK UNDERTAKEN BY THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE WORKPLACE HEALTH & SAFETY LEGISLATION.
i. MINIMUM WATERMAIN COVER TO BE IN ACCORDANCE WITH SECTION 7.4.2 TABLE 7.2 OF THE SEQ AMENDMENT TO WATER SUPPLY CODE OF AUSTRALIA.
j. CONTRACTOR TO PAY ALL FEES & CHARGES ASSOCIATED WITH CONNECTIONS.
k. END OF LINE ARRANGEMENTS (EG. CUL-DE-SAC HEADS) TO BE CONSTRUCTED IN ACCORDANCE WITH SEQ-WAT-1104-1.
l. TEMPORARY CONSTRUCTION HYDRANTS TO BE PROVIDED IN ACCORDANCE WITH SEQ-WAT-1303-1 AT ALL CONNECTIONS.
m. ALL LIVE CONNECTIONS ARE TO BE ORGANISED BY THE CIVIL CONTRACTOR & UNDERTAKEN BY COUNCIL AT THE DEVELOPERS EXPENSE.

LEGEND

- EXISTING 100Ø WATER MAIN (W100)
- EXISTING 150Ø WATER MAIN (W150)
- EXISTING 200Ø WATER MAIN (W200)
- EXISTING 225Ø WATER MAIN (W225)
- EXISTING 250Ø WATER MAIN (W250)
- EXISTING 300Ø WATER MAIN (W300)
- EXISTING FOOTPATH
- EXISTING KERB (INVERT)
- EXISTING PROPERTY LINE
- FUTURE 100Ø WATER MAIN (W100)
- FUTURE 150Ø WATER MAIN (W150)
- FUTURE 200Ø WATER MAIN (W200)
- FUTURE KERB (INVERT)
- FUTURE PROPERTY LINE
- FUTURE FOOTPATH
- PROPOSED KERB (INVERT)
- PROPOSED PROPERTY LINE
- PROPOSED FOOTPATH
- SITE BOUNDARY
- STAGE BOUNDARY
- PROPOSED 100Ø WATER MAIN (W100)
- PROPOSED 150Ø WATER MAIN (W150)
- PROPOSED 200Ø WATER MAIN (W200)
- HYDRANT (FH)
- TEE
- REDUCER
- SCOUR VALVE
- ENDCAP
- SLUICE VALVE
- AIR VALVE
- METER LOCATION
- TRENCH STOP (TS)
- CONCRETE BULKHEAD (CBH)
- SERVICE CONDUIT
- DICL ROAD CROSSING



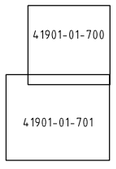
PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

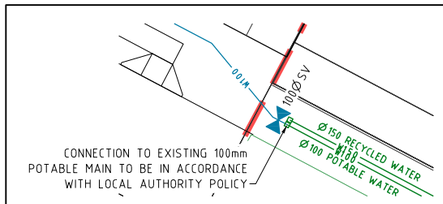
SHEET LAYOUT



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WATER PIPE SPECIFICATIONS

WATER MAIN LOCATION	PIPE MATERIAL SPECIFICATION
FOOTPATH VERGE	PVC-M SERIES 2 PN16
ROAD CROSSING	DICL PN35



CONNECTION DETAIL 1

SCALE 1:200 - A1 (1:400 - A3)

0 2 4 6 8 10m

Scale 1:200 - A1 (1:400 - A3)

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

0 5 10 15 20 25m

Scale 1:500 - A1 (1:1000 - A3)

REV	DATE	DESCRIPTION	INT
G	19-06-24	DRIVEWAYS ADDED	BL
F	17-06-24	FOOTPATH WIDTH AMENDED	EP
E	31-05-24	FOOTPATH ROAD 06 CHANGED	EP
D	16-10-23	WM LOT 126 MOVED	EP
C	20-09-23	FH & TS MOVED	EP
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT+BENNETT

DRAWING TITLE

WATER RETICULATION PLAN SHEET 01

MORTONS urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER 41901-01-700

REV G

F:\Autocad Client\419 - HB Land\01 - Courtney Drive\Precinct-Stage 01\Engineering Drawings\Current\41901-01-700.dwg, PLAN SHEET 01, 24/06/2024 2:38:28 PM, 1:2

PROJECT NAME

COURTNEY DR UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

NORTH

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

REV	DATE	DESCRIPTION	INT
D	19-06-24	LAYOUT & ALIGNMENT CHANGE	BL
C	14-03-24	INSERT ADDED	MLJ
B	14-07-23	RFI AMENDMENTS	EP
A	03-03-23	COUNCIL ISSUE	JB

