

COURTNEY DRIVE

OPERATIONAL WORKS

STAGE 04

No. 41901-04

PLANS AND DOCUMENTS referred to in the
DEVELOPMENT APPROVAL

Application No: OPW/2024/523

Dated: 11 September 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



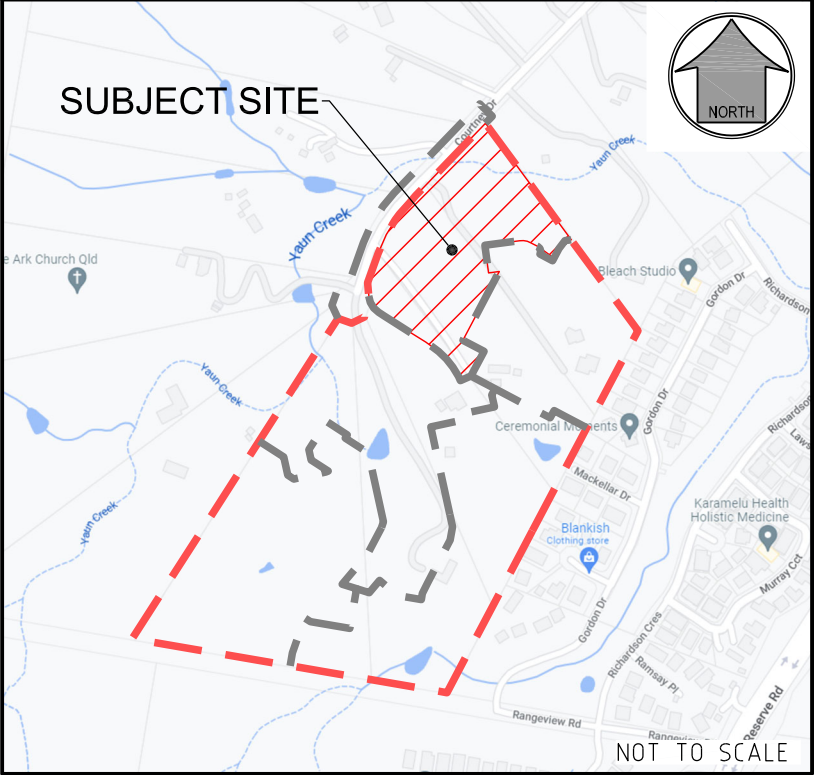
CLIENT



SUB-CONSULTANTS



LOCALITY PLAN



NOT TO SCALE

R. P. DESCRIPTION

LOT 188, 189 ON RP173728

COURTNEY DRIVE

LOCALITY OF UPPER COOMERA

LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

SCHEDULE OF DRAWINGS

NUMBER	REV. NO.	TITLE	NUMBER	REV. NO.	TITLE
GENERAL			SEWER: PROFILES		
41901-04-000	C	COVERT SHEET	41901-04-530	B	PROFILES SHEET 01
41901-04-003	A	SAFETY IN DESIGN	41901-04-531	B	PROFILES SHEET 02
41901-04-004	A	RISK MATRIX & NOTES	SEWER: HOUSE CONNECTION PROFILES		
41901-04-005	A	ROAD HIERARCHY & STAGING PLAN	41901-04-550	A	PROFILES SHEET 01
EARTHWORKS: RETAINING WALL & DETAIL GRADING			DRAINAGE: STORMWATER		
41901-04-060	B	PLAN SHEET 01	41901-04-600	A	PLAN SHEET 01
41901-04-061	B	PLAN SHEET 02	41901-04-601	A	PLAN SHEET 02
41901-04-062	B	PLAN SHEET 03	DRAINAGE: PROFILES		
41901-04-070	B	DETAILS SHEET 01	41901-04-620	A	PROFILES SHEET 01
EARTHWORKS: PADMOUNT SECTIONS			41901-04-621	A	PROFILES SHEET 02
41901-04-075	B	SHEET 01	41901-04-622	A	PROFILES SHEET 03
EARTHWORKS: FINAL SURFACE & SEDIMENT AND EROSION CONTROL			DRAINAGE: PIT DETAILS & TYPICAL DETAILS		
41901-04-080	A	PLAN SHEET 01	41901-04-640	A	OUTLETS & TYPICAL DETAILS SHEET 01
41901-04-081	A	PLAN SHEET 02	41901-04-650	A	PIT DETAILS SHEET 01
EARTHWORKS: COMBINED SERVICES			41901-04-651	A	PIT DETAILS SHEET 02
41901-04-090	A	PLAN SHEET 01	DRAINAGE: BASINS & CULVERTS		
ROADS: ROADWORKS			41901-04-660	A	BASIN PLAN SHEET 01
41901-04-100	A	PLAN SHEET 01	41901-04-661	A	FOREBAY DETAILS SHEET 01
41901-04-120	A	DETAILS SHEET 01	41901-04-662	A	SECTIONS SHEET 01
ROADS: LONGITUDINAL SECTIONS			41901-04-663	A	SECTIONS SHEET 02
41901-04-200	A	SHEET 01	41901-04-665	A	DETAILS SHEET 01
41901-04-201	A	SHEET 02	DRAINAGE: CATCHMENT		
ROADS: CROSS SECTIONS			41901-04-670	A	PLAN SHEET 01
41901-04-300	A	SHEET 01	DRAINAGE: CALCULATION TABLES		
41901-04-301	A	SHEET 02	41901-04-680	A	MINOR SHEET 01
41901-04-302	A	SHEET 03	41901-04-681	A	MAJOR SHEET 02
ROADS: INTERSECTION GRADING			WATER: WATER RETICULATION		
41901-04-400	A	DETAILS SHEET 01	41901-04-700	B	PLAN SHEET 01
ROADS: JOINTING DETAILS			41901-04-710	A	WATER RETICULATION DETAILS
41901-04-410	A	DETAILS SHEET 01			
ROADS: LINEMARKING AND SIGNAGE					
41901-04-420	B	PLAN SHEET 01			
SEWER: SEWER RETICULATION					
41901-04-500	B	PLAN SHEET 01			
41901-04-501	A	PLAN SHEET 02			
41901-04-510	B	DETAILS SHEET 01			

DRAWING NUMBER
41901-04-000

AMEND.
C

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

REFER 120 DRAWINGS SERIES FOR TYPICAL SECTIONS

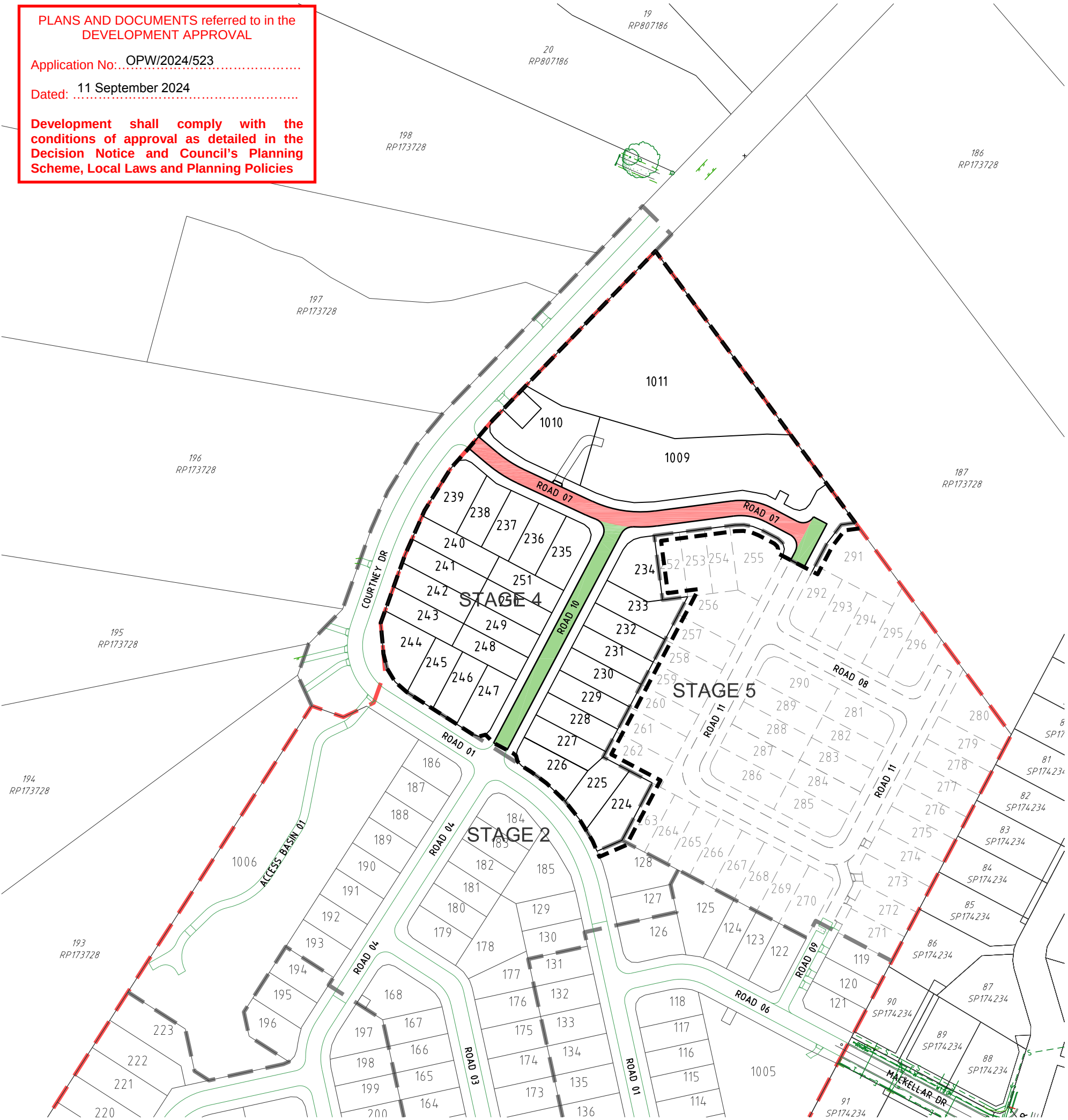


PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No.: OPW/2024/523

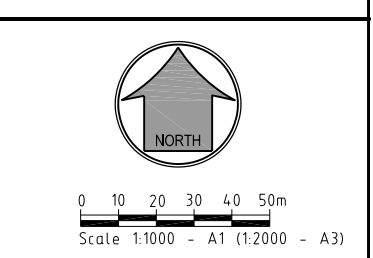
Dated: 11 September 2024

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 04
RP DESCRIPTION
LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL



A	27-04-24	COUNCIL ISSUE	BL
REV	DATE	DESCRIPTION	IN

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ASSOCIATED CONSULTANTS

WATER AND ENVIRONMENTAL CONSULTING

ROBIN RUSSELL & ASSOCIATES PTY. LTD.

DRAWING TITLE
**ROAD HIERARCHY,
STAGING PLAN
AND
GENERAL NOTES**

MORTONS
urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

MUS Pty Ltd T/As:
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Southport QLD 4215

DESIGNED RB	DRAWN BL
APPROVED	DATE 27-04-24
DRAWING NUMBER 41901-04-005	REV A

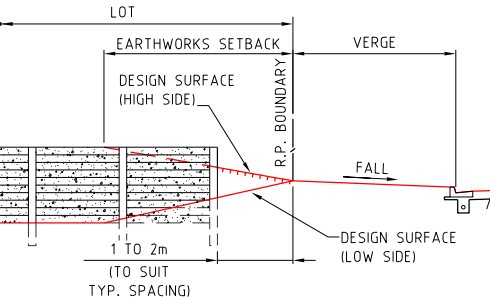
GENERAL

1. CONTRACT SPECIFICATIONS
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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

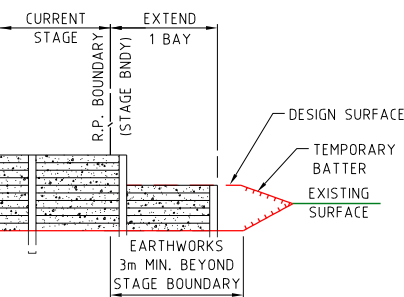
- EXISTING KERB (INVERT)
- EXISTING PROPERTY LINE
- EXISTING CONTOURS
- EXISTING RETAINING WALL
- EXISTING BOULDER WALL
- FUTURE KERB (INVERT)
- FUTURE PROPERTY LINE
- FUTURE CONTOURS
- FUTURE RETAINING WALL
- FUTURE BOULDER WALL
- PROPOSED KERB (INVERT)
- PROPOSED PROPERTY LINE
- DESIGN CONTOURS
- PROPOSED SINGLE TIER RETAINING WALL
- PROPOSED TWO TIER RETAINING WALL
- PROPOSED BOULDER 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 DRG. 072)



TYPICAL SIDE BOUNDARY CONSTRUCTION

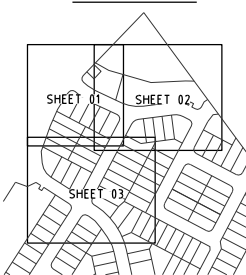
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TYPICAL STAGE BOUNDARY CONSTRUCTION

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

SHEET LAYOUT

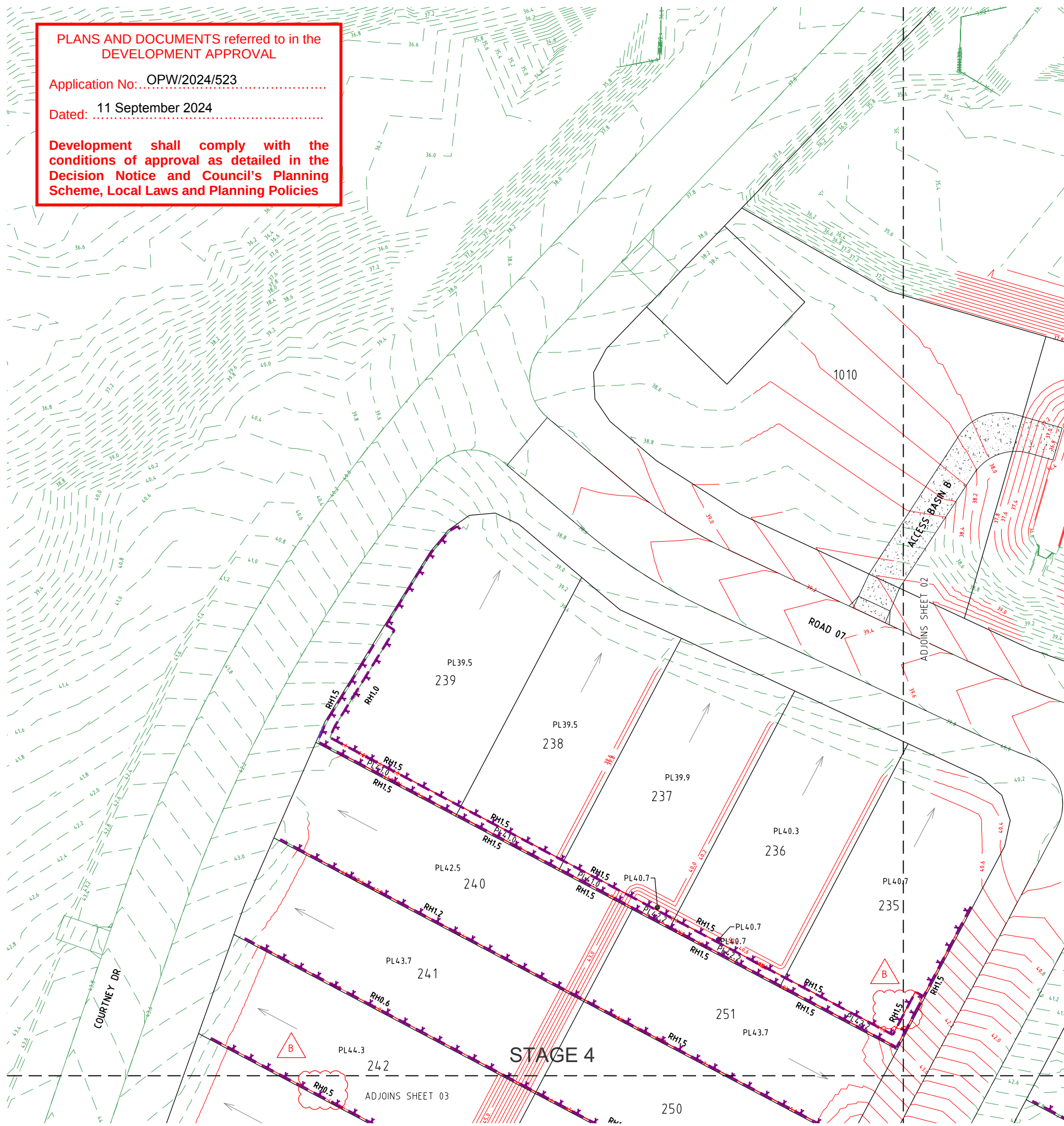


PLANS AND DOCUMENTS referred to in the
DEVELOPMENT APPROVAL

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PROJECT NAME

COURTNEY DR
UPPER COOMERA

STAGE 04

RP DESCRIPTION

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

CLIENT



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

B	07-08-24	RETAINING HEIGHTS ADDED	BL
A	27-04-24	COUNCIL ISSUE	BL
REV	DATE	DESCRIPTION	INT

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ASSOCIATED CONSULTANTS



DRAWING TITLE

RETAINING WALL
AND DETAIL GRADING PLAN
SHEET 01

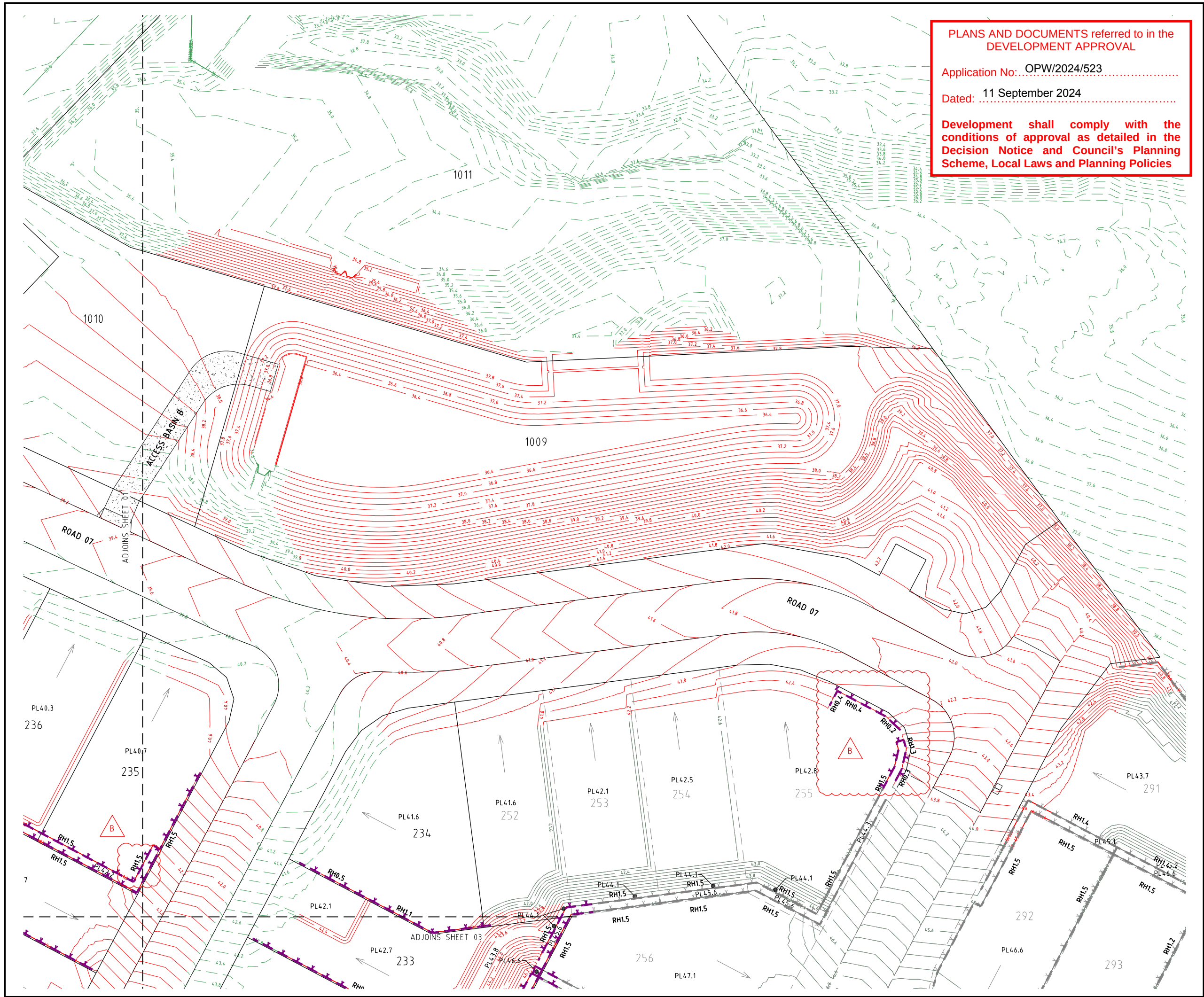
MORTONS
urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

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DESIGNED RB	DRAWN BL
APPROVED <i>AK</i>	REPEQ4706 DATE 27-04-24
DRAWING NUMBER 41901-04-060	REV B



PROJECT NAME

COURTNEY DR
UPPER COOMERA

STAGE 04

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

CLIENT

NORTH

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

B	07-08-24	RETAINING HEIGHTS ADDED	BL
A	27-04-24	COUNCIL ISSUE	BL
REV	DATE	DESCRIPTION	INT

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ASSOCIATED CONSULTANTS

BIOME
WATER AND ENVIRONMENTAL CONSULTING

Robin Russell
& ASSOCIATES PTY. LTD.

DRAWING TITLE

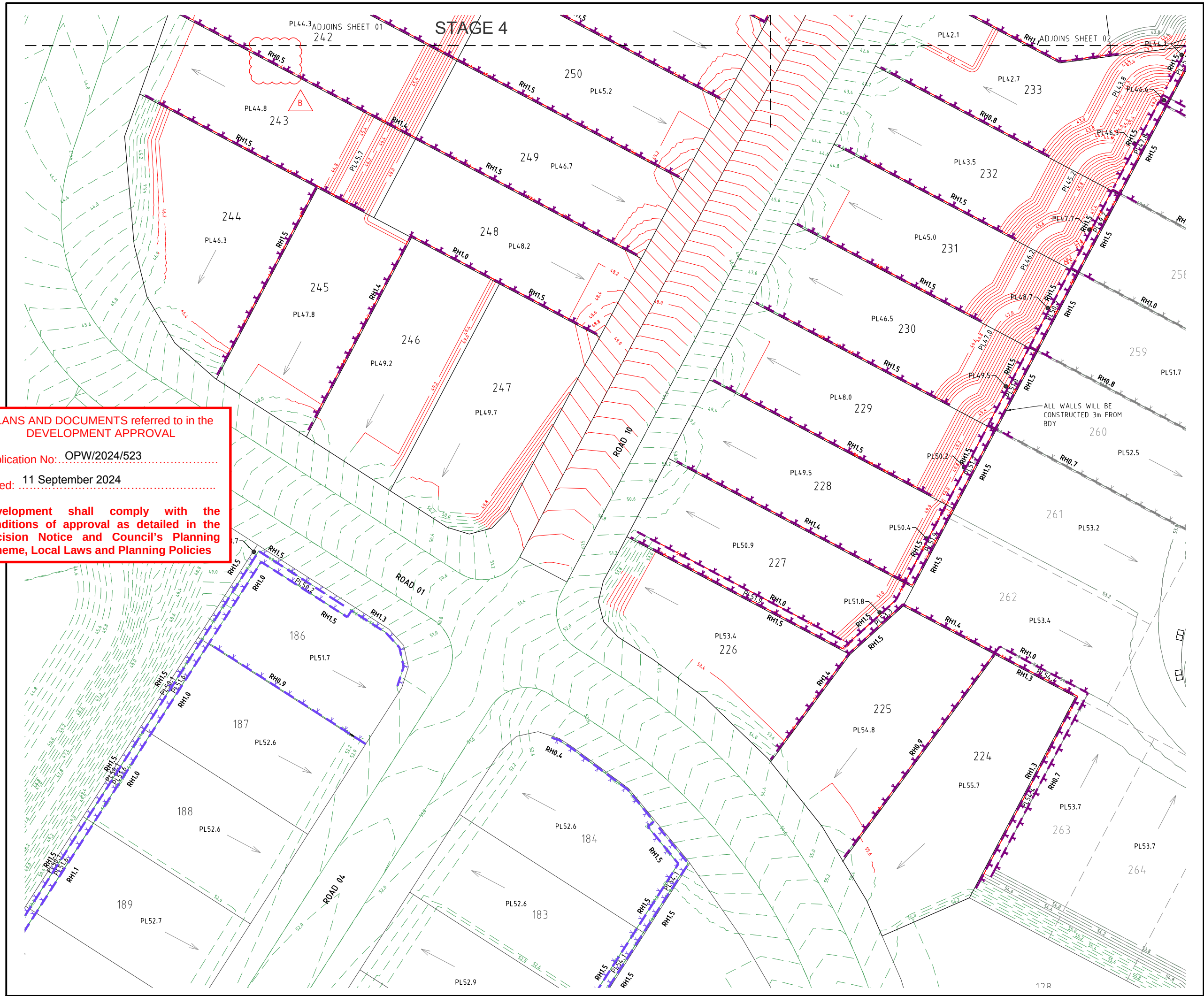
RETAINING WALL
AND DETAIL GRADING PLAN
SHEET 02

MORTONS
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Urban & Regional Planning
Civil Engineering
Project Coordination

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DESIGNED RB	DRAWN BL
APPROVED	DATE 27-04-24
DRAWING NUMBER 41901-04-061	REV B



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW/2024/523

Dated: 11 September 2024

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COURTNEY DR
UPPER COOMERA

STAGE 04

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

CLIENT

NORTH

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

B	07-08-24	RETAINING HEIGHTS ADDED	BL
A	27-04-24	COUNCIL ISSUE	BL
REV	DATE	DESCRIPTION	INT

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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 02

MORTONS
urban solutions
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 BL
APPROVED	DATE 27-04-24
DRAWING NUMBER 41901-04-062	REV B

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. SETBACKS- REFER TABLE
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 INSTALLATION POSTS. NO BRACKETS 5m FROM FRONT BOUNDARY.
15. ALL FOOTINGS MUST BE A MINIMUM OF 200mm FROM PROPERTY BOUNDARY.

RETAINING WALL COLOUR AND FACE FINISH NOTE:

1. RETAINING WALL COLOUR AND FINISH IS TO BE CHARCOAL COLOUR WITH SPLIT FACE, STONE PATTERN FINISH

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

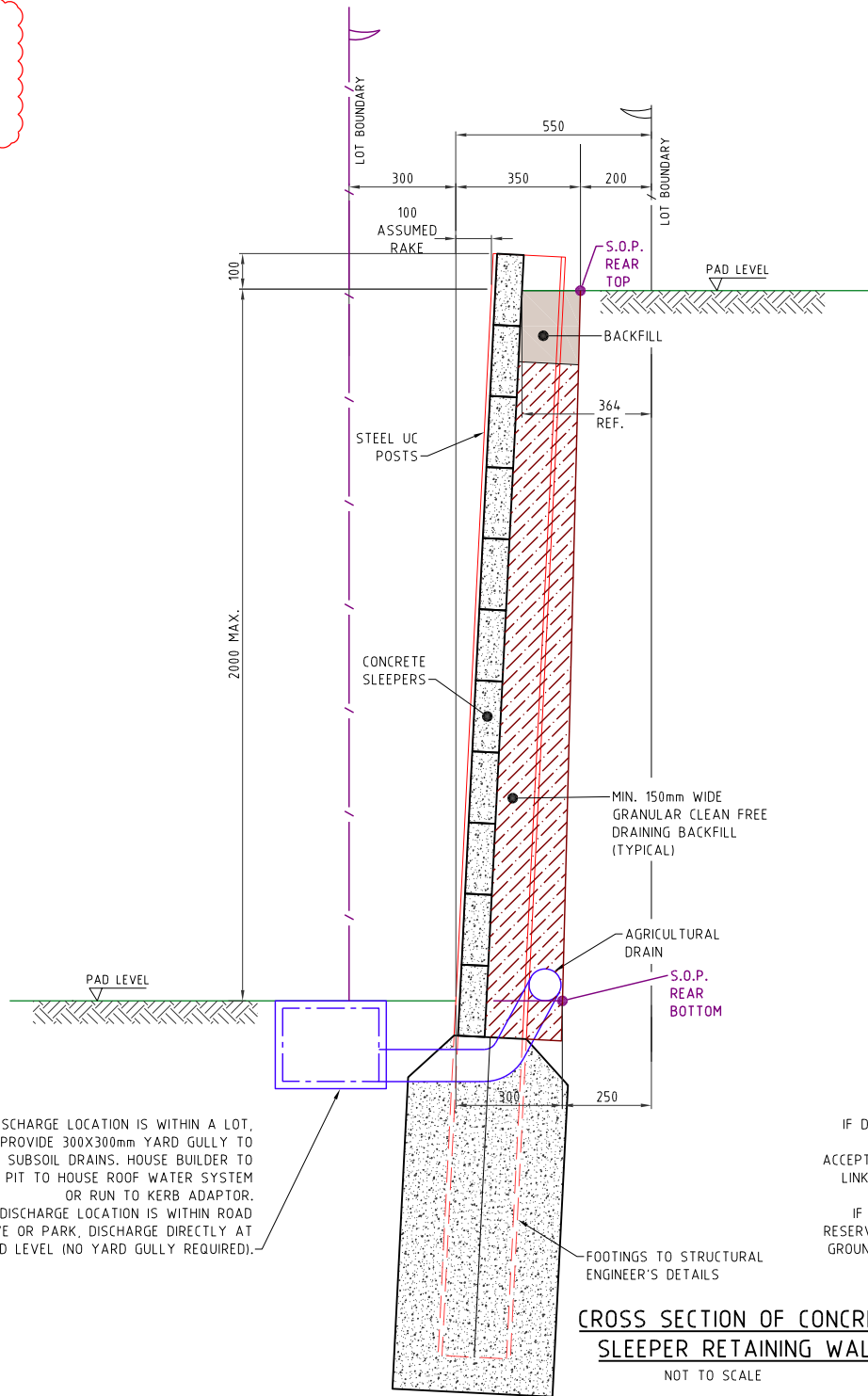
Application No.: OPW/2024/523

Dated: 11 September 2024

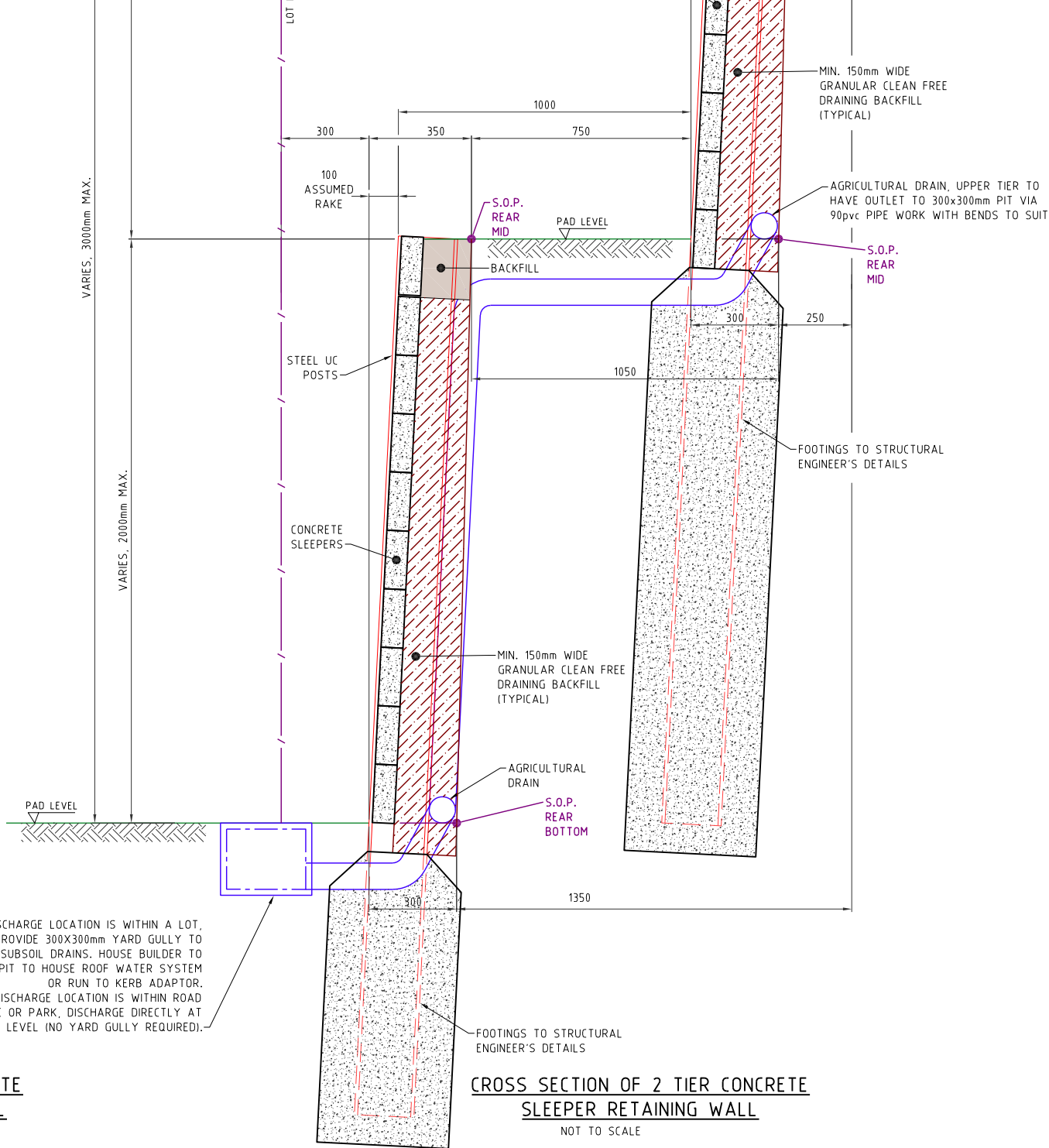
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B



NOT TO SCALE



NOT TO SCALE

PROJECT NAME

COURTNEY DR
UPPER COOMERA

STAGE 04

RP DESCRIPTION

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

CLIENT



B	07-08-24	NOTE REMOVED	BL
A	27-04-24	COUNCIL ISSUE	BL
REV	DATE	DESCRIPTION	INT

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ASSOCIATED CONSULTANTS



DRAWING TITLE

RETAINING WALL
DETAILS
SHEET 01



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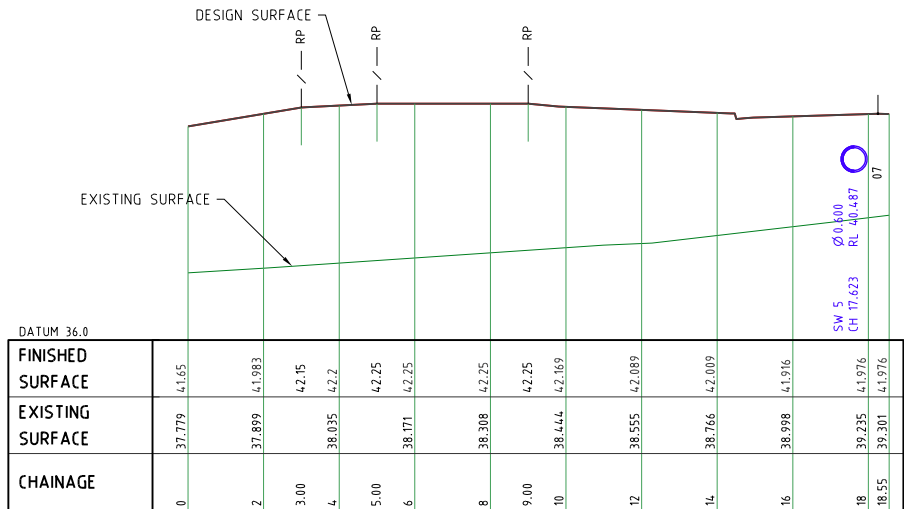
DESIGNED RB DRAWN BL

APPROVED A.K.M. RPEQ 4706 DATE 27-04-24

DRAWING NUMBER REV

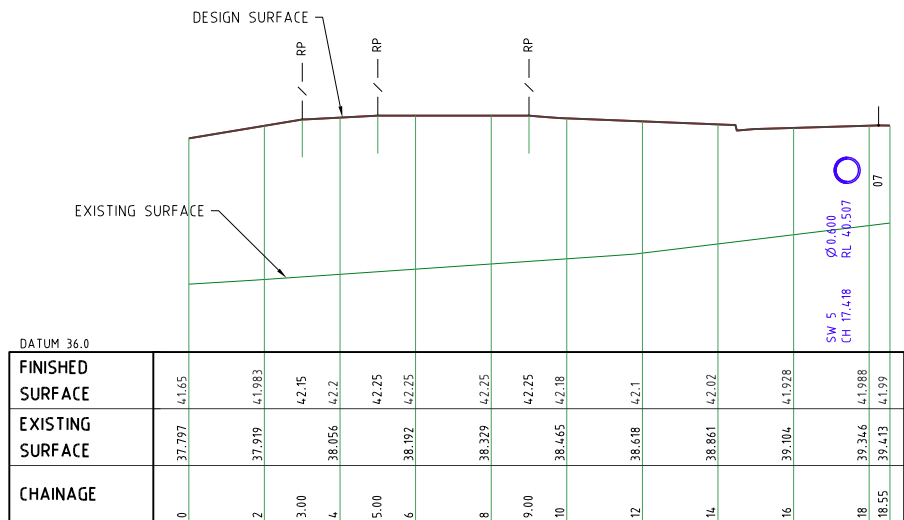
41901-04-070

B



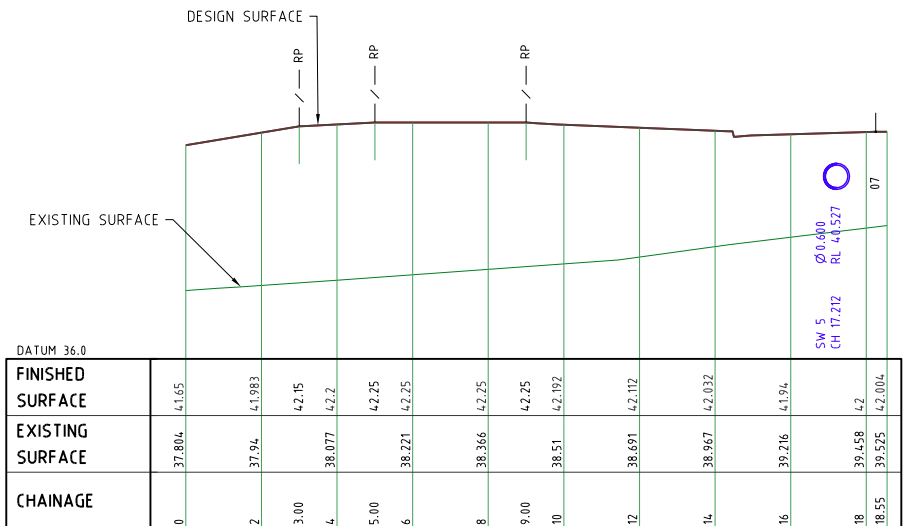
LONGITUDINAL SECTION 5A

Horizontal scale 1:100 Vertical scale 1:100



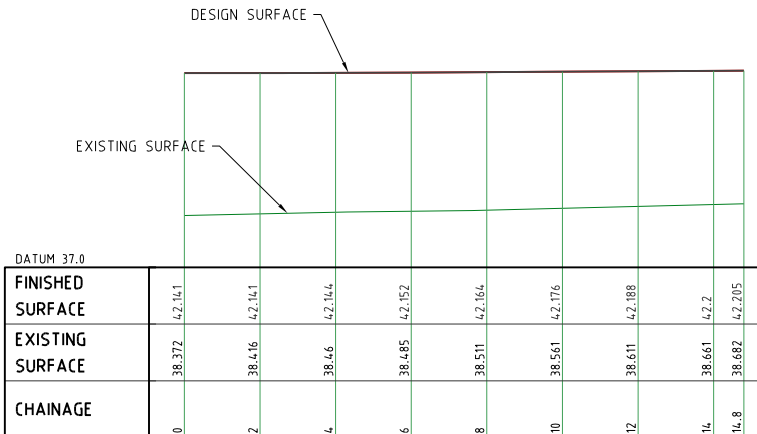
LONGITUDINAL SECTION 5B

Horizontal scale 1:100 Vertical scale 1:100



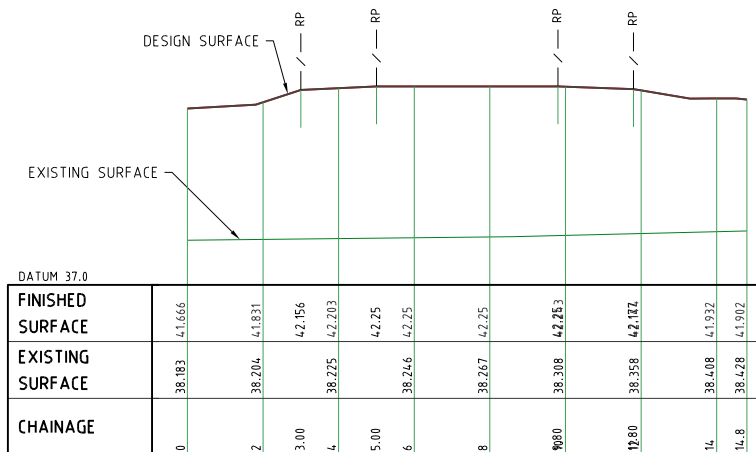
LONGITUDINAL SECTION 5C

Horizontal scale 1:100 Vertical scale 1:100



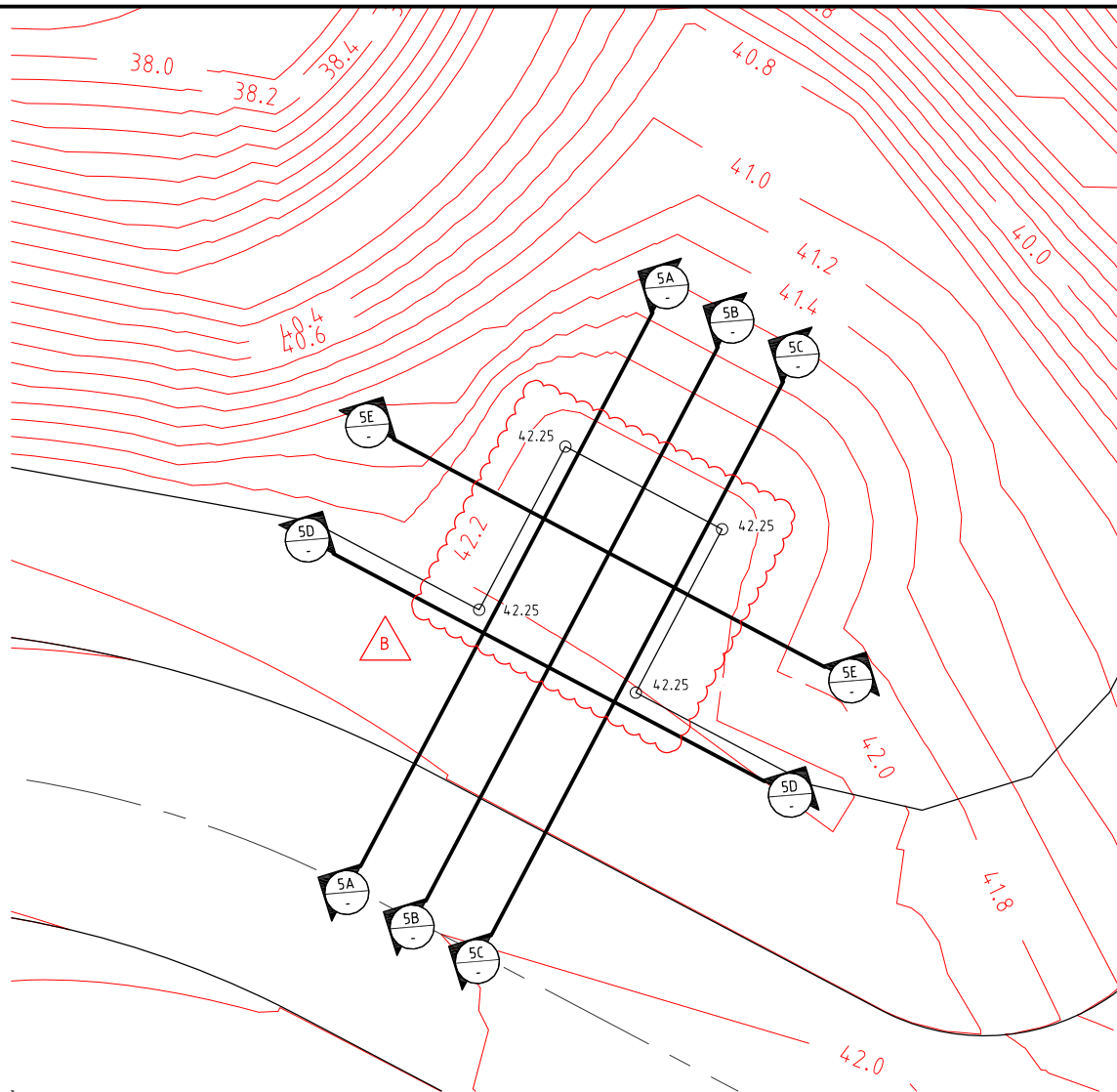
LONGITUDINAL SECTION 5D

Horizontal scale 1:100 Vertical scale 1:100



LONGITUDINAL SECTION 5E

Horizontal scale 1:100 Vertical scale 1:100



PROJECT NAME

COURTNEY DR
UPPER COOMERA

STAGE 04

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728

COURTNEY DRIVE

LOCALITY OF UPPER COOMERA

LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT



0 1 2 3 4 5m

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

B	07-08-24	LEVELS ADDED	BL
A	27-04-24	COUNCIL ISSUE	BL
REV	DATE	DESCRIPTION	INT

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ASSOCIATED CONSULTANTS



DRAWING TITLE

PADMOUNT SECTIONS
SHEET 01



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DESIGNED RB	DRAWN BL
APPROVED <i>a.k.m.</i>	REQ 4706
DRAWING NUMBER	REV
41901-04-075	B

SEDIMENT AND EROSION

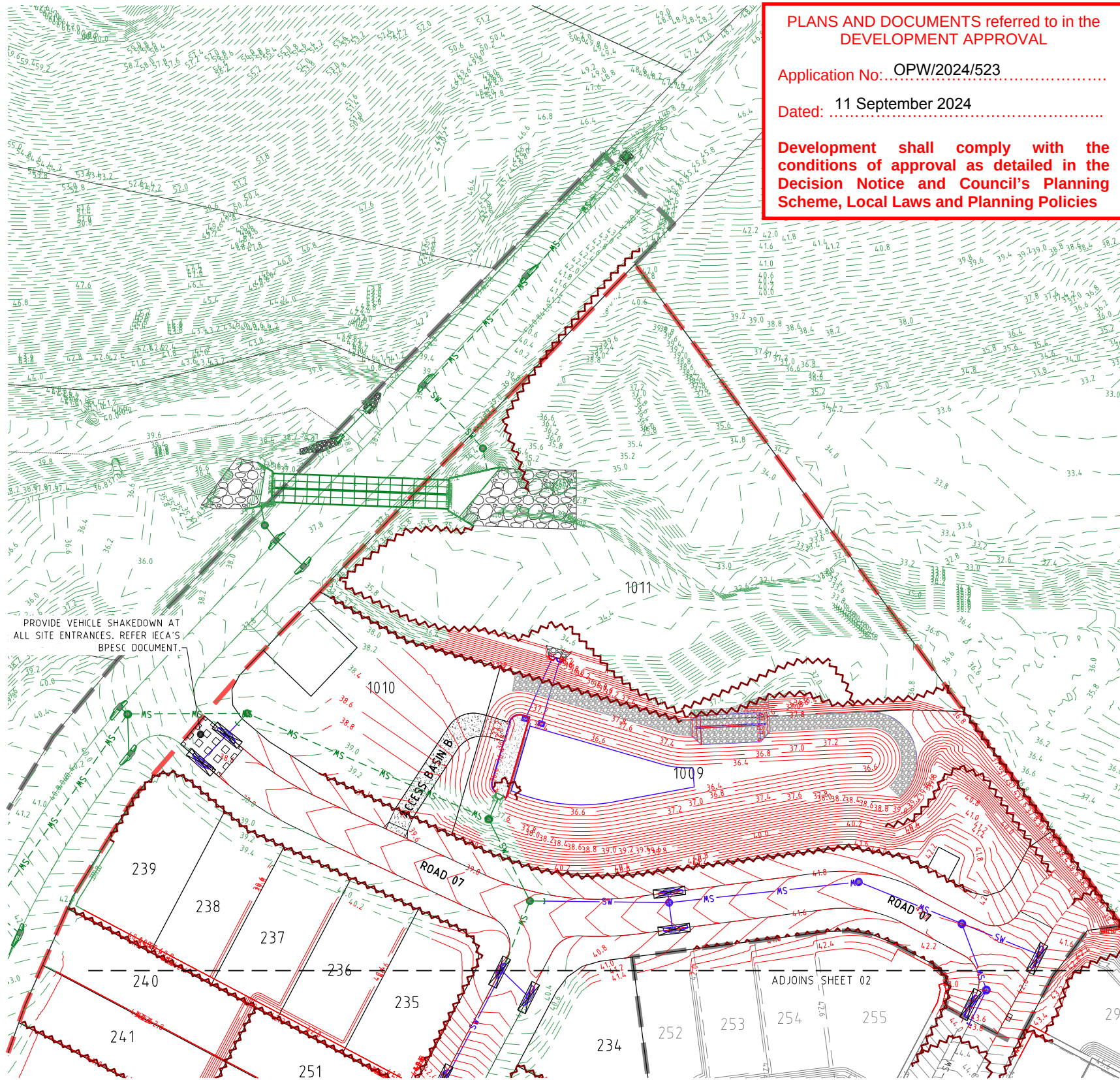
- THE EROSION & SEDIMENT CONTROL DEVICES SHOWN ON THESE DRAWINGS ARE INDICATIVE & PROVIDED FOR SUBMISSION TO LOCAL AUTHORITY ONLY. NOTWITHSTANDING THE EROSION & CONTROL DEVICES SHOWN ON THESE DRAWINGS, THE CONTRACTOR MUST PREPARE & FOLLOW A SITE SPECIFIC EROSION & SEDIMENT CONTROL PLAN TO MEET ALL LOCAL & STATE GOVERNMENT LEGISLATION INCLUDING BUT NOT LIMITED TO:
 - ENVIRONMENTAL PROTECTION ACT WITH SPECIFIC REFERENCE TO PARTS 5440G & 5319
 - STATE PLANNING POLICYPRESCRIBED 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).
- 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)
- 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.
- 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.
- 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.
- AT ALL TIMES THE CONTRACTOR SHALL MONITOR THE PREVAILING WEATHER CONDITIONS (INCLUDING WEEKENDS & PUBLIC HOLIDAYS) & AT ALL TIMES REMAINS RESPONSIBLE TO:
 - CLEAN & REPAIR CONTROL DEVICES WHENEVER THE ACCUMULATED SEDIMENT REDUCES THEIR CAPACITY BY 50%.
 - MAINTAIN POSITIVE GRADES OF ALL PERIMETER BANKS & SWALES TO AN OUTLET.
 - PROTECT ANY DOWNSTREAM CONSTRUCTION.
 - CONTROLLING DUST.
 - MEASURES HAVE BEEN INSTALLED IN ACCORDANCE WITH DETAILS OUTLINED IN THEIR EROSION & SEDIMENT CONTROL PLAN & AS DIRECTED BY THE SUPERINTENDENT.
- 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.
- 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.
- CONSTRUCTION STOCKPILING:
 - TOPSOIL SHALL BE STRIPPED & STOCKPILED IN LOCATIONS NOMINATED ON THE CONSTRUCTION DRAWINGS OR IN LOCATIONS AGREED WITH THE SUPERINTENDENT.
 - ADDITIONAL VEGETATION CLEARING IS NOT PERMITTED TO FACILITATE THE STOCKPILING OF MATERIALS UNLESS SHOWN ON THE APPROVED VEGETATION MANAGEMENT PLAN.
 - ANY STOCKPILE SITE MUST 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 OF VEGETATION.
 - A TEMPORARY SILT FENCE IS TO BE ERECTED APPROXIMATELY 5m FROM TOE OF BATTER ON LOW SIDE OF STOCKPILING.
- NOTWITHSTANDING THE DETAILS SHOWN IN THE CONTRACTOR'S EROSION & SEDIMENT CONTROL PLAN, DURING CONSTRUCTION THE CONTRACTOR MUST:
 - 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.
 - PLACE A ROCK BUND AROUND ALL HEADWALLS DURING CONSTRUCTION.
 - PROVIDE KERB INLET PROTECTION TO ALL GULLIES.
 - PLACE A MINIMUM 1.0m WIDE TURF STRIP BEHIND ALL KERBS & IN A HERRINGBONE LAYOUT WITHIN THE ROAD VERGE.
 - MAINTENANCE (INCLUDING FLOCCULATION IF REQUIRED & PUMP OUT) OF ALL CONSTRUCTION SEDIMENT BASINS (WHETHER EXISTING OR NEW).
 - CLEAN OUT OF ALL GROSS POLLUTANT TRAPS, SEDIMENT FOREBAYS & ALL OTHER PERMANENT SEDIMENT CONTROL DEVICES AT BOTH ON & OFF MAINTENANCE.
- CONTRACTOR TO CONFIRM THE EXTENTS OF REQUIRED GRASSING TREATMENTS WITH THE SUPERINTENDENT AT LEAST 7 DAYS PRIOR TO FINAL TRIMMING.
- 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.
- GEOTEXTILE LINING OF CHANNELS & CHECK DAMS MAY BE REQUIRED SUBJECT TO THE SITE CONDITIONS. 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.
- MAINTENANCE PERIOD (PRE TO POST CONSTRUCTION)
 - ALL PROTECTION MEASURES ARE TO BE INSPECTED & MAINTAINED REGULARLY
 - REPAIRS ARE TO BE EFFECTED IMMEDIATELY.
 - SILT AFTER RAIN IS TO BE CLEANED FROM STREETS & ALLOTMENTS IMMEDIATELY & CORRECTIVE ACTION TAKEN TO AVOID A RE-OCCURRENCE.
 - AT OFF-MAINTENANCE & ONLY WHEN DIRECTED BY COUNCIL, REMOVE & DISPOSE OFFSITE ALL TEMPORARY EROSION & SEDIMENT CONTROL DEVICES.
- EROSION & SEDIMENT CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR AND THE CONTRACTOR HOLDS ALL LIABILITY.