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ASSOCIATED CONSULTANTS

BIOME WATER AND ENVIRONMENTAL CONSULTING
Robin Russell & ASSOCIATES PTY. LTD.
BENNETT+BENNETT

DRAWING TITLE

WATER RETICULATION PLAN SHEET 02

MORTONS urbansolutions
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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER 41901-01-701 | REV D

ADJOINS SHEET 01

STAGE 2

STAGE 3

ROAD 01

ROAD 03

ROAD 04

PATTERSON CT

GORDON DR

RANGEVIEW ROAD

PROVIDE END OF LINE ARRANGEMENT IN ACCORDANCE WITH SEQ-WAT-1303-1

45° BEND (10.7KN)

11.25° BEND (2.7KN)

22.5° BEND (5.5KN)

45° BEND (38.8KN)

200Ø x 150Ø REDUCER

200Ø - 150Ø REDUCER

200Ø x 200Ø TEE

100Ø x 100Ø TEE

150Ø - 100Ø REDUCER

11.25° BENDS (2.7KN)

11.25° BEND (2.7KN)
11.25° BEND (9.9KN)
45° BEND (38.8KN)

45° BEND (12.6KN)
22.5° BEND (11.5KN)
11.25° BEND (5.8KN)

90° BEND (71.7KN)

VALVE TO BE CLOSED TO MAINTAIN SECURITY OF SUPPLY BETWEEN HLZ/LLZ

REMOVE EXISTING DEAD END CAP & MAKE LIVE CONNECTION. REFER CONNECTION DETAIL 2.

REMOVE EXISTING DEAD END CAP & MAKE LIVE CONNECTION. REFER CONNECTION DETAIL 3.

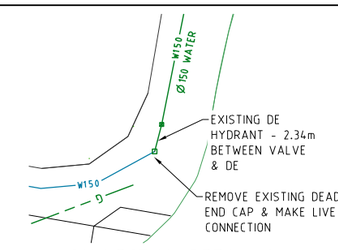
APPROXIMATE LOCATION OF STREET LIGHT CONDUIT.

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

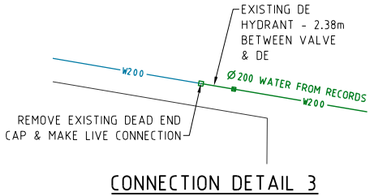
Application No: MIN/2024/360

Dated: 31 July 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



CONNECTION DETAIL 2
SCALE 1:200 - A1 (1:400 - A3)



CONNECTION DETAIL 3
SCALE 1:200 - A1 (1:400 - A3)

0 2 4 6 8 10m
Scale 1:200 - A1 (1:400 - A3)

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THRUST BLOCK LENGTH

PIPE DN.	FITTING	MAX. THRUST IN KN	THRUST BLOCK HEIGHT	STIFF CLAY 50 KPa.	VERY STIFF CLAY SANDY LOAM 100KPa.	SAND & GRAVEL HARDCLAY 150KPa.	SAND & GRAVEL CEMENTED WITH CLAY 200KPa.	ROCK 240kPa
100	90° BEND	19.8	400	1000	●	●	●	●
	60° BEND	14.0		700	●	●	●	●
	45° BEND	10.7		●	●	●	●	●
	22.5° BEND	5.5		●	●	●	●	●
	11.25° BEND	2.7		●	●	●	●	●
	TEE OR CLOSED END	14.0		700	●	●	●	●
150	90° BEND	41.7	450	1860	930	●	●	●
	60° BEND	29.5		1320	660	●	●	●
	45° BEND	22.6		1000	●	●	●	●
	22.5° BEND	11.5		●	●	●	●	●
	11.25° BEND	5.8		●	●	●	●	●
	TEE OR CLOSED END	29.5		1300	660	●	●	●
200	90° BEND	71.7	550	*	1300	870	650	●
	60° BEND	50.7		1850	920	●	●	●
	45° BEND	38.8		1410	700	●	●	●
	22.5° BEND	19.8		720	●	●	●	●
	11.25° BEND	9.9		●	●	●	●	●
	TEE OR CLOSED END	50.7		1850	920	●	●	●
225	90° BEND	89.4	600	*	1500	1000	750	●
	60° BEND	63.2		2110	1060	700	●	●
	45° BEND	48.4		1620	810	●	●	●
	22.5° BEND	24.6		830	●	●	●	●
	11.25° BEND	12.4		●	●	●	●	●
	TEE OR CLOSED END	63.2		210	1060	700	●	●
250	90° BEND	109.0	650	*	1700	1120	840	700
	60° BEND	77.1		2400	1200	800	●	●
	45° BEND	59.0		1820	910	●	●	●
	22.5° BEND	30.1		930	●	●	●	●
	11.25° BEND	15.1		●	●	●	●	●
	TEE OR CLOSED END	77.1		2400	1200	800	●	●
300	90° BEND	158.6	700	*	2270	1510	1140	950
	60° BEND	112.2		*	1600	1070	800	670
	45° BEND	85.9		2453	1230	820	●	●
	22.5° BEND	43.8		1250	630	●	●	●
	11.25° BEND	22.0		630	●	●	●	●
	TEE OR CLOSED END	112.2		*	1600	1070	800	750