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: OPW/2024/523

Dated: 11 September 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 04

RP DESCRIPTION

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

CLIENT



0 5 10 15 20 25m
Scale 1500 - A1 (1:1000 - A3)

REV	DATE	DESCRIPTION	INT
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ASSOCIATED CONSULTANTS



DRAWING TITLE

FINAL SURFACE AND
SEDIMENT AND EROSION
PLAN
SHEET 01

MORTONS
urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

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DESIGNED	RB	DRAWN	BL
APPROVED	A.K.M.	PEQ4706	DATE 27-04-24

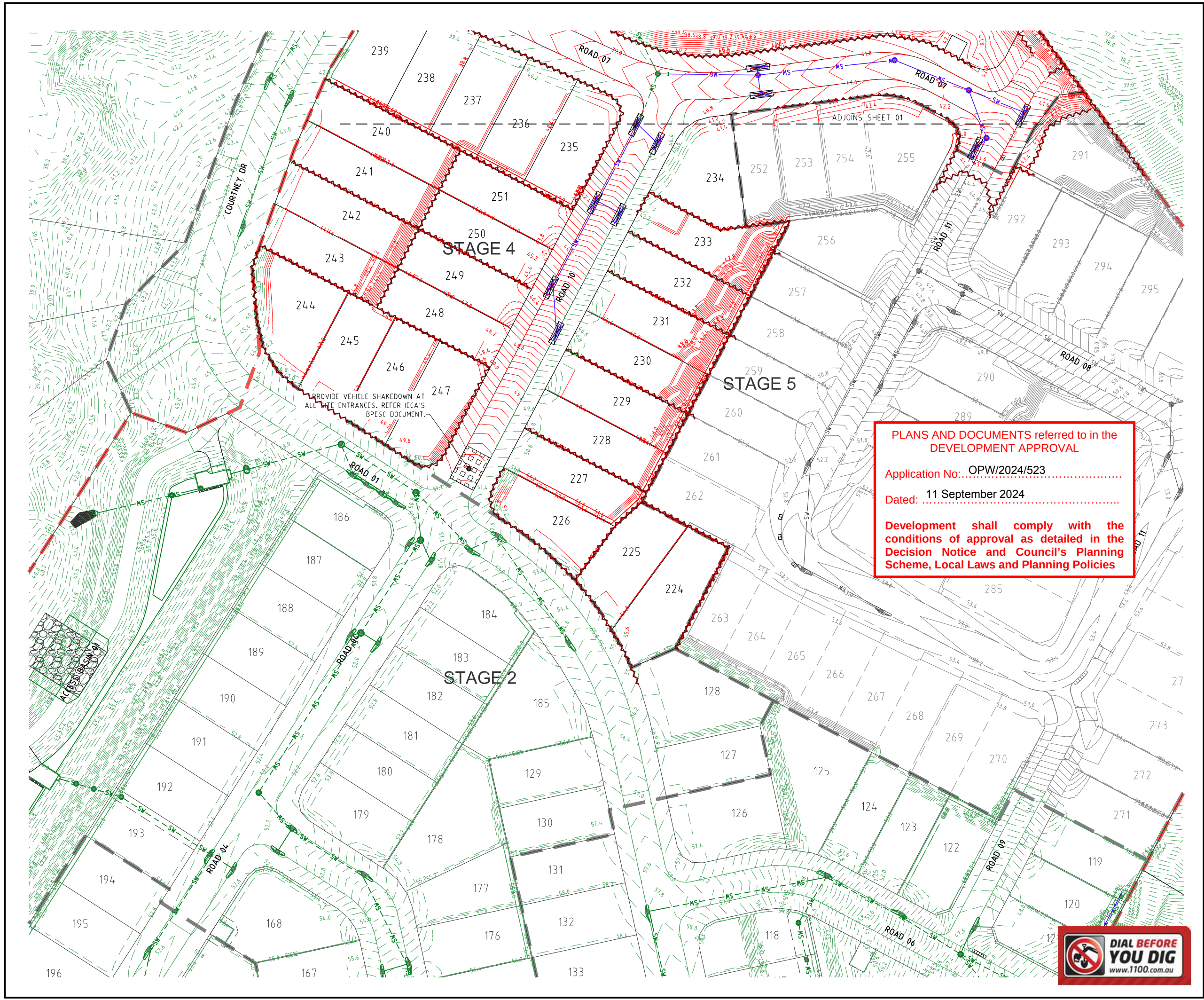
DRAWING NUMBER

41901-04-080

REV

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PROJECT NAME

COURTNEY DR
UPPER COOMERA

STAGE 04

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

CLIENT

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

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ASSOCIATED CONSULTANTS

WATER AND ENVIRONMENTAL CONSULTING

DRAWING TITLE

FINAL SURFACE AND
SEDIMENT AND EROSION
PLAN
SHEET 02

Urban & Regional Planning
Civil Engineering
Project Coordination

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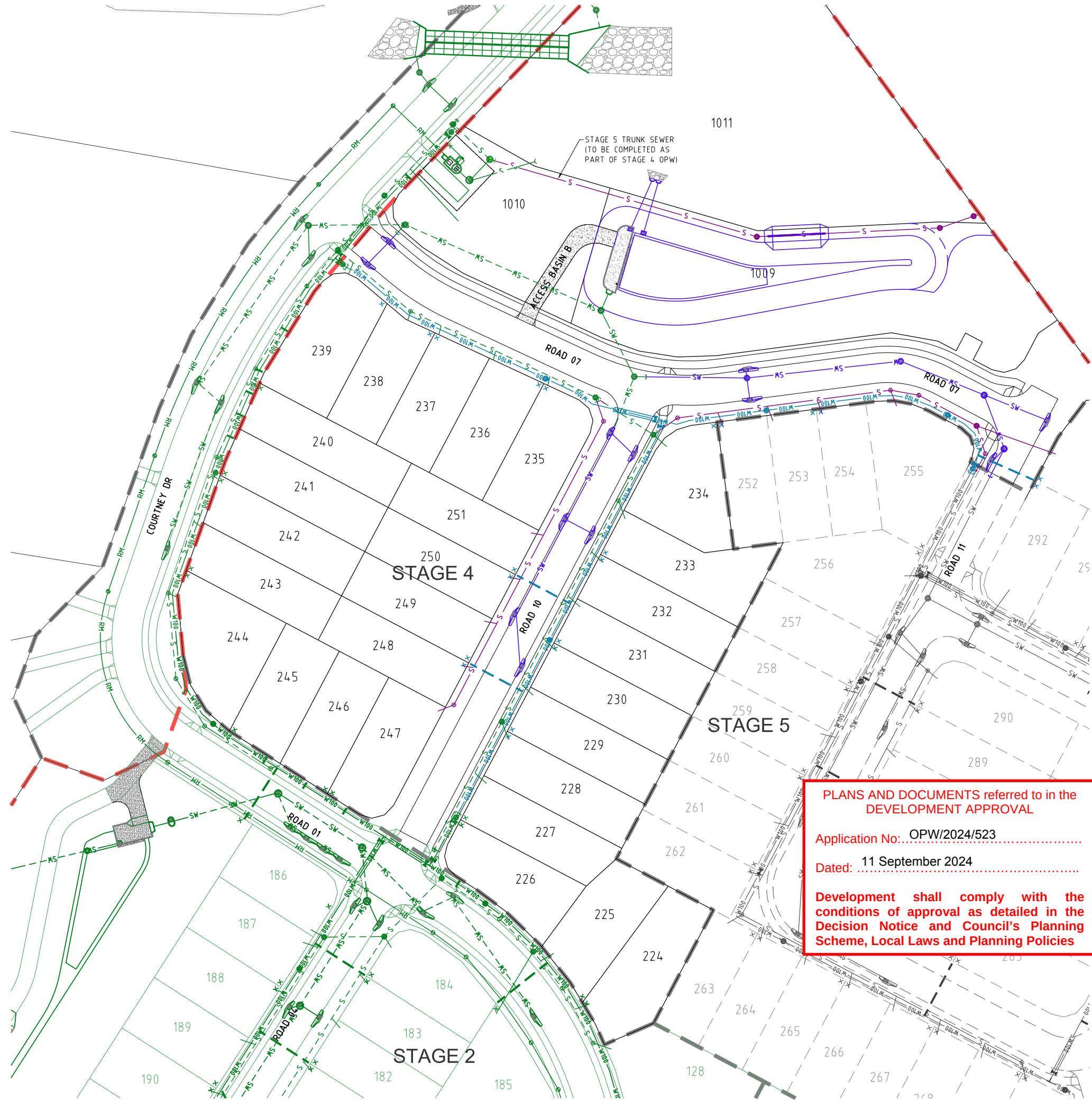
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APPROVED	DATE 27-04-24
DRAWING NUMBER 41901-04-081	REV A

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



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW/2024/523

Dated: 11 September 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 04

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728

COURTNEY DRIVE

LOCALITY OF UPPER COOMERA

LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT

0 5 10 15 20 25m

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

A	27-04-24	COUNCIL ISSUE	BL
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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

MORTONS
urban solutions
Urban & Regional Planning
Civil Engineering
Project Coordination

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APPROVED A.K.M.	DATE 27-04-24
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ROADWORKS

1. PAVEMENT DEPTHS
- a. THE DESIGN PAVEMENT DEPTHS ALLOWED IN EARTHWORKS CALCULATIONS ARE BASED ON THE AUTHORITY'S MINIMUM PAVEMENT BOX.
- b. THE PAVEMENT DEPTHS GIVEN ARE NOMINAL 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. IN PROJECTS EXPECTING LIME STABILISED SUBGRADE, THE CONTRACTOR MUST PROVIDE LIME DEMAND TEST RESULTS WITH THE CBR REPORT.
- c. THE SUPERINTENDENT WILL COORDINATE THE AUTHORITIES APPROVAL OF THE PAVEMENT DESIGN.
- d. REFER TO DWG. 120 FOR TYPICAL ROAD SECTIONS.
- e. 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.
- f. 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.
- g. 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.
- h. ROCK
- THE CONTRACTOR IS TO INCLUDE ROCK EXCAVATION AS PART OF THEIR RATES.
- i. 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. FOR ALL KERB TYPES REFER TO DWG 120.
8. PAVEMENT TIE-IN
- PAVEMENT TIE-IN TO BE IN ACCORDANCE WITH DWG. 120

LEGEND

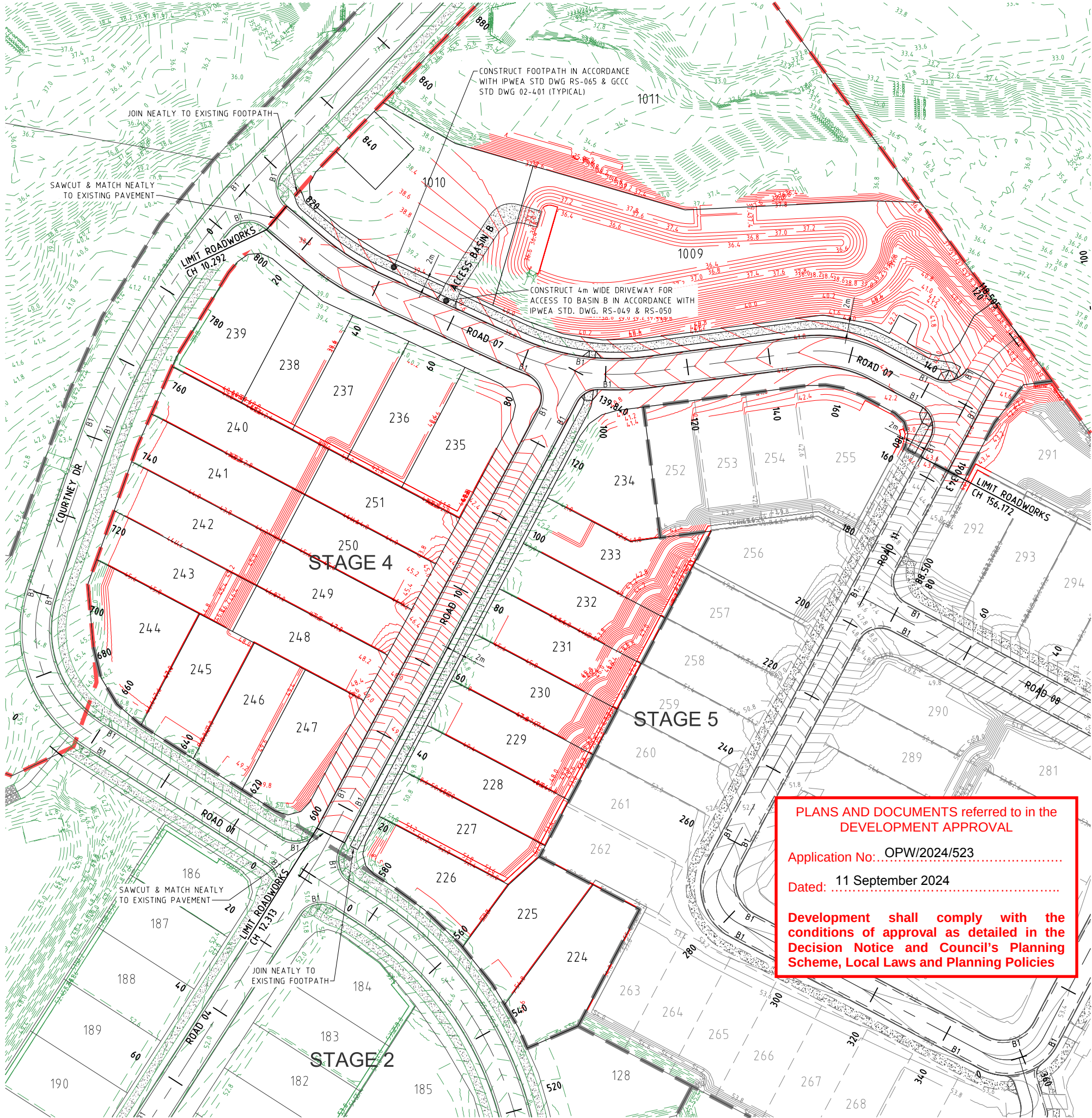
- EXISTING KERB (INVERT)
- EXISTING KERB (LIP & BACK)
- EXISTING FOOTPATH
- EXISTING PROPERTY LINE
- FUTURE KERB
- FUTURE FOOTPATH
- FUTURE PROPERTY LINE
- CONTROL LINE / CENTER OF ROAD
- PROPOSED KERB (INVERT)
- PROPOSED KERB (LIP & BACK)
- PROPOSED FOOTPATH
- PROPOSED PROPERTY LINE
- SITE BOUNDARY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

PROPOSED CONCRETE

41.065 CENTRELINE CHAINAGE

REFER TO DRG. 120 FOR KERB TYPES

B1 BARRIER KERB & CHANNEL



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW/2024/523

Dated: 11 September 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 04

RP DESCRIPTION

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

CLIENT



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ROADWORKS
PLAN
SHEET 01



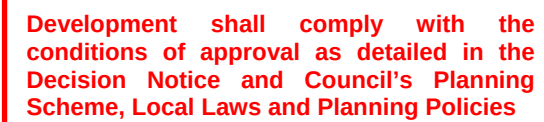
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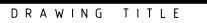
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LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL



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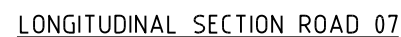


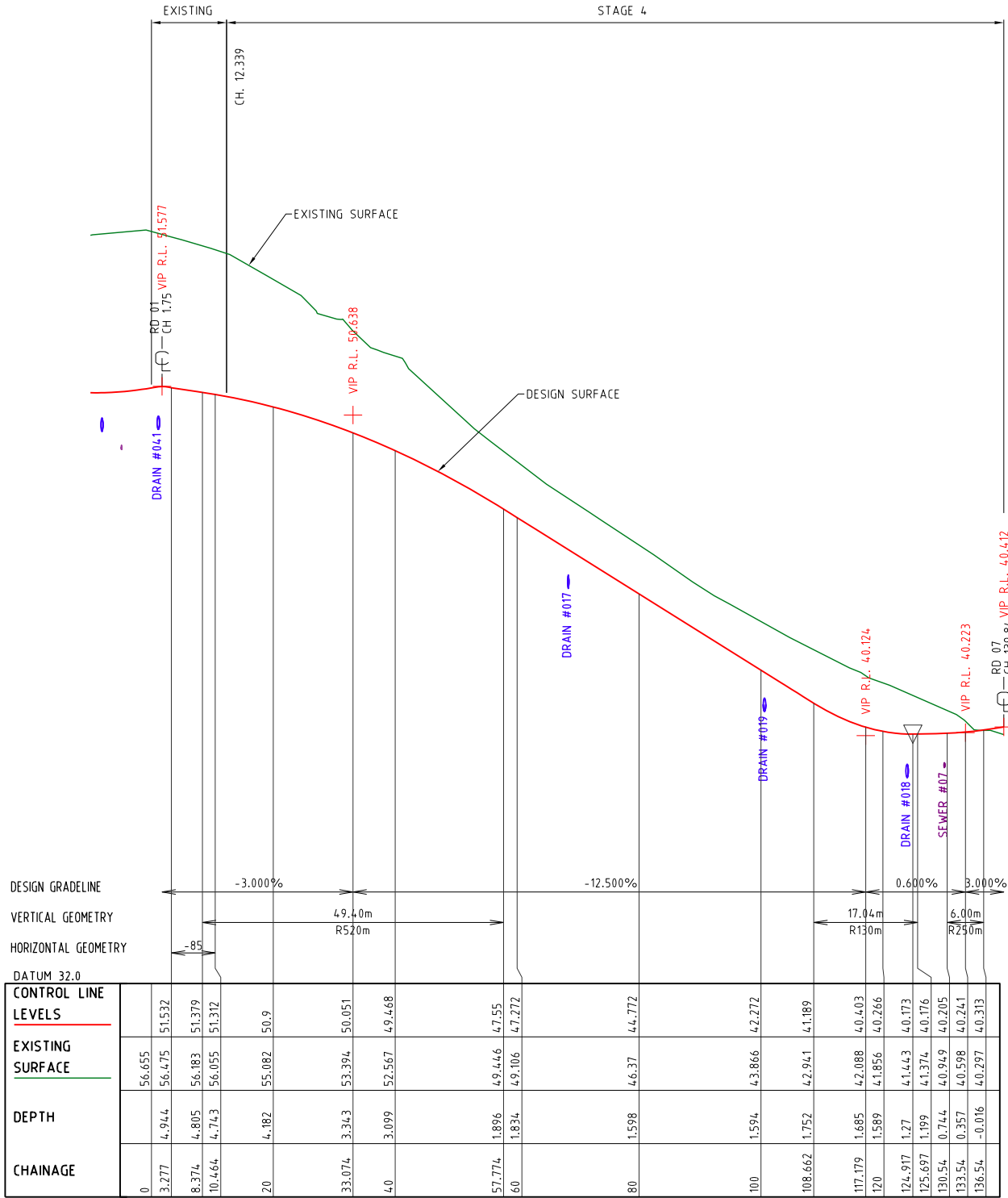
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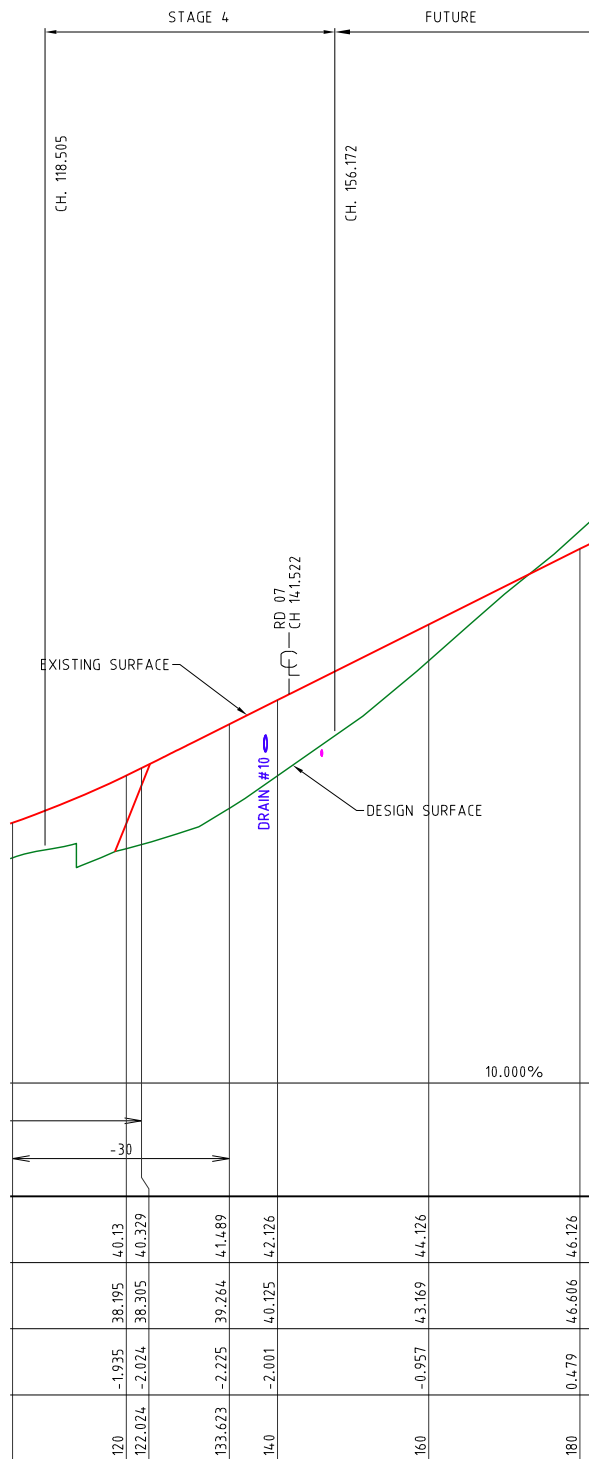
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RPEQ4706	
DRAWING NUMBER	REV
41901-04-200	A





LONGITUDINAL SECTION ROAD 10



LONGITUDINAL SECTION ROAD 11

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW/2024/523

Dated: 11 September 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

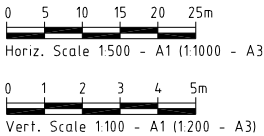
COURTNEY DR
UPPER COOMERA

STAGE 04

RP DESCRIPTION

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CLIENT



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ASSOCIATED CONSULTANTS



DRAWING TITLE

LONGITUDINAL SECTIONS
ROAD 10



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APPROVED	AK	REPEQ4706	DATE 27-04-24

DRAWING NUMBER

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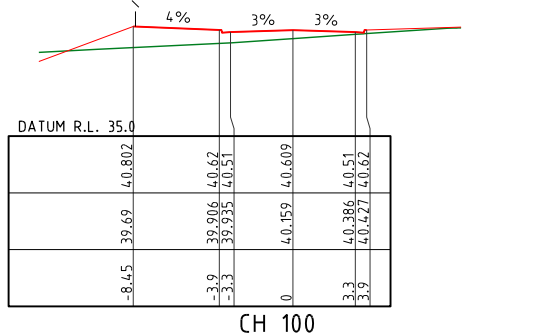
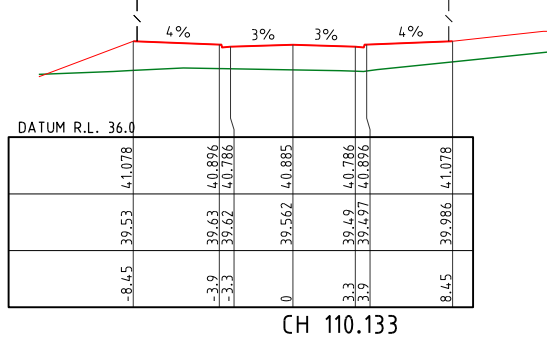
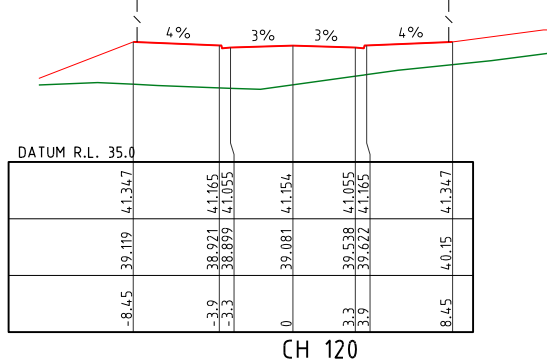
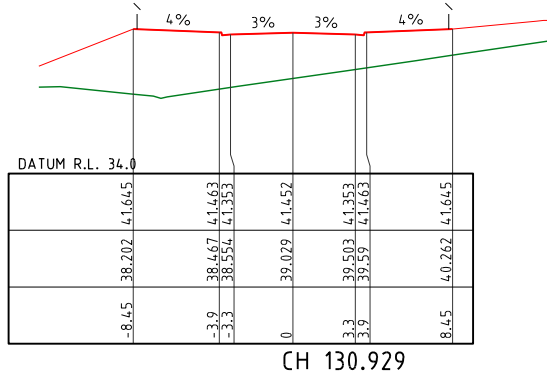
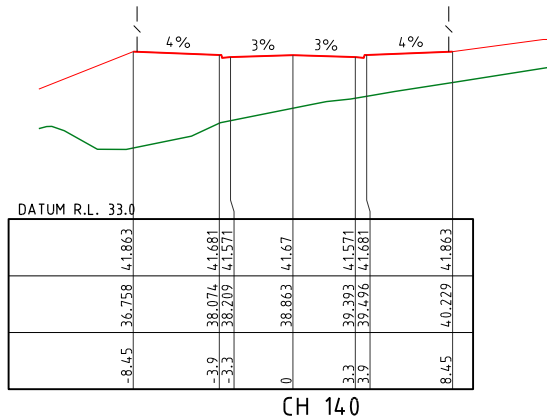
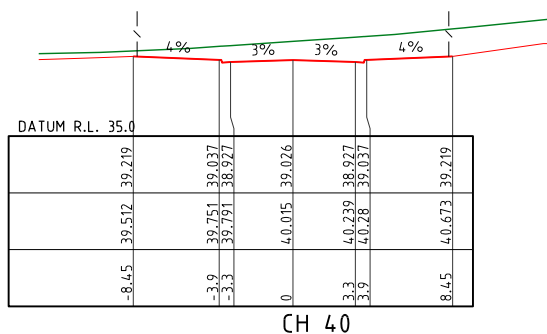
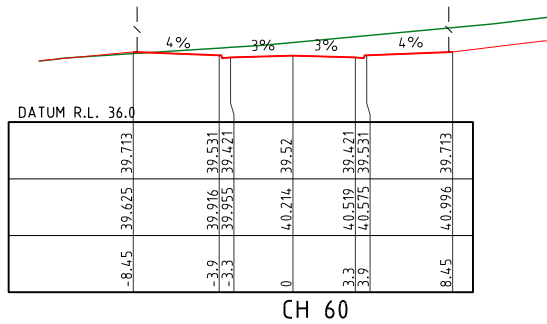
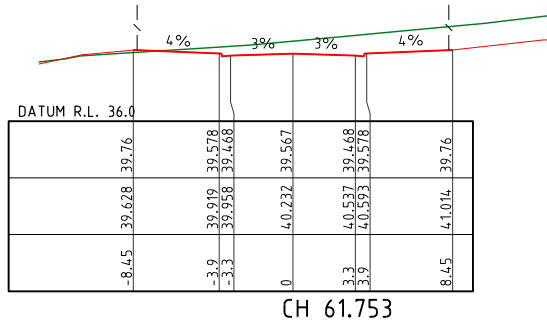
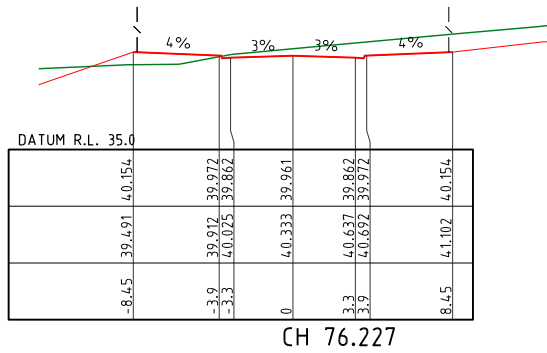
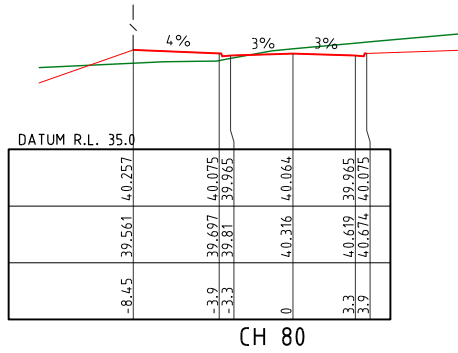
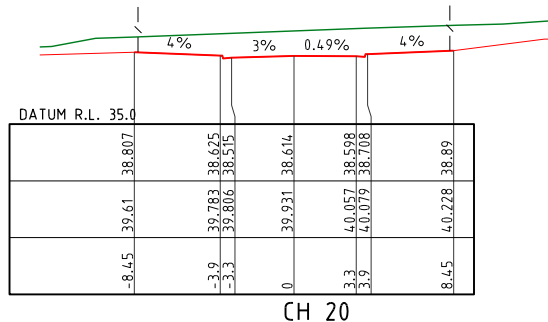
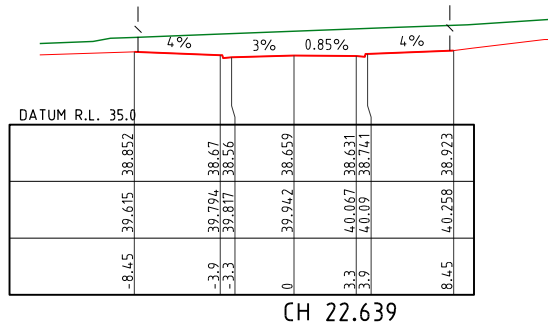
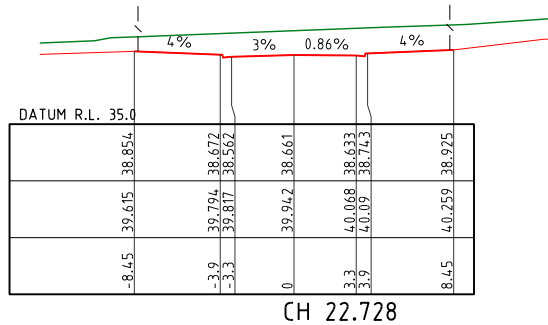
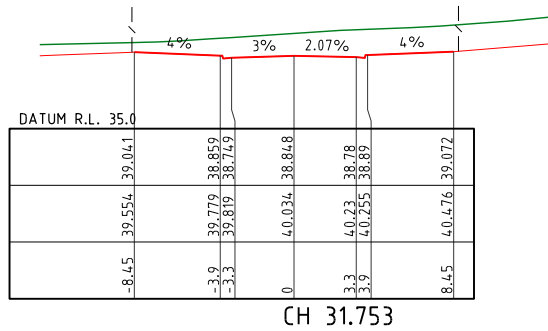
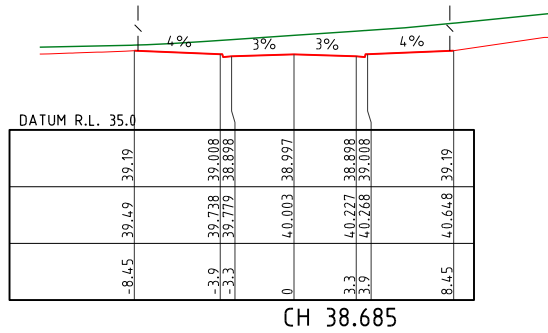
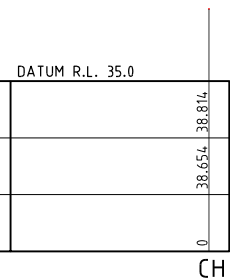
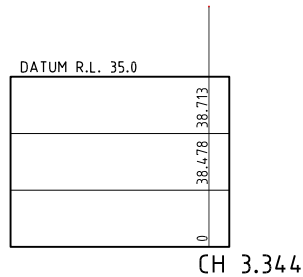
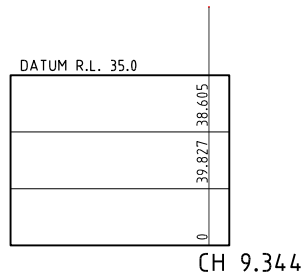
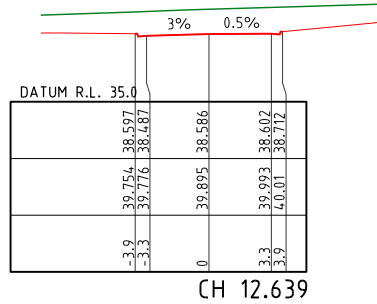
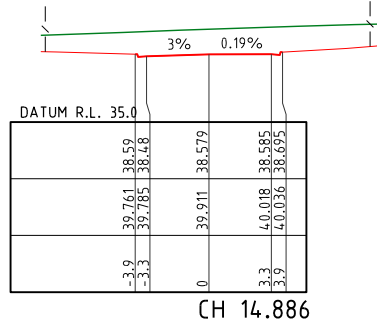
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PLANS AND DOCUMENTS referred to in the
DEVELOPMENT APPROVAL

Application No: OPW/2024/523

Dated: 11 September 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.

DESIGN SURFACE LEVEL	EXISTING SURFACE LEVEL	OFFSET
38.814	38.654	0

ROAD 07

PROJECT NAME

COURTNEY DR
UPPER COOMERA

STAGE 04

RP DESCRIPTION

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

CLIENT



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

REV	DATE	DESCRIPTION	INT
A	27-04-24	COUNCIL ISSUE	BL

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CROSS SECTIONS
ROAD 07



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

DESIGNED RB DRAWN BL

APPROVED A.K.M. RPEQ4706 DATE 27-04-24

DRAWING NUMBER REV

41901-04-300

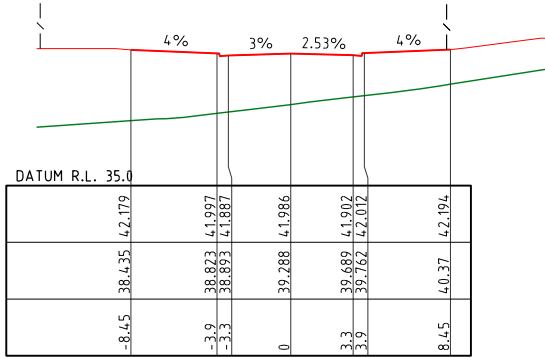
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PLANS AND DOCUMENTS referred to in the
DEVELOPMENT APPROVAL

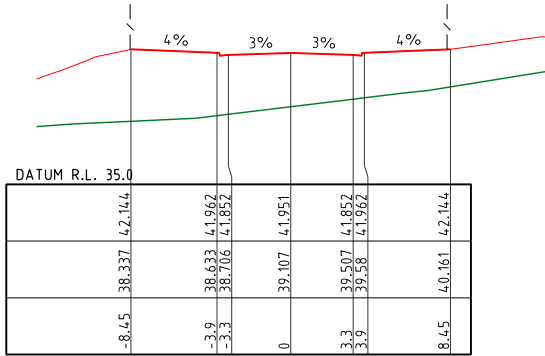
Application No: OPW/2024/523

Dated: 11 September 2024

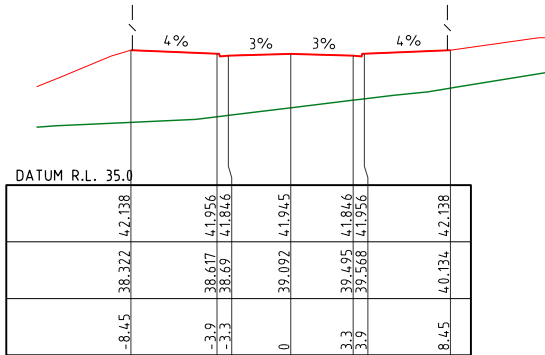
Development shall comply with the
conditions of approval as detailed in the
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Scheme, Local Laws and Planning Policies



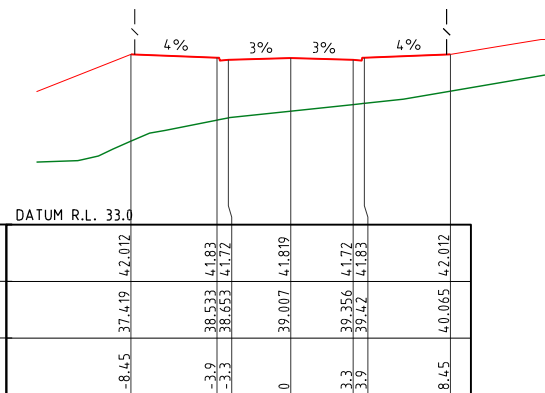
CH 166.766



CH 160.929

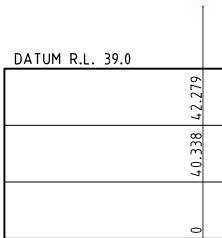


CH 160

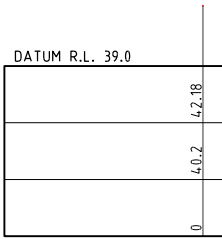


CH 148.296

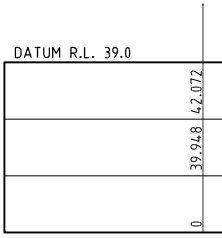
ROAD 07



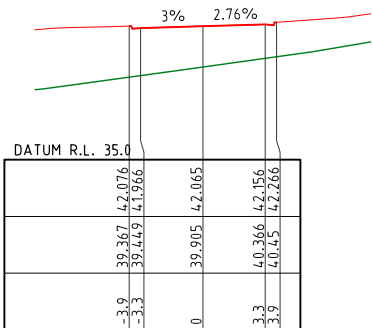
CH 190.343



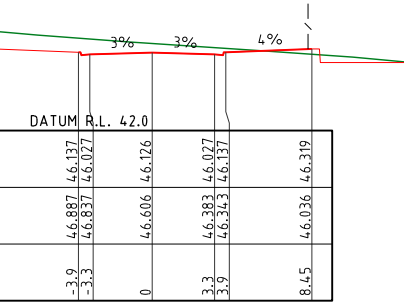
CH 187.043



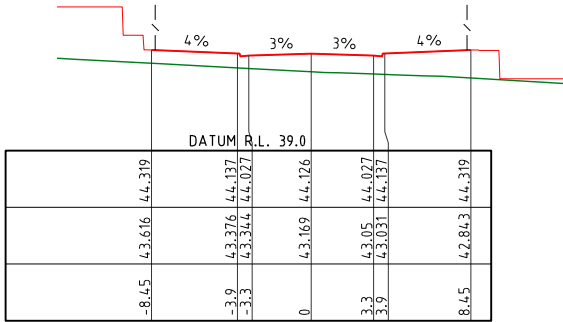
CH 181.043



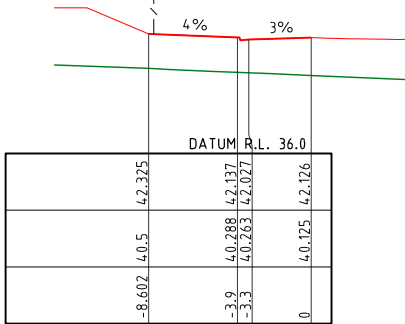
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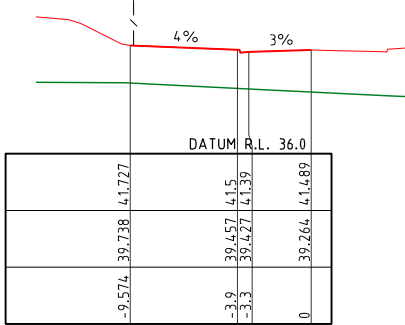
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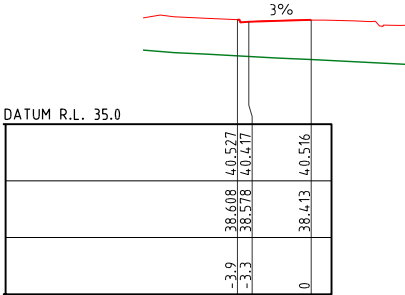
CH 160



CH 140



CH 133.623



CH 123.893

ROAD 11

PROJECT NAME

COURTNEY DR
UPPER COOMERA

STAGE 04

RP DESCRIPTION

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

CLIENT



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

REV	DATE	DESCRIPTION	INT
A	27-04-24	COUNCIL ISSUE	BL

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CROSS SECTIONS
ROAD 07 & ROAD 11



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DESIGNED	RB	DRAWN	BL
APPROVED	AK	REPEL706	DATE 27-04-24

DRAWING NUMBER
41901-04-301

REV
A

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	DATUM R.L. 48.0
EXISTING SURFACE LEVEL	
OFFSET	

CH 1.75

DATUM R.L. 48.0
56.475 51.532
0

CH 3.277

DATUM R.L. 48.0
56.183 51.379
0

CH 8.374

DATUM R.L. 48.0
56.055 51.312
0

CH 10.464

DATUM R.L. 46.0
54.597 51.093
54.835 50.911
54.869 50.801
55.082 50.9
55.267 50.876
55.3 50.986
8.45 55.555 51.168

CH 20

DATUM R.L. 37.0
44.005 42.465
43.941 42.283
43.93 42.173
43.866 42.272
43.803 42.173
43.791 42.283
43.99 42.465

CH 100

DATUM R.L. 41.0
46.401 44.965
46.367 44.783
46.368 44.673
46.37 44.772
46.373 44.673
46.371 44.783
46.329 44.965

CH 80

DATUM R.L. 43.0
49.116 47.465
49.106 47.283
49.106 47.173
49.106 47.272
49.105 47.173
49.105 47.283
49.117 47.465

CH 60

DATUM R.L. 43.0
49.462 47.743
49.45 47.561
49.448 47.451
49.446 47.55
49.445 47.451
49.445 47.561
49.461 47.743

CH 57.774

DATUM R.L. 46.0
52.119 49.661
52.355 49.479
52.385 49.369
52.567 49.468
52.666 49.369
52.634 49.479
52.62 49.661

CH 40

DATUM R.L. 37.0
40.949 40.205
40.96 40.268
40.948 40.378
43.9 3.3
43.9 3.3

CH 130.54

DATUM R.L. 37.0
41.355 40.187
41.358 40.077
41.374 40.176
41.391 40.175
41.394 40.285
41.353 40.467

CH 125.697

DATUM R.L. 37.0
41.424 40.184
41.426 40.074
41.443 40.173
41.459 40.163
41.462 40.273
41.407 40.455

CH 124.917

DATUM R.L. 37.0
41.885 40.459
41.859 40.277
41.86 40.167
41.856 40.266
41.816 40.191
41.808 40.301
41.753 40.483

CH 120

DATUM R.L. 37.0
43.073 41.382
43.014 41.2
43.003 41.09
42.941 41.189
42.88 41.09
42.869 41.2
42.975 41.382

CH 108.662

DATUM R.L. 37.0
40.158 40.412
0

CH 139.84

DATUM R.L. 37.0
40.297 40.313
0

CH 136.54

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW/2024/523

Dated: 11 September 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 04

RP DESCRIPTION

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

CLIENT



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

REV	DATE	DESCRIPTION	INT
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ROAD 10



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Gold Coast Office:
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Southport QLD 4215

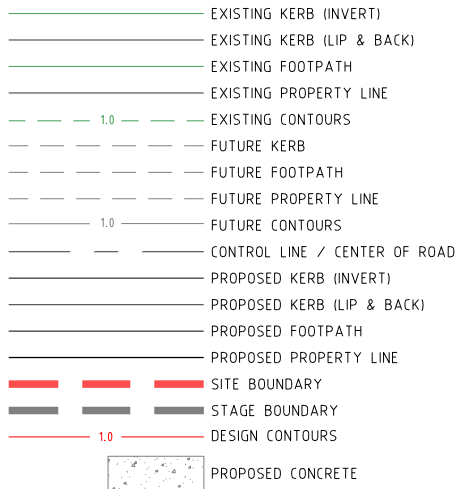
DESIGNED	RB	DRAWN	BL
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APPROVED	AK	REPEQ	4706	DATE	27-04-24
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DRAWING NUMBER
41901-04-302

REV
A

LEGEND



24.0 _ 41.065 INTERSECTION CHAINAGE & LEVEL
B1 BARRIER KERB & CHANNEL
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

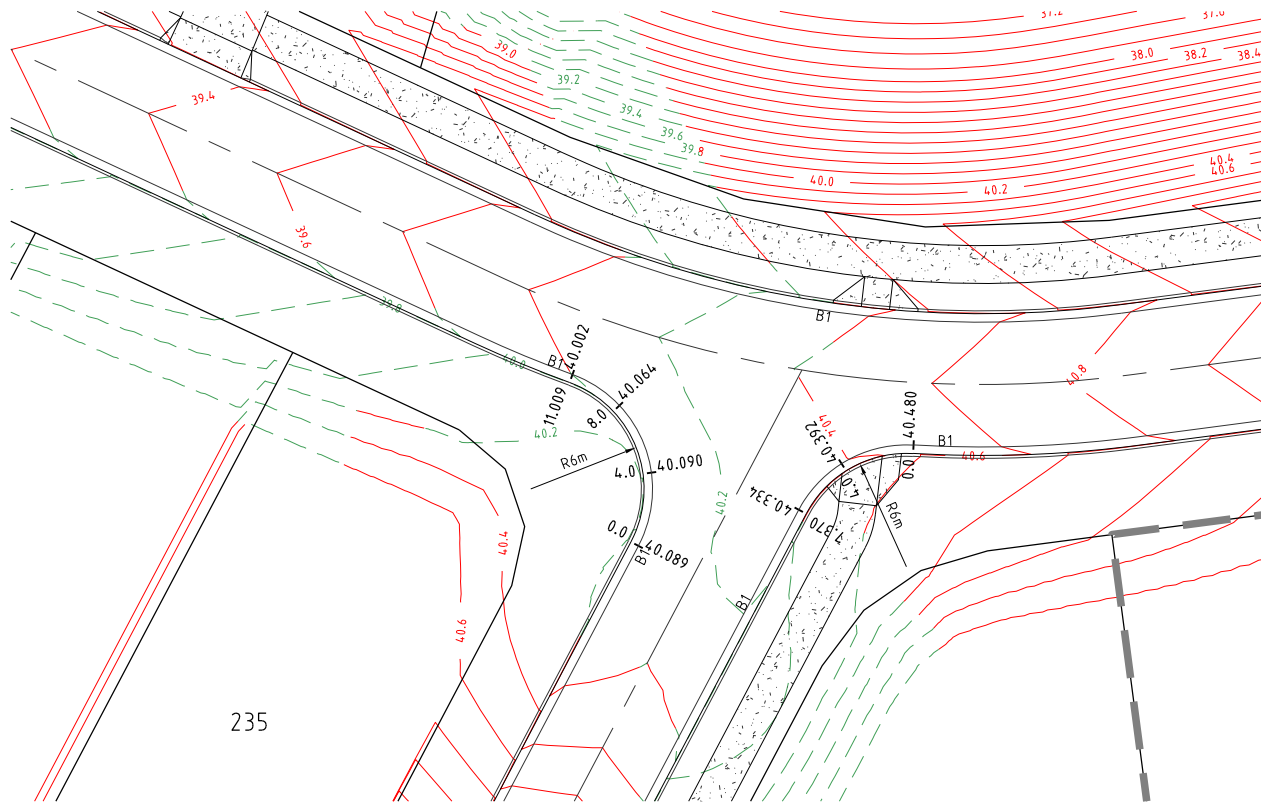


PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW/2024/523

Dated: 11 September 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



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 STANDARDS
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"



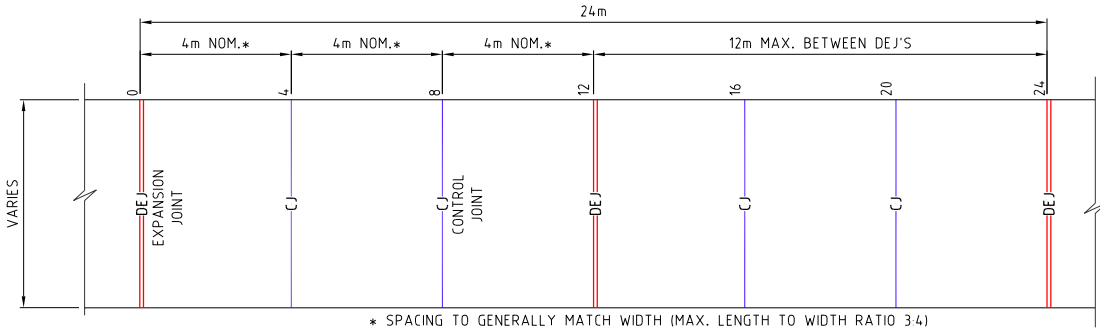
LEGEND

- EXISTING PROPERTY LINE
- EXISTING KERB
- FUTURE KERB
- FUTURE PROPERTY LINE
- PROPERTY LINE
- FACE OF KERB, FOOTPATHS
- LIP AND BACK OF KERB
- CONTROL LINE / CENTER OF ROAD
- 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.