THRUST BLOCK LENGTH

PIPE DN.	FITTING	MAX. THRUST IN KN	THRUST BLOCK HEIGHT	STIFF CLAY 50 KPa.	VERY STIFF CLAY SANDY LOAM 100KPa.	SAND & GRAVEL HARDCLAY 150KPa.	SAND & GRAVEL CEMENTED WITH CLAY 200KPa.	ROCK 240kPa
375	90° BEND	241.9	800	*	*	2220	1510	1260
	60° BEND	171.0		*	2140	1430	1070	890
	45° BEND	130.9		*	1640	1090	820	680
	22.5° BEND	66.7		1670	840	●	●	●
	11.25° BEND	33.5		840	●	●	●	●
	TEE OR CLOSED END	171.0		*	2140	1430	1070	890
450	90° BEND	342.6	900	*	*	2540	1900	1590
	60° BEND	242.3		*	2690	1800	1350	1120
	45° BEND	185.4		*	2060	1375	1030	860
	22.5° BEND	94.5		2100	1050	700	●	●
	11.25° BEND	47.5		1060	●	●	●	●
	TEE OR CLOSED END	242.3		*	2690	1800	1350	1120
500	90° BEND	418	1000	*	*	2790	2090	1740
	60° BEND	295.6		*	*	1970	1480	1230
	45° BEND	226.2		*	2260	1510	1130	940
	22.5° BEND	115.3		2310	1150	770	●	●
	11.25° BEND	58.0		1160	●	●	●	●
	TEE OR CLOSED END	295.5		*	*	1970	1480	1230
600	90° BEND	593	1100	*	*	*	2700	2250
	60° BEND	419		*	*	2540	1910	1590
	45° BEND	320		*	2920	1950	1460	1220
	22.5° BEND	164		2980	1490	990	750	620
	11.25° BEND	82.2		1500	750	●	●	●
	TEE OR CLOSED END	419		*	*	2540	1910	1590
750	90° BEND	909	1300	*	*	*	*	2920
	60° BEND	643		*	*	*	2480	2060
	45° BEND	492		*	*	2530	1890	1580
	22.5° BEND	251		*	1930	1290	970	810
	11.25° BEND	126.1		1940	970	650	●	●
	TEE OR CLOSED END	643		*	*	*	2480	2060
900 (Ø960 MSCL)	90° BEND	1.228	1500	*	*	*	*	3420
	60° BEND	868		*	*	*	2900	2420
	45° BEND	664		*	*	2960	2220	1850
	22.5° BEND	339		*	2260	1510	1130	940
	11.25° BEND	170		2270	1140	760	●	●
	TEE OR CLOSED END	868		*	*	*	3300	2650