SCHEDULE OF CONCRETE PAVEMENTS

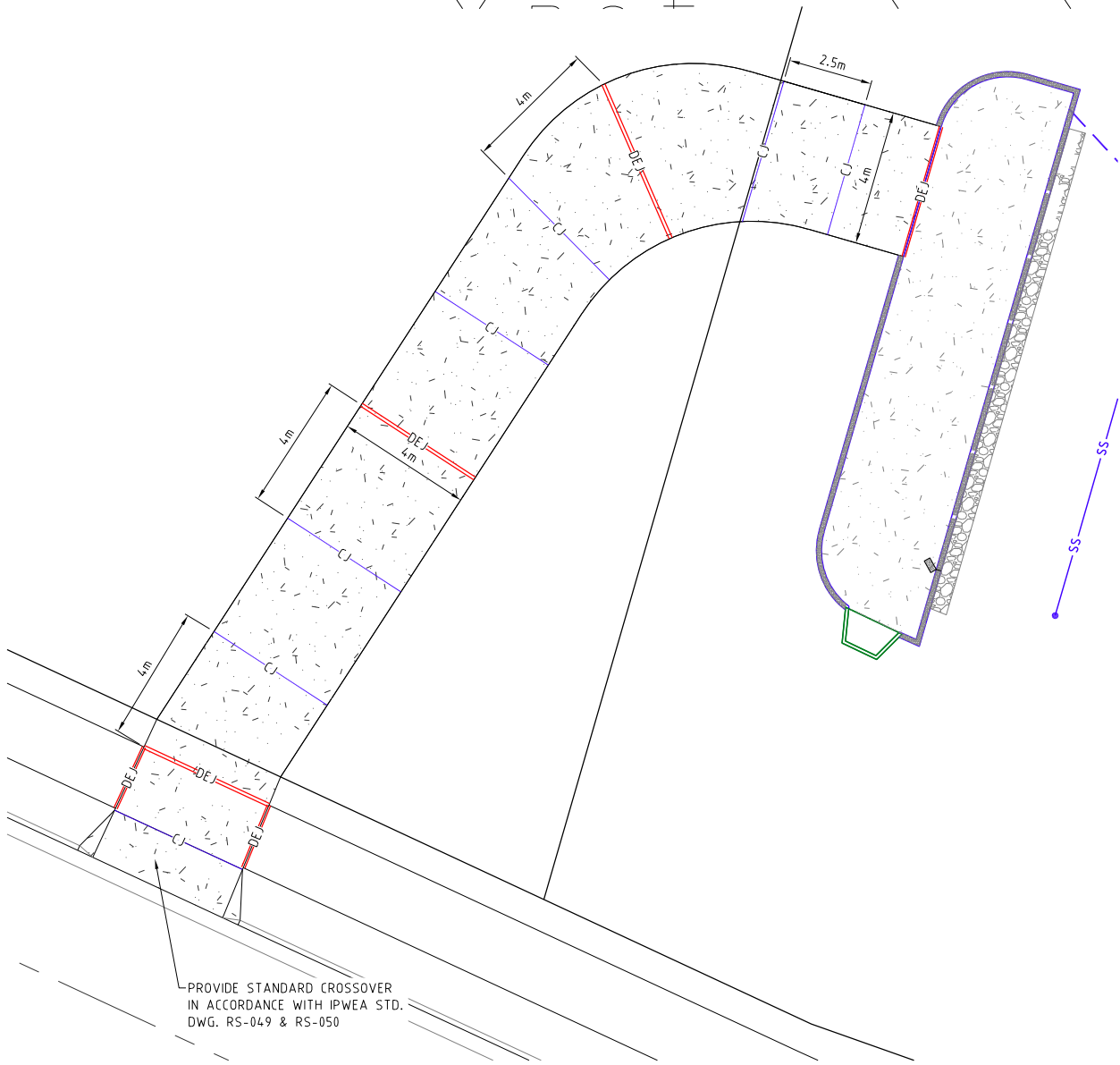
FUNCTION	SURFACING	SUBGRADE PREPARATION	THICKNESS 'T'	STRENGTH	REINFORCING
FOOTPATH 2.0M WIDE	HEAVY BROOM FINISH	50mm SAND BLINDING LAYER	100mm	32 mPa	SL 72 MESH
DRIVEWAY STORMWATER BASIN	HEAVY BROOM FINISH	100mm (CBR 15)	175mm	32 mPa	SL 72 MESH

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

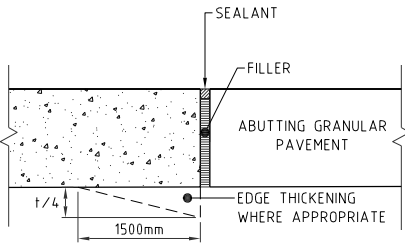


TYPICAL CONCRETE PAVEMENT DETAIL FOR DRIVEWAYS AND ROADS

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



PROVIDE STANDARD CROSSOVER
IN ACCORDANCE WITH IPWEA STD.
DWG. RS-049 & RS-050



ISOLATION JOINT (IJ)

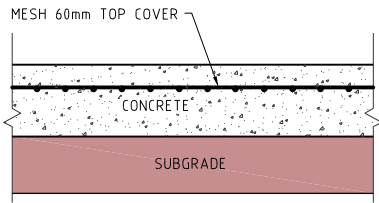
NOT TO SCALE

PLANS AND DOCUMENTS referred to in the
DEVELOPMENT APPROVAL

Application No: OPW/2024/523

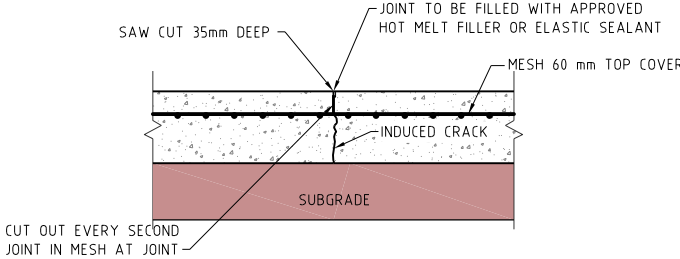
Dated: 11 September 2024

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conditions of approval as detailed in the
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Scheme, Local Laws and Planning Policies



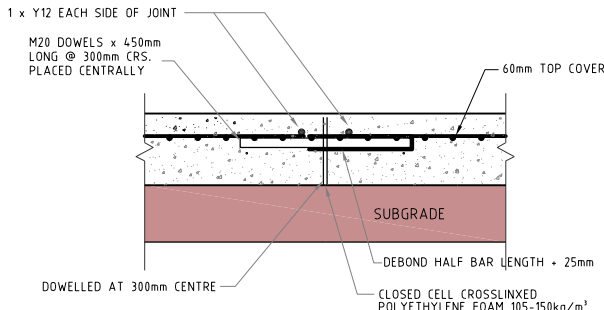
TYPICAL BROOM FINISHED
CONCRETE PAVEMENT DETAIL

NOT TO SCALE



CONTROL JOINT (4m SPACING) (CJ)

NOT TO SCALE



DOWELLED EXPANSION JOINT
DETAIL (24m SPACING) (DEJ)

NOT TO SCALE

PROJECT NAME

COURTNEY DR
UPPER COOMERA

STAGE 04

RP DESCRIPTION

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

CLIENT



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

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

REV	DATE	DESCRIPTION	INT
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DRAWING TITLE

CONCRETE JOINTING
DETAILS
SHEET 01



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Gold Coast Office:
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Southport QLD 4215

DESIGNED	RB	DRAWN	BL
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APPROVED	AK	REQ	706	DATE	27-04-24
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DRAWING NUMBER

41901-04-410

REV

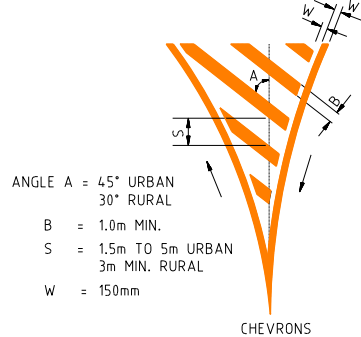
A

- 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



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



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No.: OPW/2024/523

Dated: 11 September 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 04

RP DESCRIPTION

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

CLIENT



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

B	07-08-24	SIGN SIZE AMENDED	BL
A	27-04-24	COUNCIL ISSUE	BL
REV	DATE	DESCRIPTION	INT

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**LINEMARKING & SIGNAGE
PLAN
SHEET 01**



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DESIGNED RB	DRAWN BL
APPROVED <i>A.K.M.</i>	PEQ 4706 DATE 27-04-24
DRAWING NUMBER 41901-04-420	REV B

SEQ CODE SEWER NOTES

SEQ CODE NOTES COPIED DIRECTLY FROM DRAWING SEQ-SEW-1101-3 (REV B).

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

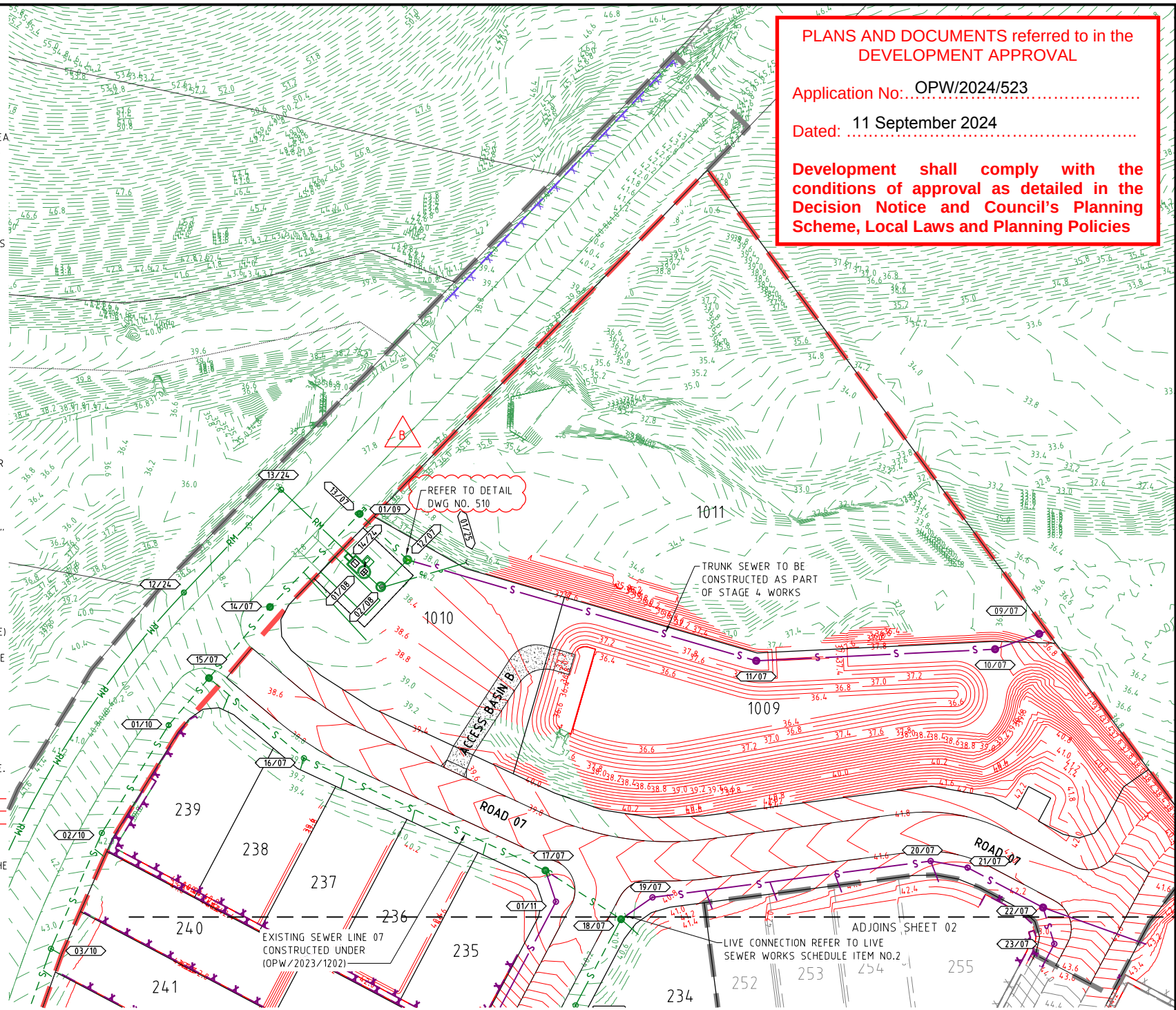
1. ALL WORK & MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT SOUTH EAST QUEENSLAND SEWERAGE CODE SPECIFICATIONS & STANDARDS.
2. UNLESS SPECIFIED OTHERWISE ALL MATERIALS & WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
3. THE CONSTRUCTION OF THE SEWERAGE WORK SHOWN ON THIS DRAWING SHALL BE SUPERVISED 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 DN160 PE (OR 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 AND 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 AND 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 LICENSED 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 160 & A MAXIMUM DEPTH OF PROPERTY CONNECTION AT 1.5m. UNLESS OTHERWISE STATED.
- i. CONTRACTOR TO PAY ALL FEES & CHARGES ASSOCIATED WITH CONNECTIONS.

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 ID
SEWER MANHOLE
SEWER RODDING END
SEWER BEND
SEWER MAINTENANCE SHAFT
SEWER END CAP
SEWER PUMP STATION

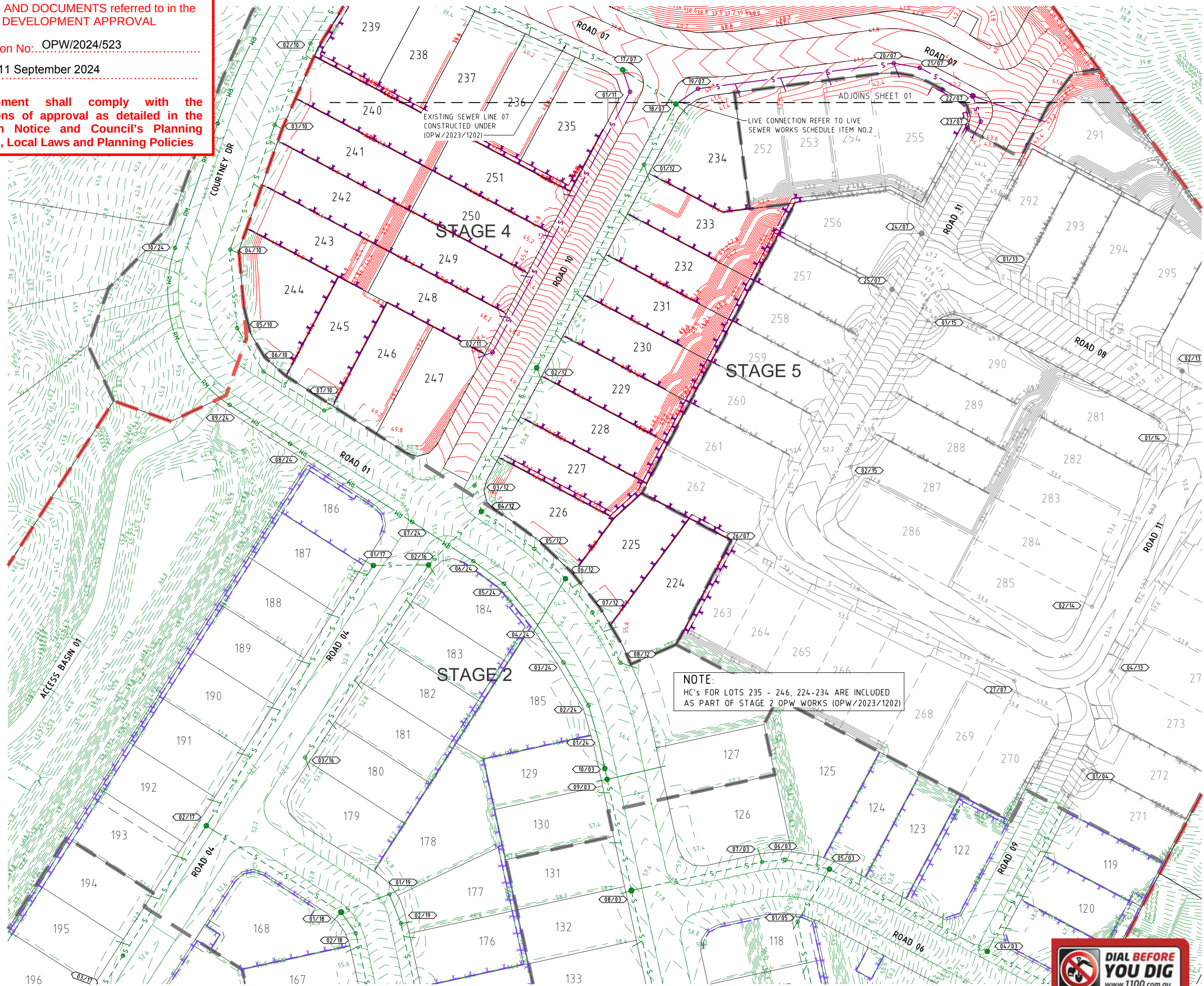


PLANS AND DOCUMENTS referred to in the
DEVELOPMENT APPROVAL

Application No: OPW/2024/523

Dated: 11 September 2024

Development shall comply with the
conditions of approval as detailed in the
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PROJECT NAME

COURTNEY DR
UPPER COOMERA

STAGE 04

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728

COURTNEY DRIVE

LOCALITY OF UPPER COOMERA

LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT



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

REV	DATE	DESCRIPTION	INT
A	27-04-24	COUNCIL ISSUE	BL

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ASSOCIATED CONSULTANTS



DRAWING TITLE

SEWER RETICULATION
PLAN
SHEET 02

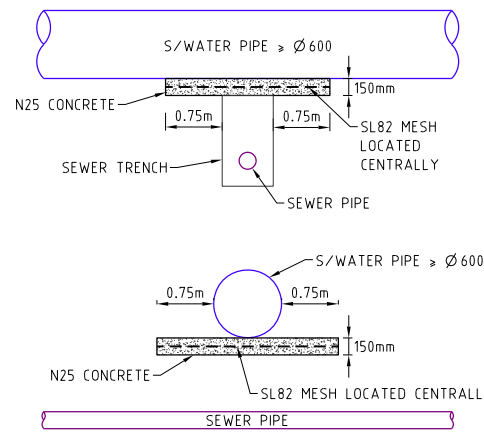


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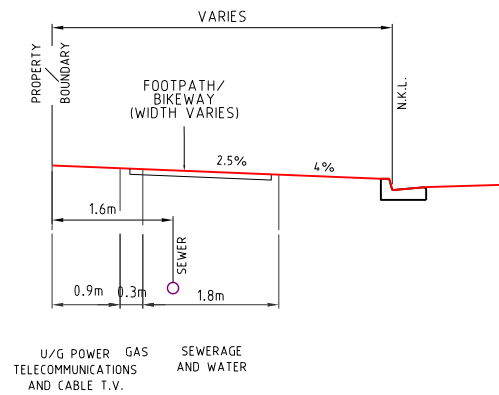
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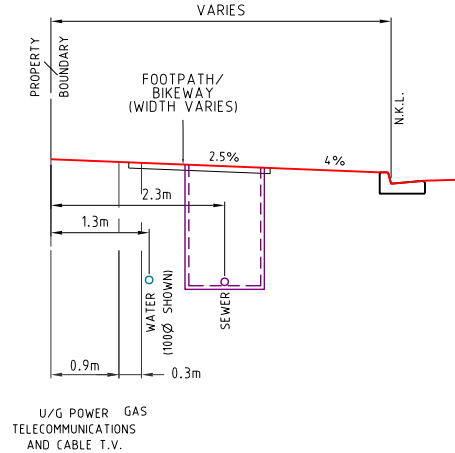
DESIGNED	RB	DRAWN	BL
APPROVED	AK	PEQ4706	DATE 27-04-24
DRAWING NUMBER			REV
41901-04-501			A



**BRIDGING DETAILS FOR
STORMWATER PIPES > Ø 600**
NOT TO SCALE



**C.O.G.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.



**C.O.G.C. TYPICAL POTABLE WATER AND
SEWER RETICULATION (SAME SIDE)**
SCALE 1:50 - A1 (1:100 - A3)

PLANS AND DOCUMENTS referred to in the
DEVELOPMENT APPROVAL

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PROJECT NAME
**COURTNEY DR
UPPER COOMERA**

STAGE 04
RP DESCRIPTION
LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL



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

0 0.2 0.4 0.6 0.8 1.0m
Scale 1:20 - A1 (1:40 - A3)

B	07-08-24	DETAILS ADDED	BL
A	27-04-24	COUNCIL ISSUE	BL
REV	DATE	DESCRIPTION	INT

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DRAWING TITLE
**SEWER RETICULATION
DETAILS
SHEET 01**

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Civil Engineering
Project Coordination
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DESIGNED RB	DRAWN BL	DATE 27-04-24
APPROVED <i>a.k.m.</i>	REPEQ 706	REV
DRAWING NUMBER 41901-04-510	REV B	

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

RIGS STRUCTURE TYPES	
Plx)	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
BN D	BEND REFER TO SEQ STD DWGS SEQ-SEW-1314-3
RE	RODDING END MAINTENANCE STRUCTURE REFER TO SEQ STD DWGS SEQ-SEW-1314-1
EN D	PROPRIETARY END CAP
PS	SEWER PUMP STATION REFER TO RELEVANT SEQ STD DWGS
RC M	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

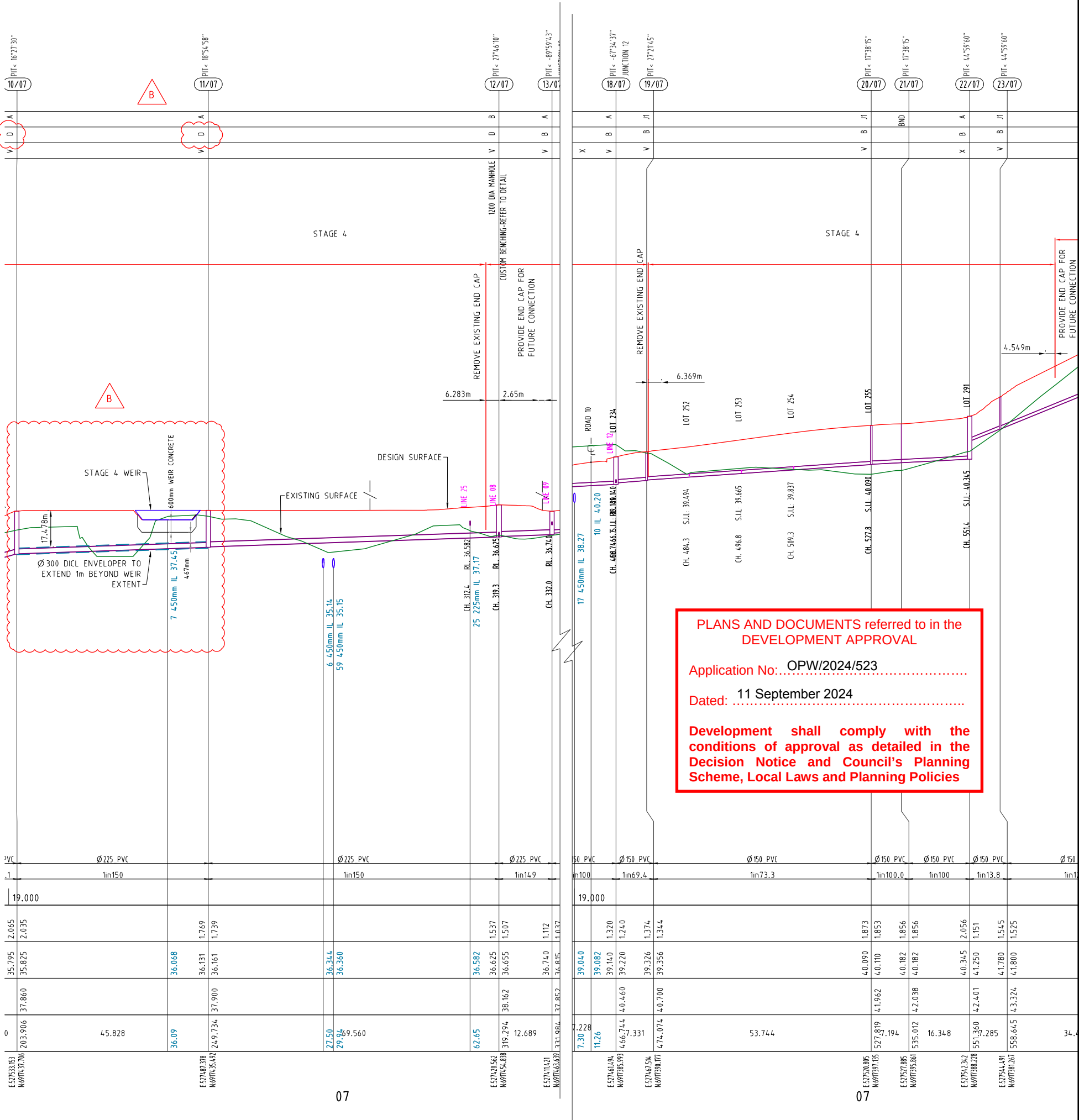
- IF SHOWN, WATER AND ELECTRICAL CROSSING LOCATIONS ARE INDICATIVE ONLY. REFER TO PLANS TO DETERMINE CROSSING LOCATIONS. WHERE SERVICE INDICATES CLASH WITH SEWER, SEWER TO TAKE PRECEDENCE. SERVICE TO BE CONSTRUCTED OVER OR UNDER SEWER ACCORDING TO SUPERINTENDENTS INSTRUCTION
- ALL GRAVITY uPVC SEWER PIPE TO BE CLASS SN8 U.N.O.
- ALL PRESSURE MAINS PE100 PN16 SDR11
- ALL EMBEDMENT TYPE IS TO BE TYPE 3 U.N.O.
- ALL BENDS TO BE LONG RADIUS BEND, 1.2m RADIUS MIN.
- CONTRACTOR TO VERIFY DOWNSTREAM EXISTING PIPE LEVELS PRIOR TO COMMENCEMENT OF PIPEWORK
- PROTECTIVE COATING IS TO BE INSTALLED TO MAINTENANCE STRUCTURES (WHERE REQUIRED) IN ACCORDANCE WITH CLAUSE 4.7.2 OF SEQ SEWERAGE CODE.
- TRENCHSTOPS IN ACCORDANCE WITH SEQ-WAT-1209-1

PIPE DIAMETER (mm)
PIPE GRADE

DATUM R.L.

DEPTH TO INVERT	
PIPE INVERT LEVELS	
DESIGN SURFACE LEVELS	
CHAINAGE	

LINE NO.



PROJECT NAME

COURTNEY DR
UPPER COOMERA

STAGE 04

RP DESCRIPTION

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

CLIENT

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)

B	07-08-24	PROFILE AMENDED	BL
A	27-04-24	COUNCIL ISSUE	BL
REV	DATE	DESCRIPTION	INT

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ASSOCIATED CONSULTANTS

WATER AND ENVIRONMENTAL CONSULTING

DRAWING TITLE

SEWER RETICULATION
PROFILES
SHEET 01

Urban & Regional Planning
Civil Engineering
Project Coordination

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DESIGNED RB	DRAWN BL
APPROVED	REPEQ4706 DATE 27-04-24
DRAWING NUMBER	REV
41901-04-530	B

STRUCTURE TYPE
LID CLASS
DROP TYPE

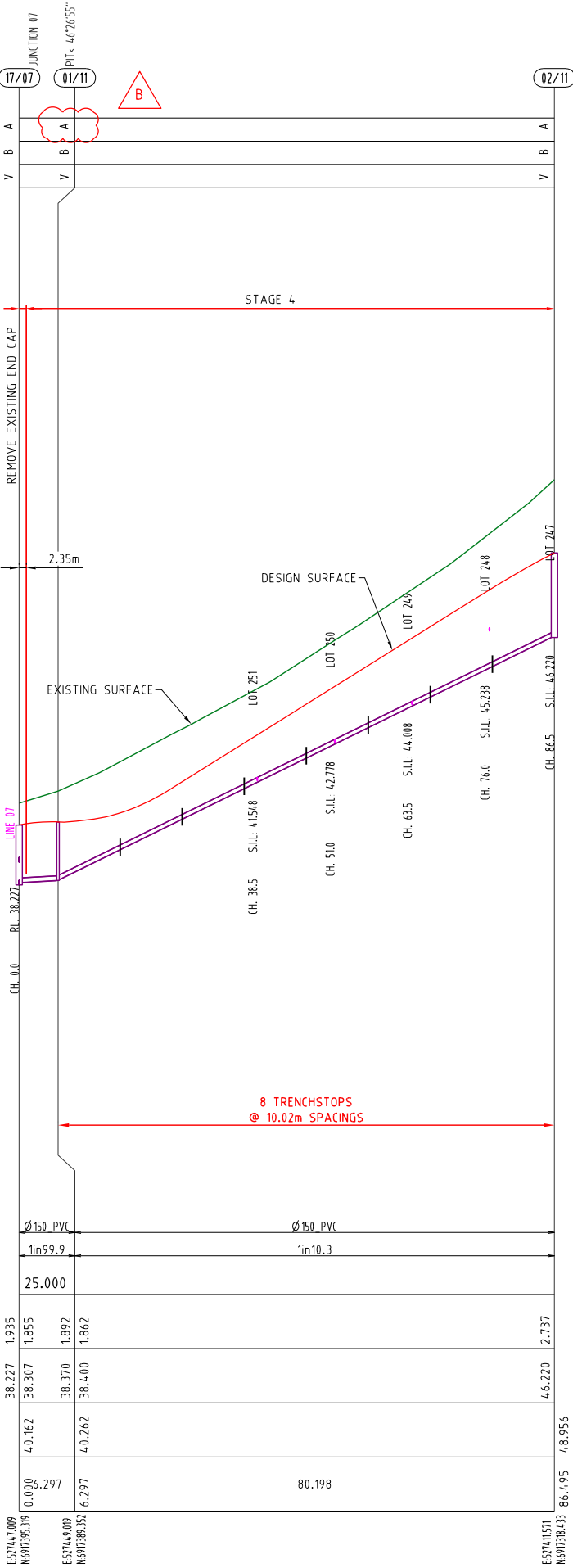
* CONSTRUCT BRIDGING
STRUCTURE SPANNING THE
SEWER TRENCH REFER
TYPICAL SECTIONS &
DETAILS FOR BRIDGING
STRUCTURE DETAILS
TRENCHSTOPS,
BULKHEADS & CONCRETE
ENCASEMENTS TO BE
INSTALLED IN
ACCORDANCE WITH SEQ
SEWER CODE

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

2.ALL GRAVITY uPVC
SEWER PIPE TO BE
CLASS SN8 U.N.O.
3.ALL PRESSURE MAINS
PE100 PN16 SDR11
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
WITH SEQ-WAT-1209-1
PIPE DIAMETER (mm)
PIPE GRADE

DATUM R.L.
DEPTH TO INVERT
PIPE INVERT LEVELS
DESIGN SURFACE LEVELS
CHAINAGE

LINE NO.



PLANS AND DOCUMENTS referred to in the
DEVELOPMENT APPROVAL

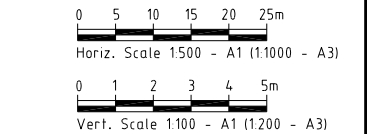
Application No: OPW/2024/523

Dated: 11 September 2024

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UPPER COOMERA

STAGE 04
RP DESCRIPTION
LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL



B	07-08-24	STRUCTURE TYPE AMENDED	BL
A	27-04-24	COUNCIL ISSUE	BL
REV	DATE	DESCRIPTION	INT

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DRAWING TITLE
SEWER RETICULATION
PROFILES
SHEET 02

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Southport QLD 4215

DESIGNED RB	DRAWN BL
APPROVED A.K.M.	REPEL706
DATE 27-04-24	REV
DRAWING NUMBER 41901-04-531	B

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

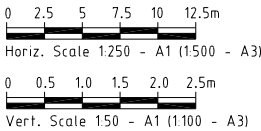


PROJECT NAME
**COURTNEY DR
UPPER COOMERA**

STAGE 04

RP DESCRIPTION
LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
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CLIENT



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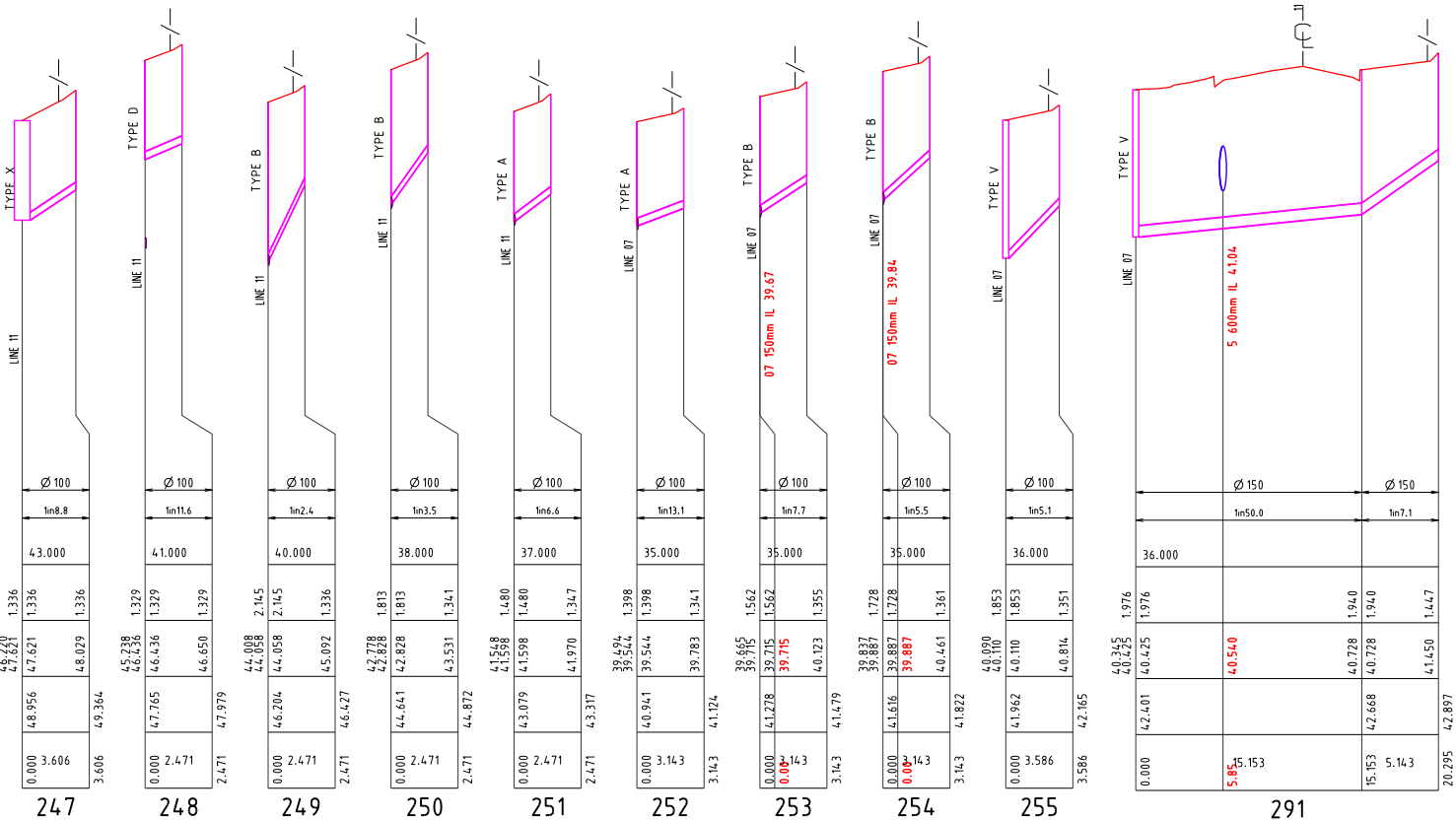
NOTES

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 SN10 UNLESS NOTED OTHERWISE

PIPE DIAMETER (mm)
PIPE GRADE

DATUM R.L.
DEPTH TO INVERT
PIPE INVERT LEVELS
DESIGN SURFACE LEVELS
CHAINAGE

LOT NO.



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ASSOCIATED CONSULTANTS



DRAWING TITLE

SEWER RETICULATION
HOUSE CONNECTION
PROFILES
SHEET 01



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DESIGNED RB	DRAWN BL
APPROVED <i>A.K. Morris</i>	REQ 4706
DRAWING NUMBER 41901-04-550	DATE 27-04-24 REV A

STORMWATER

- ALL FIELD GULLIES SHALL CONTAIN A 150mm DIA STUB 600mm BELOW GRADE LEVEL FOR FUTURE ROOFWATER DRAINAGE.
- 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).
- OUTLET HEADWALLS TO BE IN ACCORDANCE WITH LOCAL COUNCIL STANDARD DRAWINGS.
- ALL HEADWALLS WITH A FALL GREATER THAN 900mm HIGH REQUIRE INSTALLATION OF PEDESTRIAN SAFETY FENCES.
- PIPE JOINT TYPES TO BE IN ACCORDANCE WITH LOCAL AUTHORITY REQUIREMENTS.
- ALL ALLOTMENTS TO BE GRADED SUCH THAT FUTURE ROOFWATER DRAINAGE DISCHARGES TO KERB OR TO PIPED DRAINAGE SYSTEM.
- 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.
- FOR SETOUT DETAILS REFER TO 640 SERIES DRAWINGS (PROFILES & PIT DETAILS).
- 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.
- 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.
- 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.
- THE CONTRACTOR IS TO INCLUDE ROCK EXCAVATION AS PART OF THEIR STORMWATER RATE.
- 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.
- KERB ADAPTORS ARE TO BE INSTALLED TO AUTHORITIES REQUIREMENTS.
- ALL RBCB SLABS ARE TO BE CAST INSITU.
- ALL STORMWATER PITS ARE TO BE BENCH TO ALLOW FREE DRAINING FLOW.
- ALL PIPES TO BE LAID IN ACCORDANCE WITH LOCAL AUTHORITY STANDARDS.

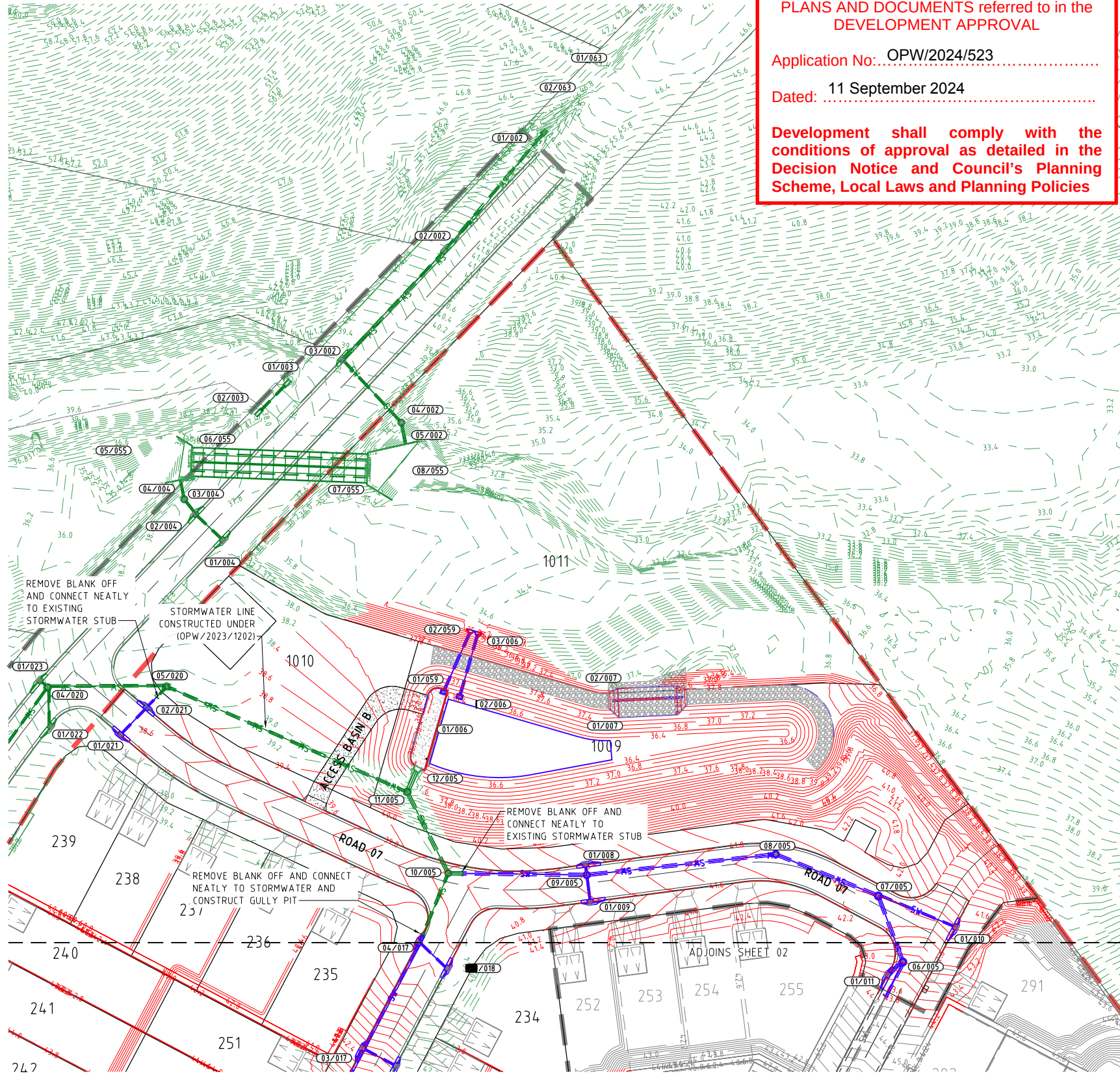
LEGEND

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

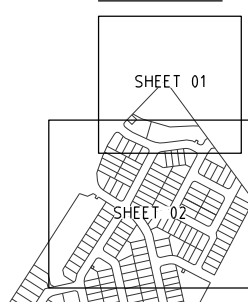
REFERENCE POINT LOCATION FOR DRAINAGE STRUCTURES

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



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW/2024/523

Dated: 11 September 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 04

RP DESCRIPTION

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

CLIENT



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

REV	DATE	DESCRIPTION	INT
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ASSOCIATED CONSULTANTS



DRAWING TITLE

STORMWATER
DRAINAGE
PLAN
SHEET 01



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ABN 39 116 375 065
mortons@urbansolutions.net.au
www.urbansolutions.net.au
Tel 07 5571 1099

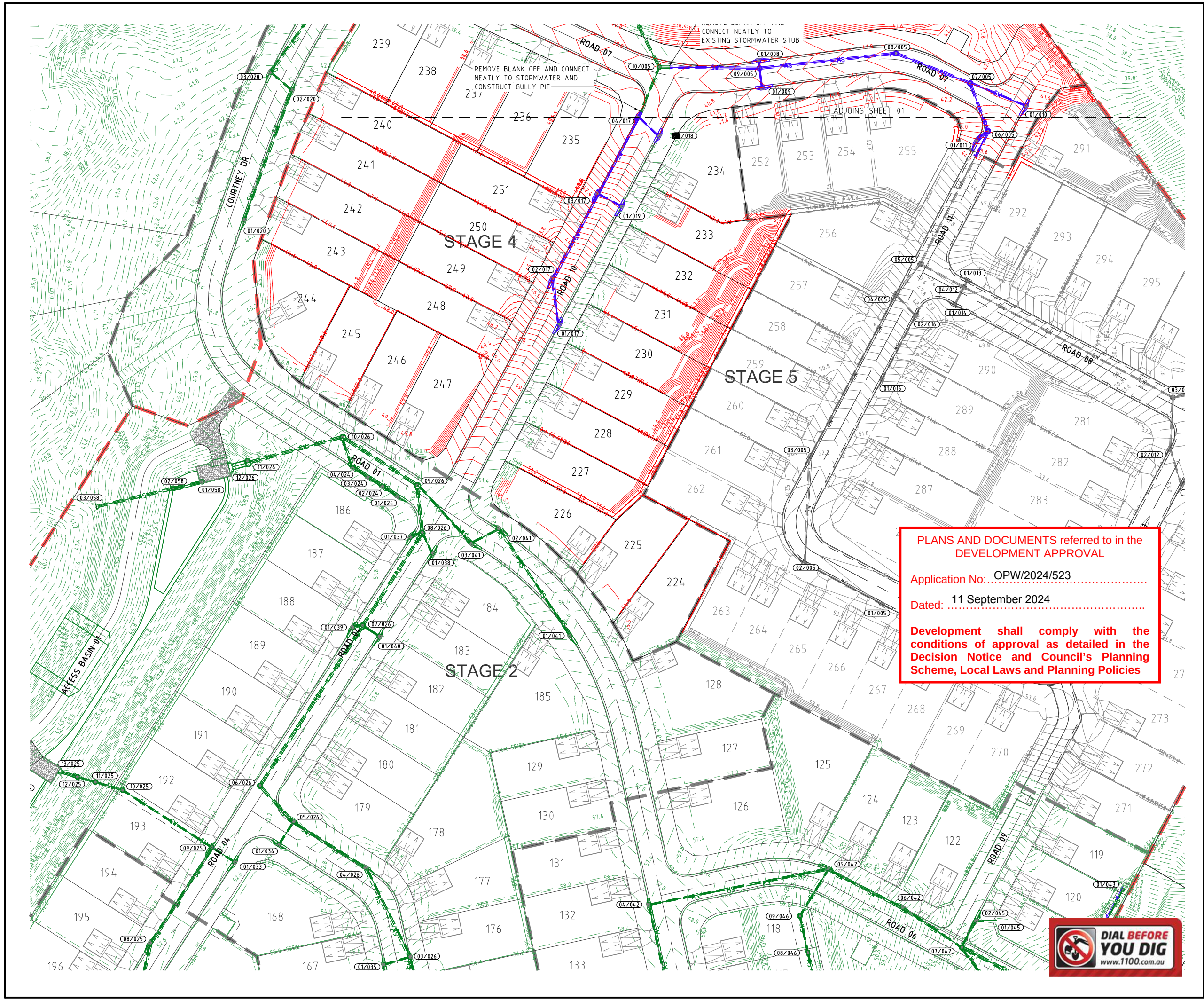
Postal Address
PO Box 2484
Southport QLD 4215

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

DESIGNED	RB	DRAWN	BL
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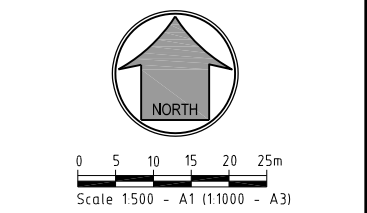
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DRAWING NUMBER	REV
41901-04-600	A



PROJECT NAME
**COURTNEY DR
UPPER COOMERA**

STAGE 04
RP DESCRIPTION
LOT 188, 189, 190, 191 & 192 ON RP173728
COURTNEY DRIVE
LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL



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A	27-04-24	COUNCIL ISSUE	BL

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ASSOCIATED CONSULTANTS



DRAWING TITLE

STORMWATER
DRAINAGE
PLAN
SHEET 02



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Southport QLD 4215

DESIGNED RB	DRAWN BL
APPROVED <i>AK</i>	REVIEWED <i>AK</i>
DRAWING NUMBER 41901-04-601	REV A

STRUCTURE NAME

STRUCTURE DESCRIPTION

NOTES

- 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.
- 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.

PIPE GRADE (%)

PIPE DIAMETER (mm)

VELOCITY (m/s)

PIPE FLOW (m³/s)

PIPE CLASS

DATUM R.L.

DEPTH TO INVERT

HYDRAULIC GRADE LINE

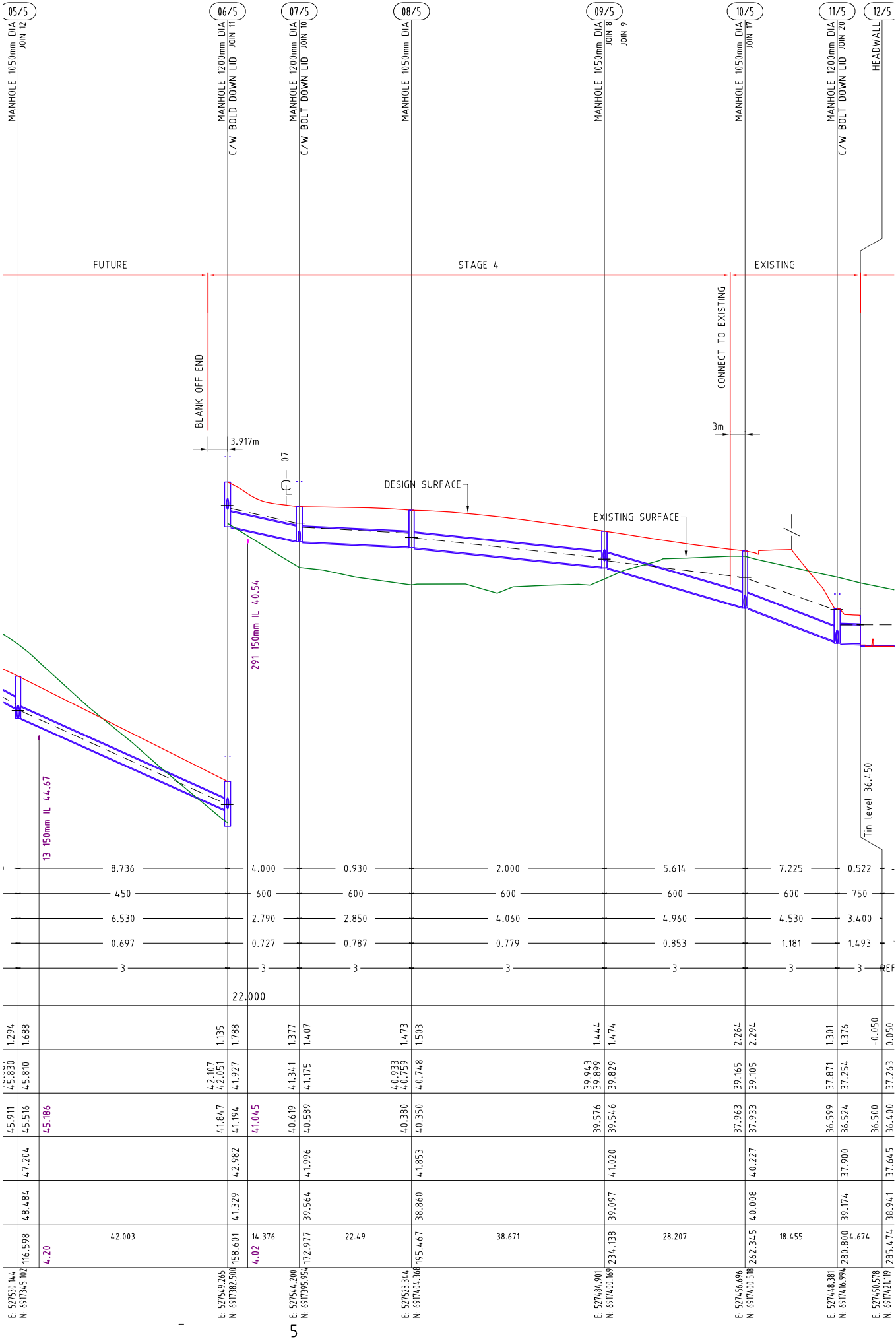
PIPE INVERT LEVELS

DESIGN SURFACE LEVELS

EXISTING SURFACE LEVELS

CHAINAGE

DRAINAGE LINE



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.

PIPE GRADE (%)

PIPE DIAMETER (mm)

VELOCITY (m/s)

PIPE FLOW (m3/s)

PIPE CLASS

DATUM R.L.