THRUST BLOCK DIMENSIONS - 1200kPa

● INDICATES BLOCK LENGTH OF 600

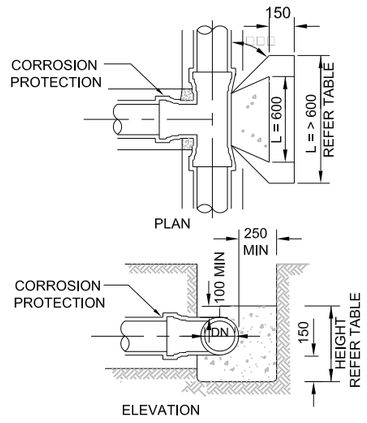
* = SPECIAL DESIGN

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

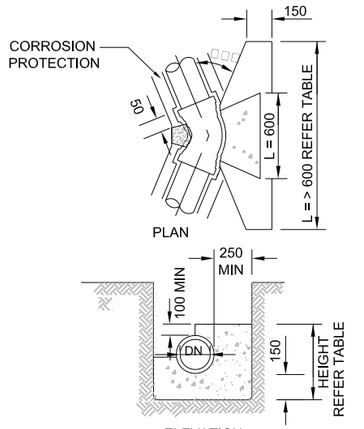
Application No: MIN/2024/360

Dated: 31 July 2024

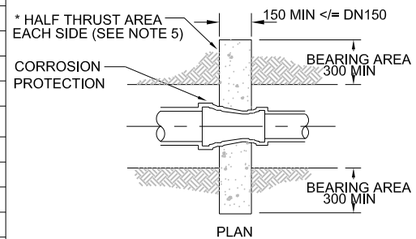
Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



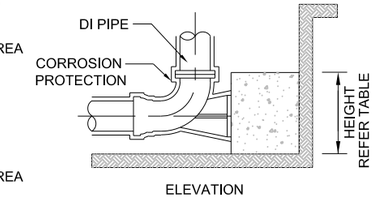
THRUST BLOCK FOR TEES
(FOR HORIZONTAL THRUST)



THRUST BLOCK FOR BENDS
(FOR HORIZONTAL THRUST)



TAPER THRUST BLOCK
(FOR HORIZONTAL THRUST)



FLUSHING/WASHOUT BEND THRUST BLOCK
(FOR HORIZONTAL THRUST) (MINIMUM REQUIRED THRUST AREA AS PER TEE OR CLOSED END)

NOTES

1. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. CAST THE THRUST AREA OF ALL THRUST BLOCKS AGAINST A CLEAN FACE OF UNDISTURBED NATURAL SOIL. SOIL CLASSIFICATIONS USED ON THIS DRAWING ARE EXPLAINED IN SEQ-WAT-12110-1. DO NOT USE STANDARD THRUST BLOCKS AS SPECIFIED IN THIS DRAWING IN SOILS WITH < 5OkPa BEARING CAPACITY EG;
   –VERY SOFT, SOFT OR FIRM CLAY.
   –LOOSE CLEAN SAND.
   –UNCOMPACTED FILL OR REFUSE.
   A GEOTECHNICAL ASSESSMENT AND INDIVIDUAL DESIGN IS REQUIRED FOR THESE SOILS.
3. THRUST BLOCKS NOT TO INTERFERE WITH OTHER SERVICES OR BE LOCATED OUTSIDE THE WATER MAIN ALLOCATION WITHOUT WATER AGENCY APPROVAL.
4. ALL CONCRETE GRADE N20. TABLE OF DIMENSIONS BASED ON REQUIRED TEST PRESSURE OF 1200kPa AND ACTUAL DICL PIPE DIAMETERS.
5. THE MINIMUM THRUST AREA FOR TAPER THRUST BLOCKS TO BE EQUAL TO THE DIFFERENCE BETWEEN THE THRUST AREAS FOR TEES OR CLOSED ENDS OF EQUIVALENT DIAMETER TO THOSE EACH SIDE OF TAPER. THE DETAIL SHOWN IS FOR < OR = DN150 MAINS. FOR LARGER MAINS, THE TAPER THRUST BLOCK SHALL BE REINFORCED AND OF A SIZE AS SHOWN IN SEQ-WAT-1206-1.
6. FOR DOWNWARD VERTICAL THRUST, THE ALLOWABLE BEARING PRESSURE FOR VARIOUS SOILS MAY BE TAKEN AS TWICE THAT FOR HORIZONTAL THRUST SHOWN.
7. WHEN POURING CONCRETE AGAINST FITTINGS PLACE A MEMBRANE OF POLYETHYLENE, PVC OR FELT BETWEEN THE FITTING AND CONCRETE TO PREVENT DAMAGE TO THE FITTING. PIPE
8. JOINTS TO BE CLEAR OF CONCRETE.
   CONCRETE THRUST BLOCK ANCHORS FOR VALVES TO BE AS DETAILED ON SEQ-WAT-1206-1.

PROJECT NAME

COURTNEY DR
UPPER COOMERA

STAGE 01

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

HB Land

REV	DATE	DESCRIPTION	INT
A	03-03-23	COUNCIL ISSUE	JB

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BENNETT+BENNETT

DRAWING TITLE

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DESIGNED	RB	DRAWN	EMH
APPROVED	RPEQ 4706	DATE	03-03-23

DRAWING NUMBER 41901-01-710

REV A

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