DEPTH TO INVERT

HYDRAULIC GRADE LINE

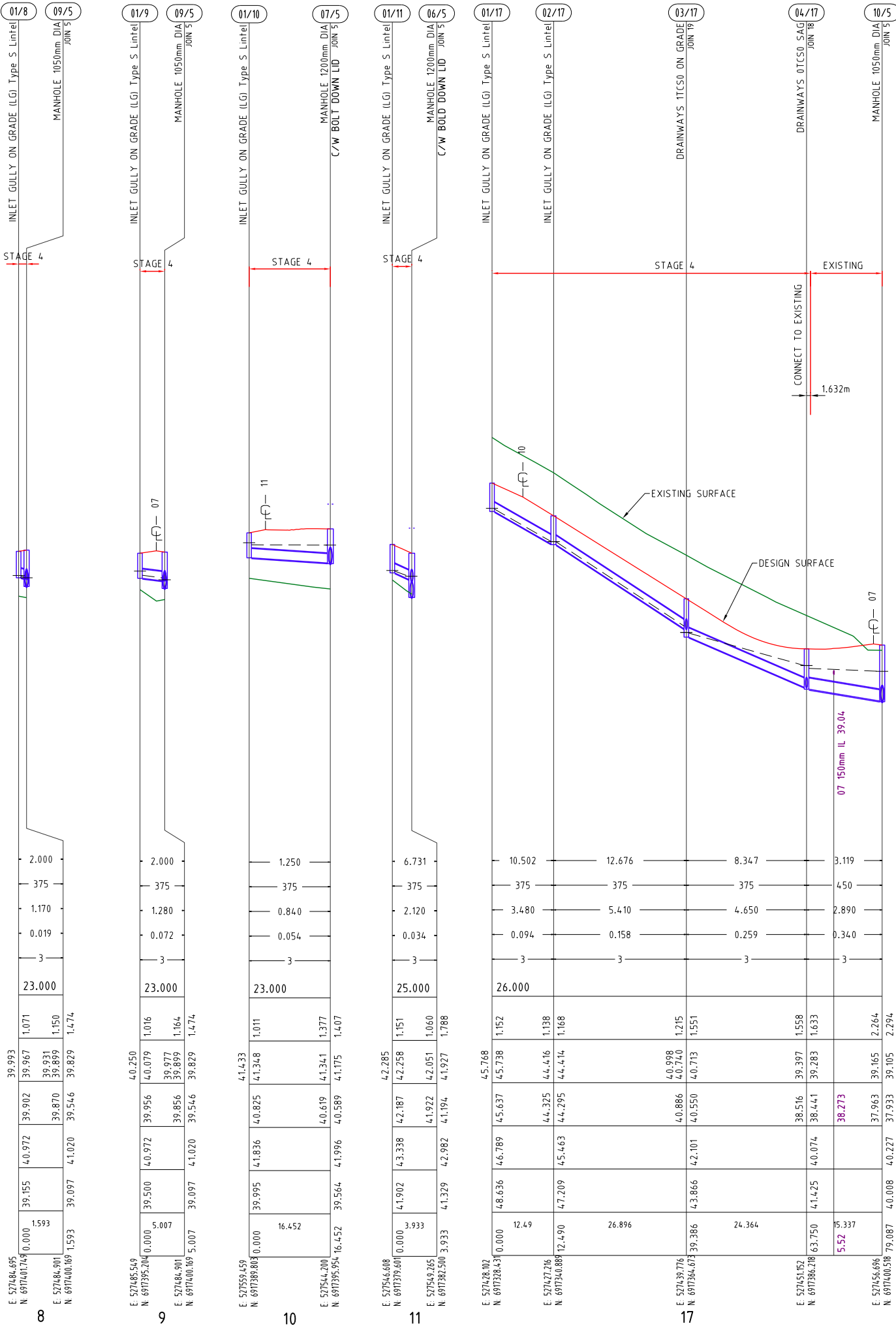
PIPE INVERT LEVELS

DESIGN SURFACE LEVELS

EXISTING SURFACE LEVELS

CHAINAGE

DRAINAGE LINE



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW/2024/523

Dated: 11 September 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

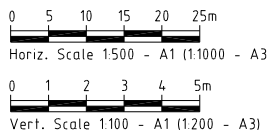
COURTNEY DR
UPPER COOMERA

STAGE 04

RP DESCRIPTION

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

CLIENT



REV	DATE	DESCRIPTION	INT
A	27-04-24	COUNCIL ISSUE	BL

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ASSOCIATED CONSULTANTS



DRAWING TITLE

STORMWATER
PROFILES
SHEET 02



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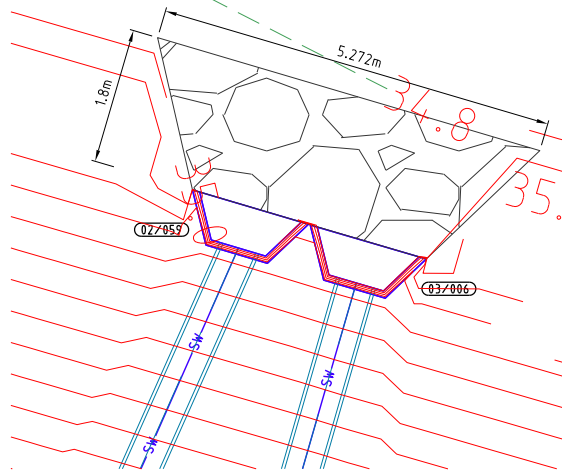
Gold Coast Office:
Suite 9, 19 Short St
Southport QLD 4215

DESIGNED	RB	DRAWN	BL
APPROVED	AK	PE	Q706

DRAWING NUMBER	REV
41901-04-621	A

SCOUR PROTECTION DESIGN		
HW 02/059 & 03/006	SIZE	2x450mm
VELOCITY = 3.04m/s		
LENGTH = 5.272m d50 300mm		
SCOUR PROTECTION TYPE		
= RENO MATTRESS 170mm THICK		

CALCULATIONS UNDERTAKEN USING PROPRIETARY PRODUCT DATA

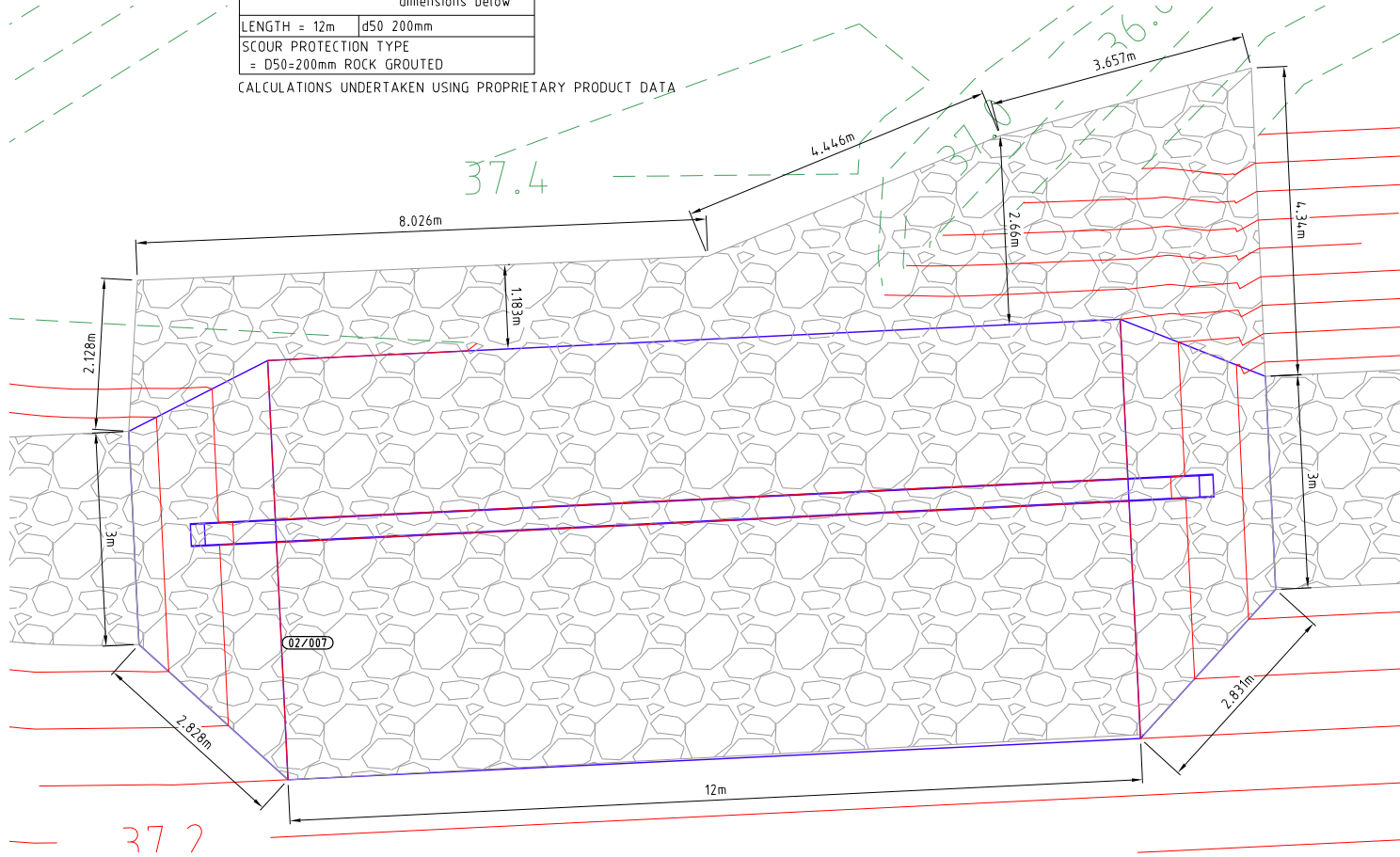


HEADWALL SCOUR DETAIL

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

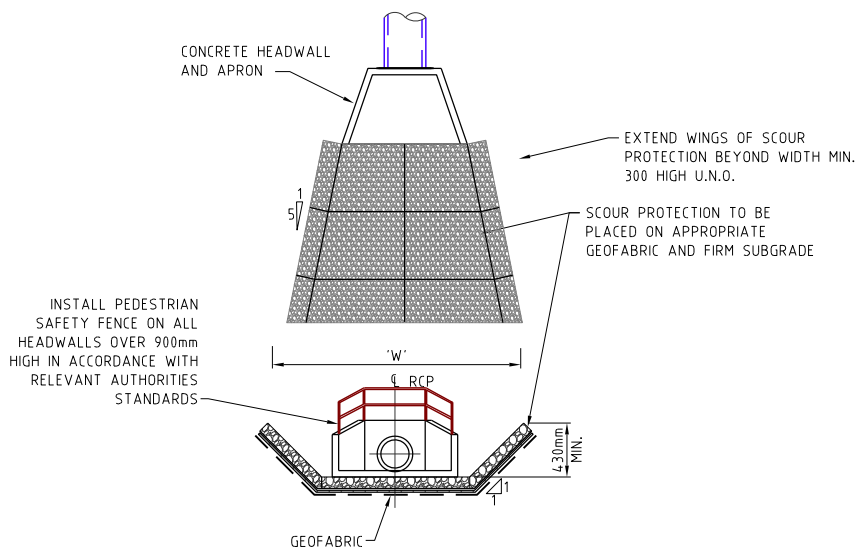
SCOUR PROTECTION DESIGN		
WEIR 02/007	SIZE VARIES-Refer	dimensions below
LENGTH = 12m d50 200mm		
SCOUR PROTECTION TYPE		
= D50=200mm ROCK GROUTED		

CALCULATIONS UNDERTAKEN USING PROPRIETARY PRODUCT DATA



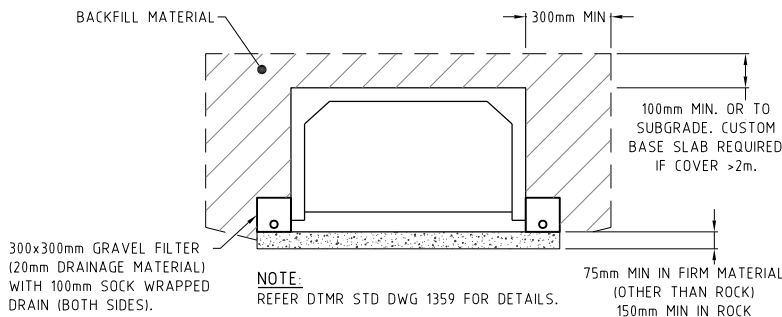
WEIR SCOUR DETAIL

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



TYPICAL OUTLET AND SCOUR PROTECTION DETAIL

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



CULVERT DRAIN

SCALE NTS

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW/2024/523

Dated: 11 September 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 04

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728

COURTNEY DRIVE

LOCALITY OF UPPER COOMERA

LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT



0 1 2 3 4 5m

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

0 0.5 1.0 1.5 2.0 2.5m

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

REV	DATE	DESCRIPTION	INT
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ASSOCIATED CONSULTANTS



DRAWING TITLE

STORMWATER
OUTLETS AND
TYPICAL DETAILS
SHEET 01



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DESIGNED RB DRAWN BL

APPROVED *a.k.m.* RPEQ 4706 DATE 27-04-24

DRAWING NUMBER REV

41901-04-640

A

LEGEND

- 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
- DRAINAGE PIT & LINE NO.
- CONCRETE

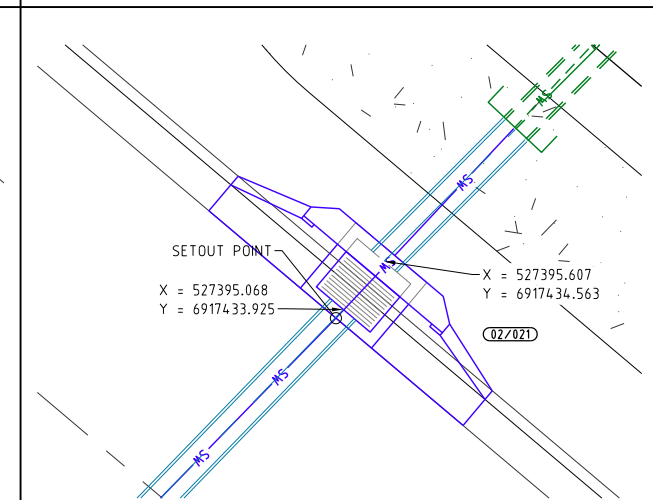
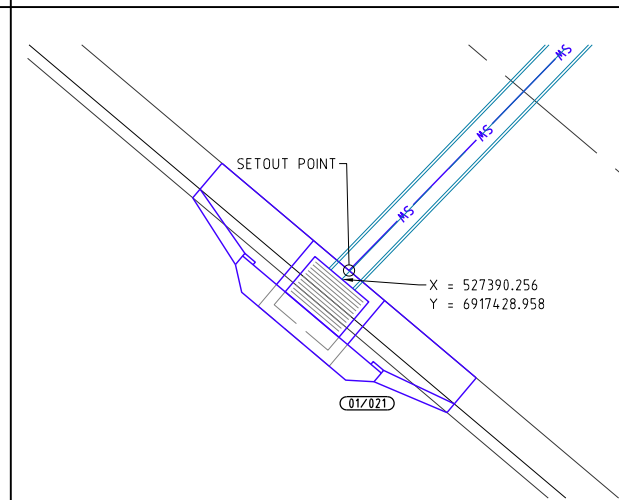
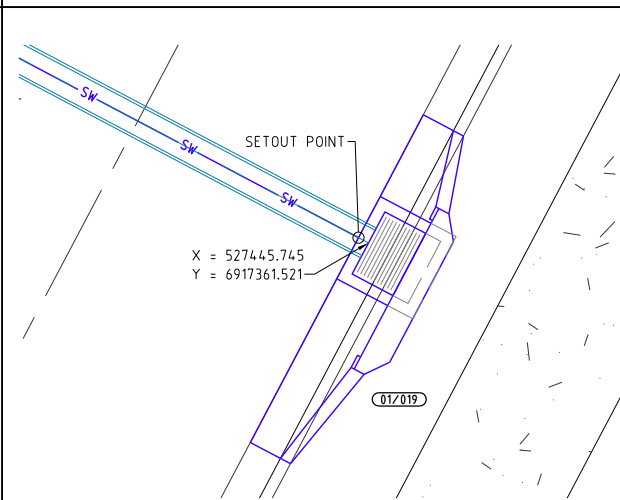
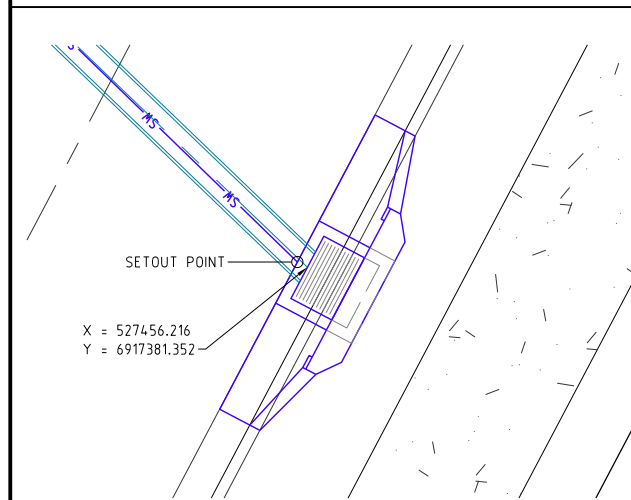
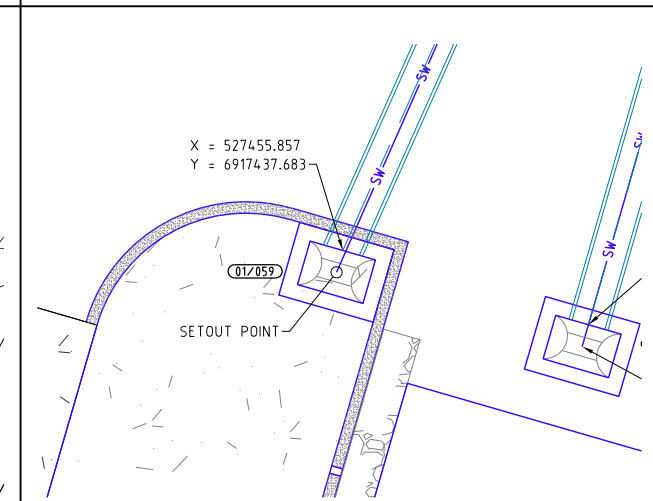
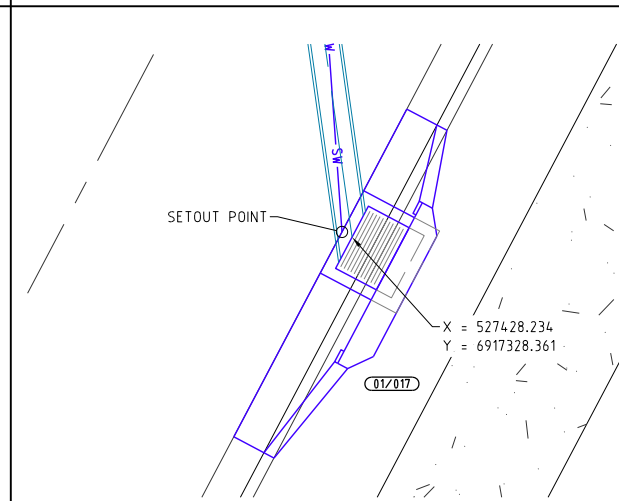
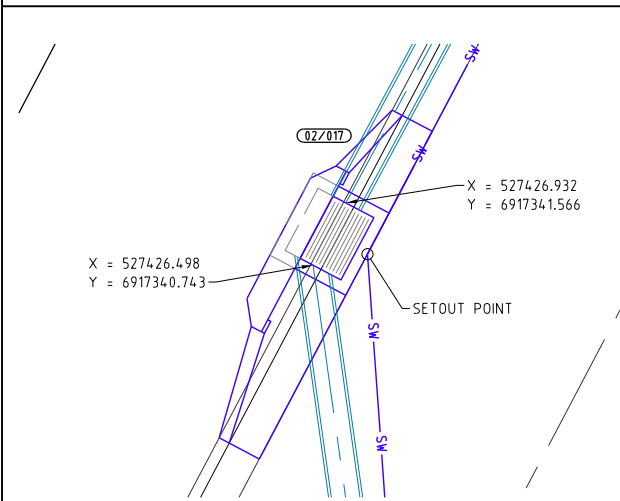
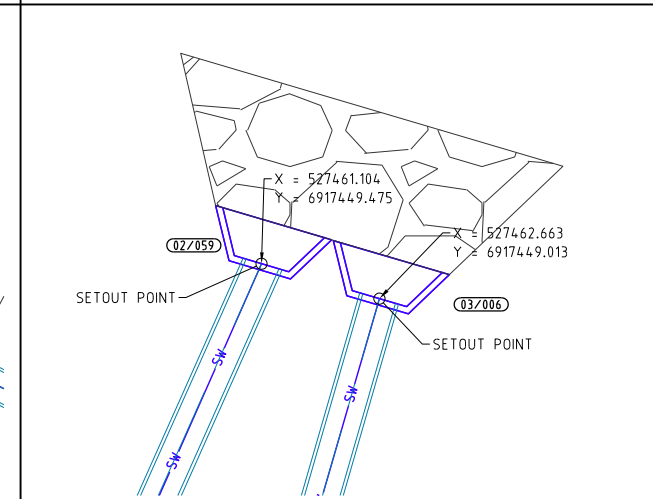
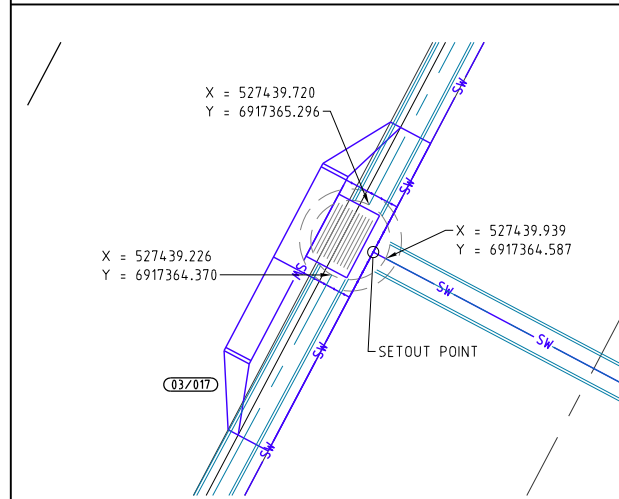
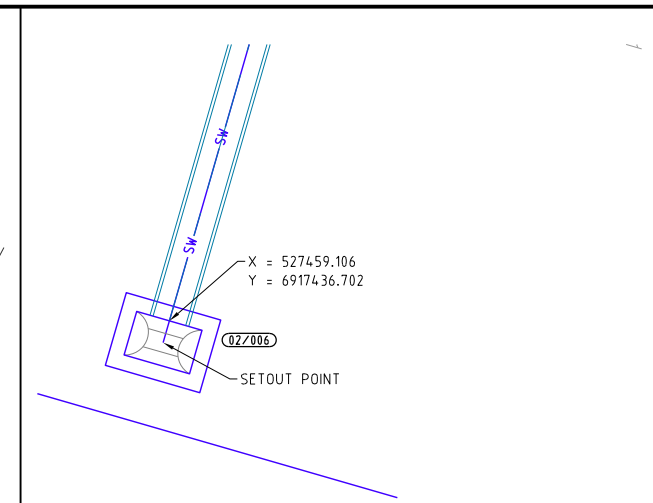
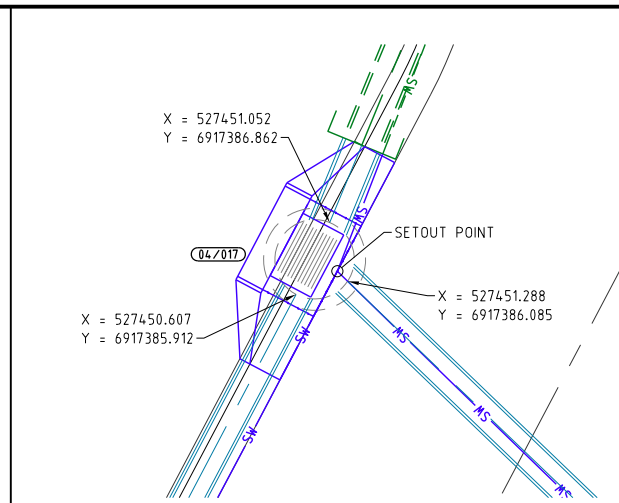
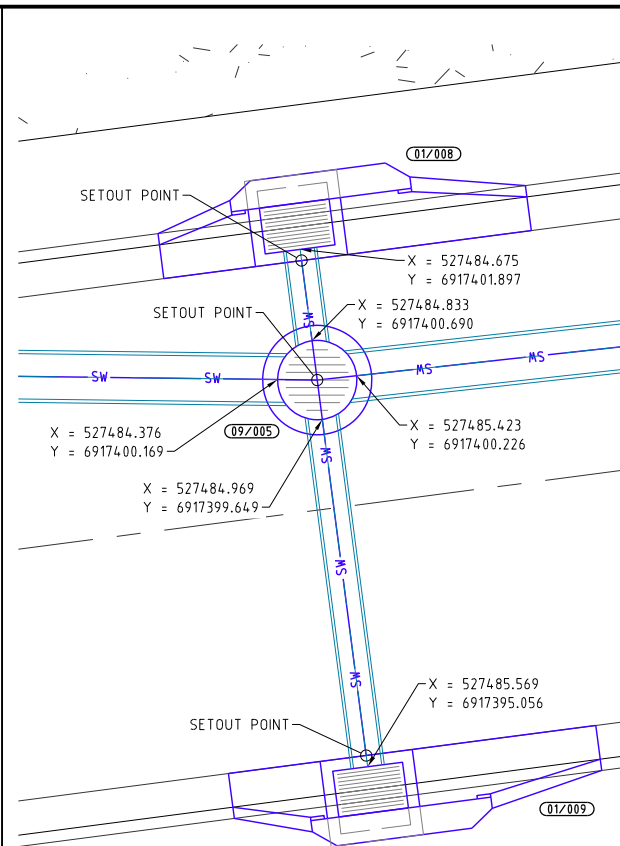
NOTE
THE STORMWATER PIT IMAGE ARE DIAGRAMATIC ONLY & THE CONTRACTOR MUST ENSURE THEY MATCH NEATLY INTO THE WORKS

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW/2024/523

Dated: 11 September 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 04

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728

COURTNEY DRIVE

LOCALITY OF UPPER COOMERA
LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT



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

REV	DATE	DESCRIPTION	INT
A	27-04-24	COUNCIL ISSUE	BL

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ASSOCIATED CONSULTANTS



DRAWING TITLE

STORMWATER
PIT DETAILS
SHEET 01



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Suite 9, 19 Short St
Southport QLD 4215

DESIGNED	RB	DRAWN	BL
APPROVED	AK	REQ	4706

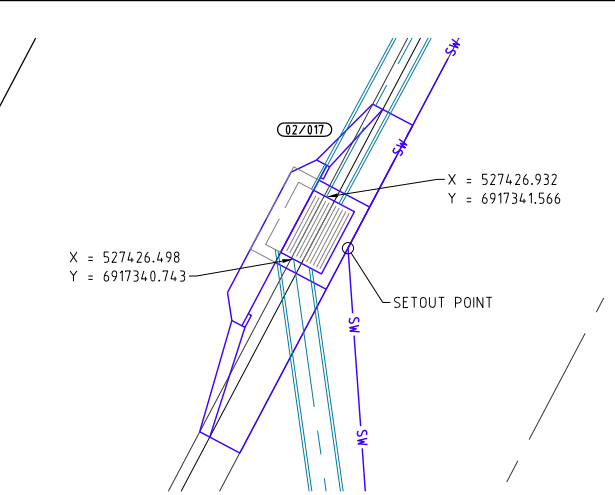
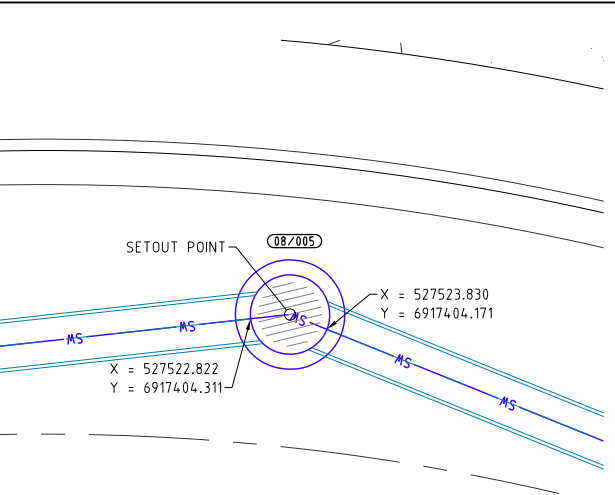
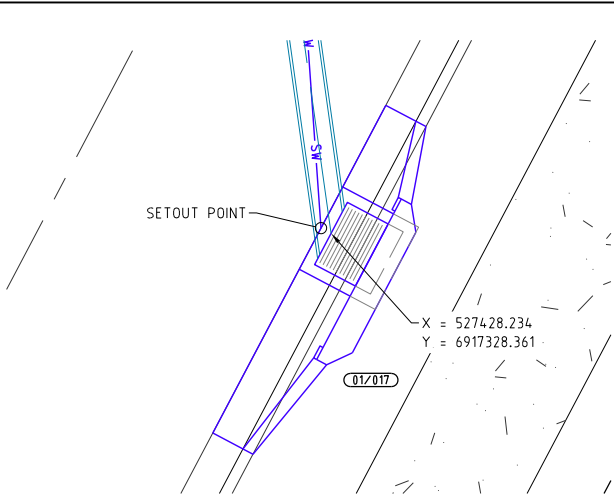
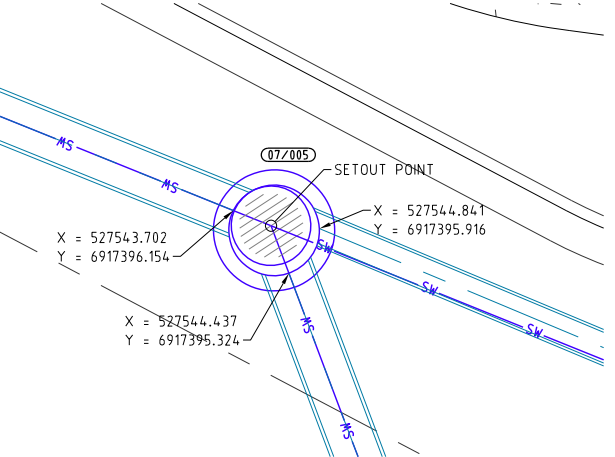
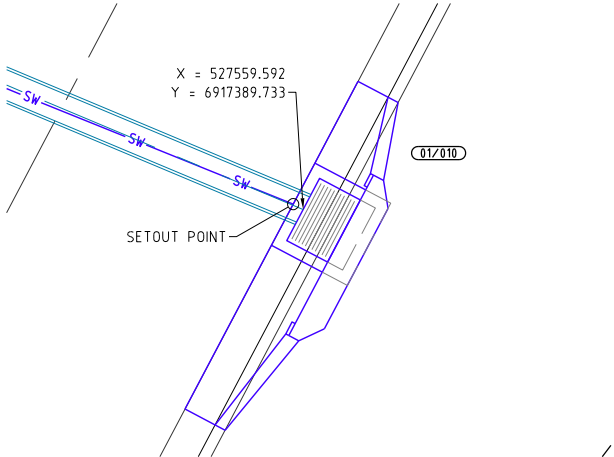
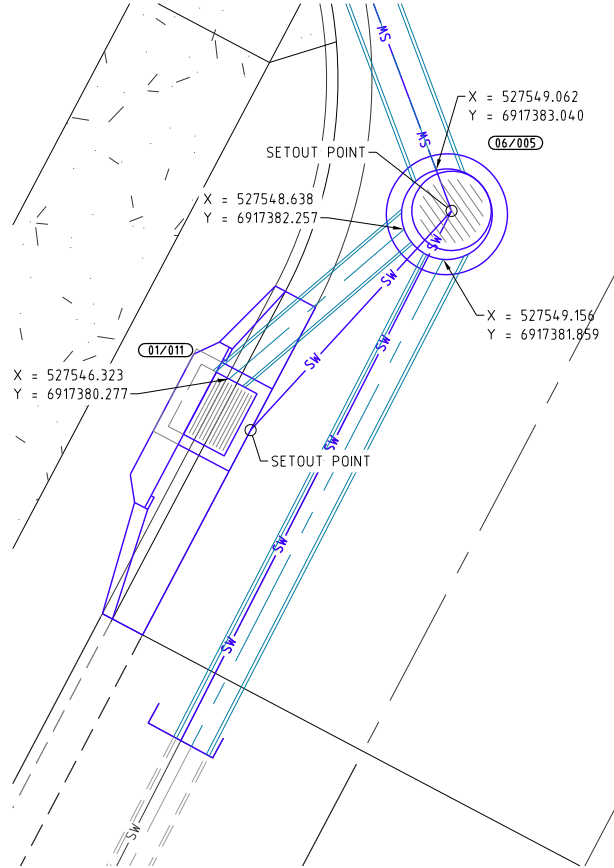
DRAWING NUMBER
41901-04-650

REV
A

LEGEND

- EXISTING KERB (INVERT)
— EXISTING KERB (LIP & BACK)
— EXISTING FOOTPATH
— EXISTING PROPERTY LINE
— SW — SW — EXISTING STORMWATER
— RW — RW — EXISTING ROOFWATER
— EXISTING STORMWATER PIPES
— EXISTING ROOFWATER PIPES
— FUTURE KERB (INVERT)
— FUTURE KERB (LIP & BACK)
— FUTURE FOOTPATH
— FUTURE PROPERTY LINE
— SW — FUTURE STORMWATER
— RW — 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
— SW — PROPOSED STORMWATER
— RW — PROPOSED ROOFWATER
— PROPOSED STORMWATER PIPES
— PROPOSED ROOFWATER PIPES
● MANHOLE
■ FIELD INLET
K (ON GRADE) PIT
K (SAG) PIT
V 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



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No.: OPW/2024/523

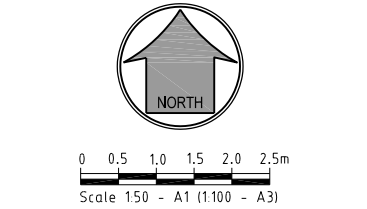
Dated: 11 September 2024

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 04
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	27-04-24	COUNCIL ISSUE	BL

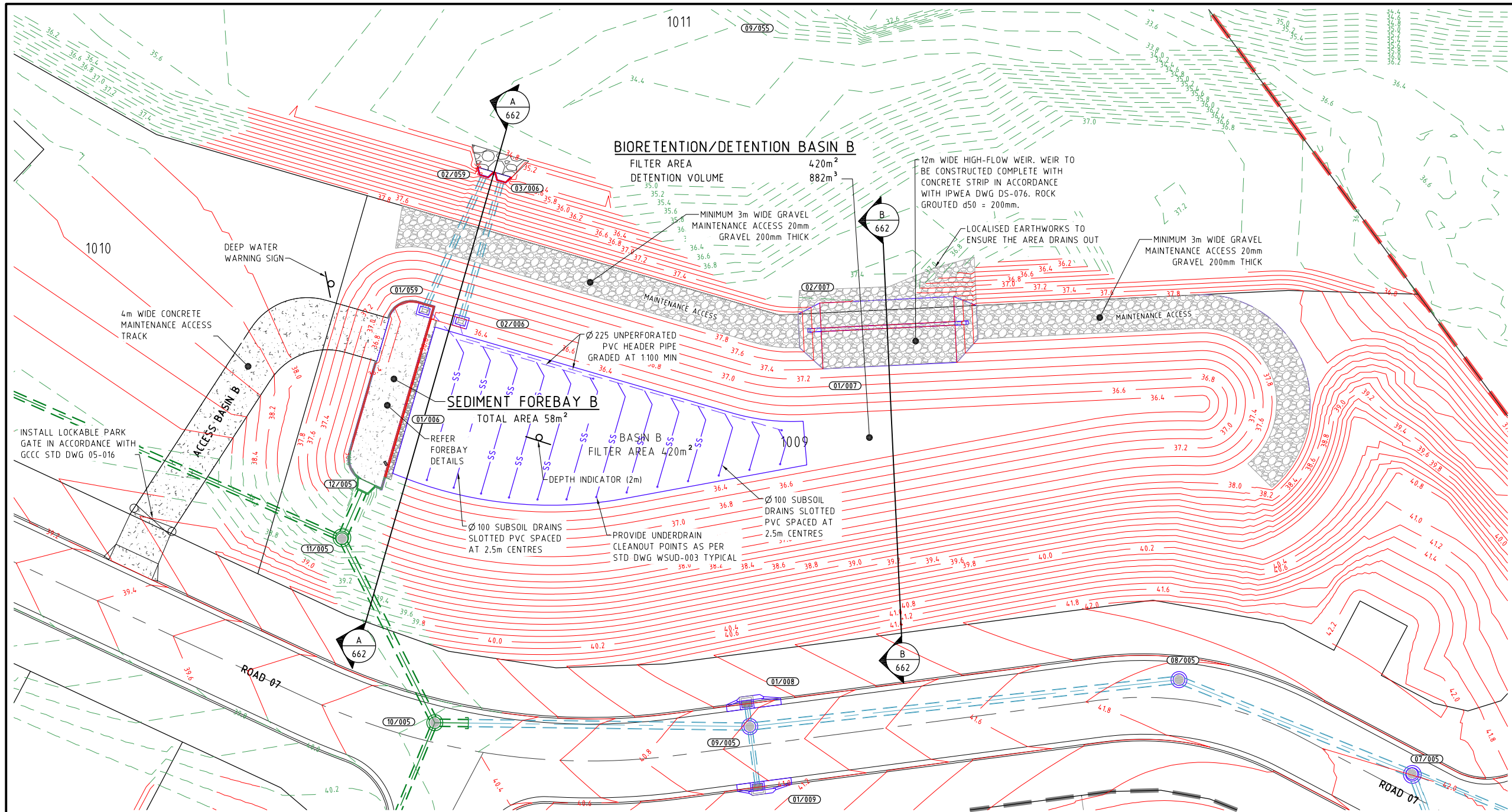
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ASSOCIATED CONSULTANTS
BIOME
WATER AND ENVIRONMENTAL CONSULTING
Robin Russell
& ASSOCIATES PTY. LTD.
BENNETT • BENNETT

DRAWING TITLE
**STORMWATER
PIT DETAILS
SHEET 02**

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

DESIGNED RB	DRAWN BL
APPROVED <i>a.k.m.</i>	DATE 27-04-24
DRAWING NUMBER 41901-04-651	REV A



BASIN CONSTRUCTION

- 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.
- FOR THE ENTIRE EMBANKMENT AREA STRIPPING OF VEGETATION & ANY HIGHLY ORGANIC TOP SOILS & ANY SOFT CLAYS TO DEPTHS OF APPROXIMATELY 0.3m IS REQUIRED.
- THE STRIPPED SURFACE IS TO BE INSPECTED & TESTED BY A GEOTECHNICAL ENGINEER.
- 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.
- 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).
- 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.

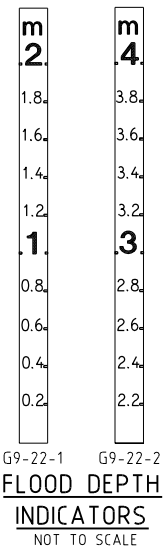
WALL DETAILS CONTAINED WITH THIS SET ARE INDICATIVE ONLY. ALL RETAINING WALLS AND FOOTINGS ARE SUBJECT TO DETAILED DESIGN AND CERTIFICATION BY AN APPROPRIATELY QUALIFIED R.P.E.Q CERTIFIED ENGINEER.

LEGEND

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

BASIN PLAN

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



WARNING SIGN
NOT TO SCALE

BIO FILTRATION BASIN NOTES

- BIO FILTRATION BASIN TO BE EXCAVATED TO LEVEL BELOW FILTRATION MEDIA
- UNUSABLE MATERIAL TO BE REMOVED OFF SITE AND BASIN TRIMMED TO FINAL PROFILE PRIOR TO PLACEMENT OF FILTER MEDIA AT 80% COMPLETION OF HOUSING

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW/2024/523

Dated: 11 September 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 04

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

CLIENT



0 0.5 1.0 1.5 2.0 2.5m
Scale 150 - A1 (1:100 - A3)
0 2 4 6 8 10m
Scale 1:200 - A1 (1:400 - A3)

REV	DATE	DESCRIPTION	INT
A	27-04-24	COUNCIL ISSUE	BL

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ASSOCIATED CONSULTANTS



DRAWING TITLE

STORMWATER
BASIN
PLAN AND DETAILS
SHEET 01



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DESIGNED	RB	DRAWN	BL
APPROVED	AK	PEQ4706	DATE 27-04-24

DRAWING NUMBER
41901-04-660

REV
A

DEEP WATER
WARNING SIGN

38.0

37.8

37.6

37.4

37.2

37.0

36.8

36.4

BLOCK WALL
300mm HIGH

150 THICK CONCRETE BASE, SL62
REINFORCING, 50 TOP COVER,
0.5% FALL TO SLOTS MIN.
REFER LANDSCAPE PLANS FOR
SURFACE FINISH.
58.2m² SEDIMENT FOREBAY
(IPWEAQ WSUD-005 OR SIMILAR)

SEDIMENT FOREBAY B
TOTAL AREA 58m²

100mm VERTICAL SLOTS
DRAINING TO BIORETENTION
AREA AT 2m SPACINGS.

ROCK APRON 0.5m WIDE D50
Ø 100-150mm 0.27m THICK

400x200
BLOCK WALL
400mm HIGH

BLOCK WALL
300mm HIGH

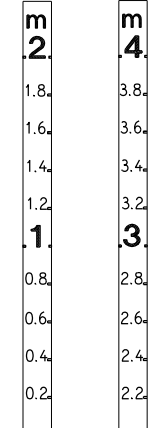
400mm HIGH
FOREBAY WALL

FOREBAY B DETAIL

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

LEGEND

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



**FLOOD DEPTH
INDICATORS**
NOT TO SCALE



WARNING SIGN
NOT TO SCALE

PLANS AND DOCUMENTS referred to in the
DEVELOPMENT APPROVAL

Application No.: OPW/2024/523

Dated: 11 September 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 04

RP DESCRIPTION

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

CLIENT



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

REV	DATE	DESCRIPTION	INT
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ASSOCIATED CONSULTANTS



DRAWING TITLE

**STORMWATER
BASIN
FOREBAY DETAILS
SHEET 01**



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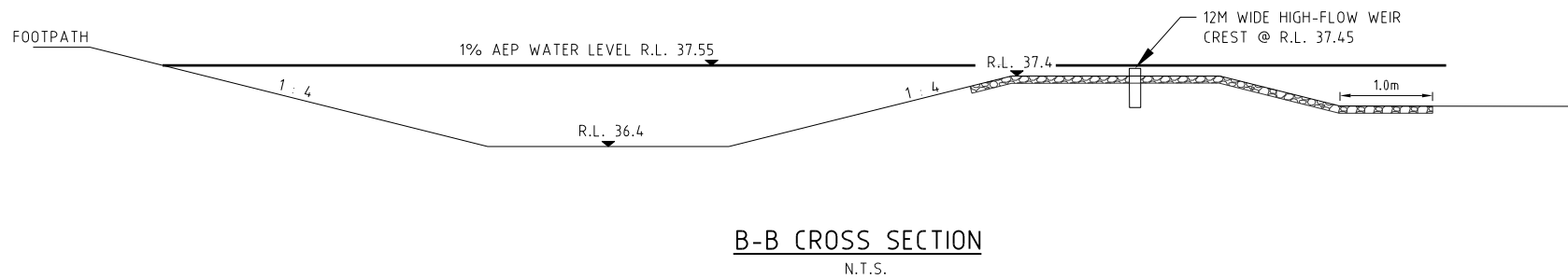
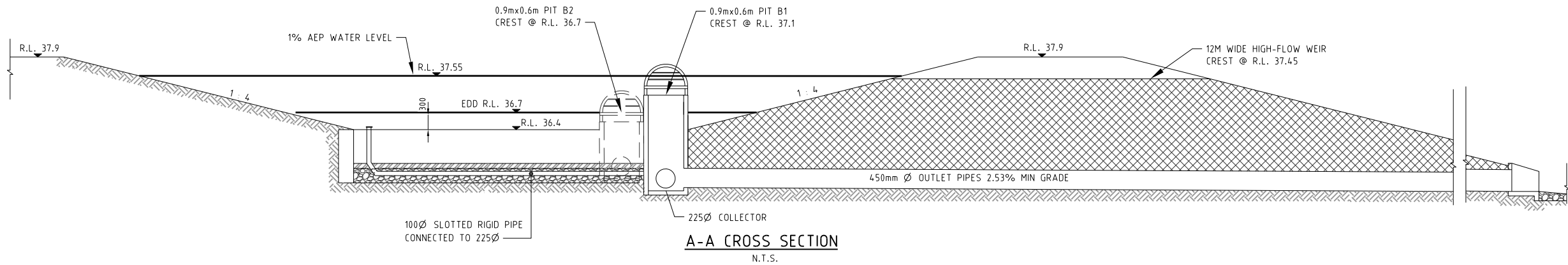
DESIGNED RB DRAWN BL

APPROVED *[Signature]* RPEQ 706 DATE 27-04-24

DRAWING NUMBER REV

41901-04-661 A





PLANS AND DOCUMENTS referred to in the
DEVELOPMENT APPROVAL

Application No: OPW/2024/523

Dated: 11 September 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 04

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728

COURTNEY DRIVE

LOCALITY OF UPPER COOMERA

LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT



REV	DATE	DESCRIPTION	INT
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STORMWATER
BASIN
SECTIONS
SHEET 01

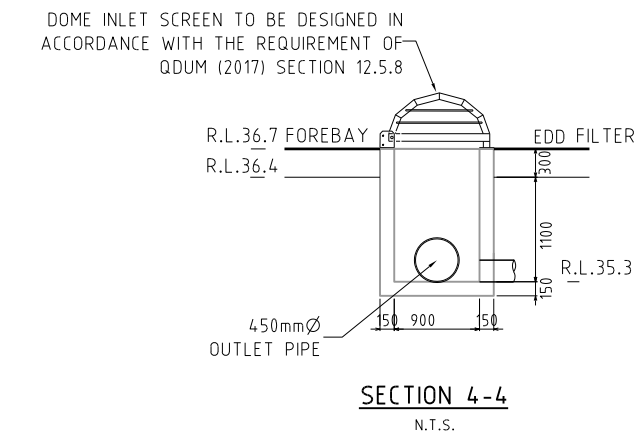
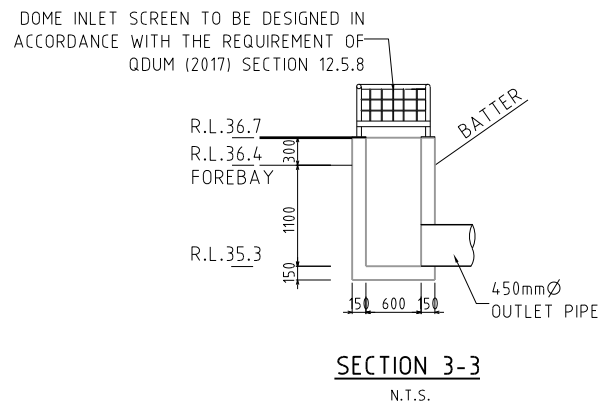
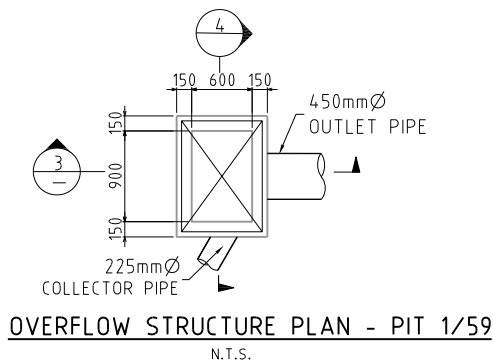
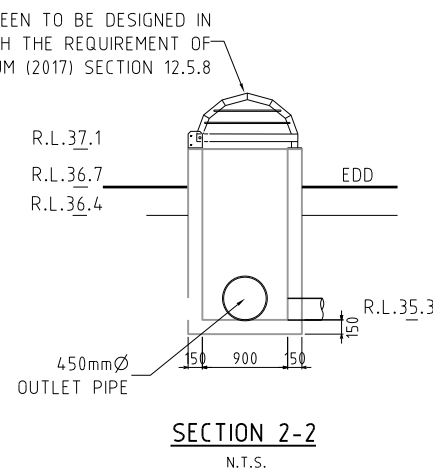
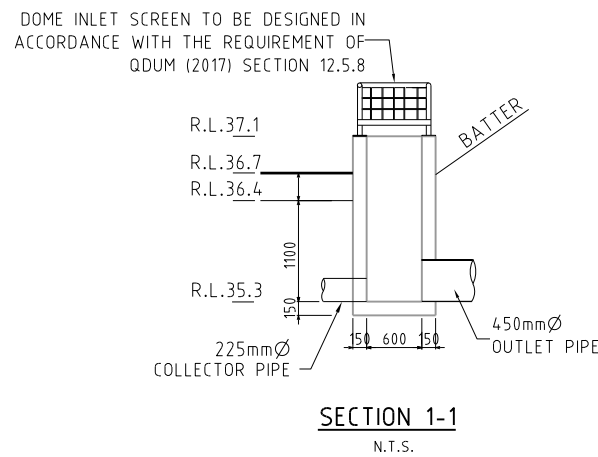
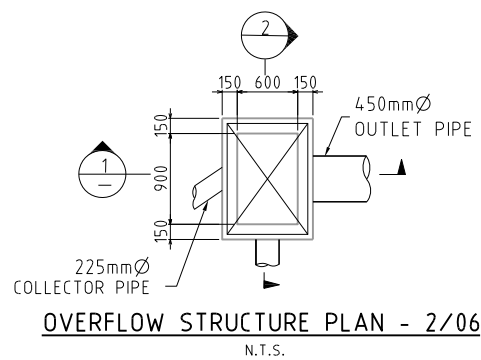
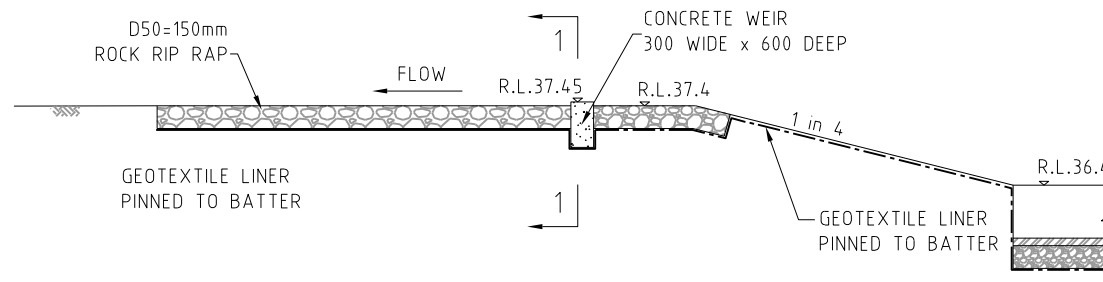
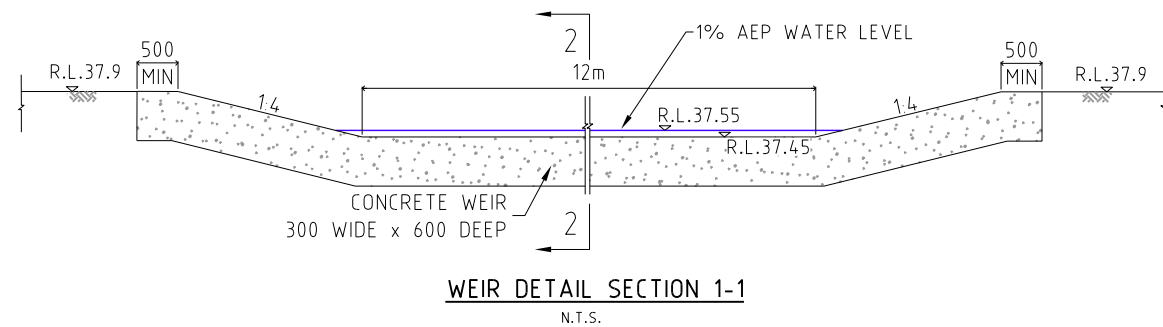
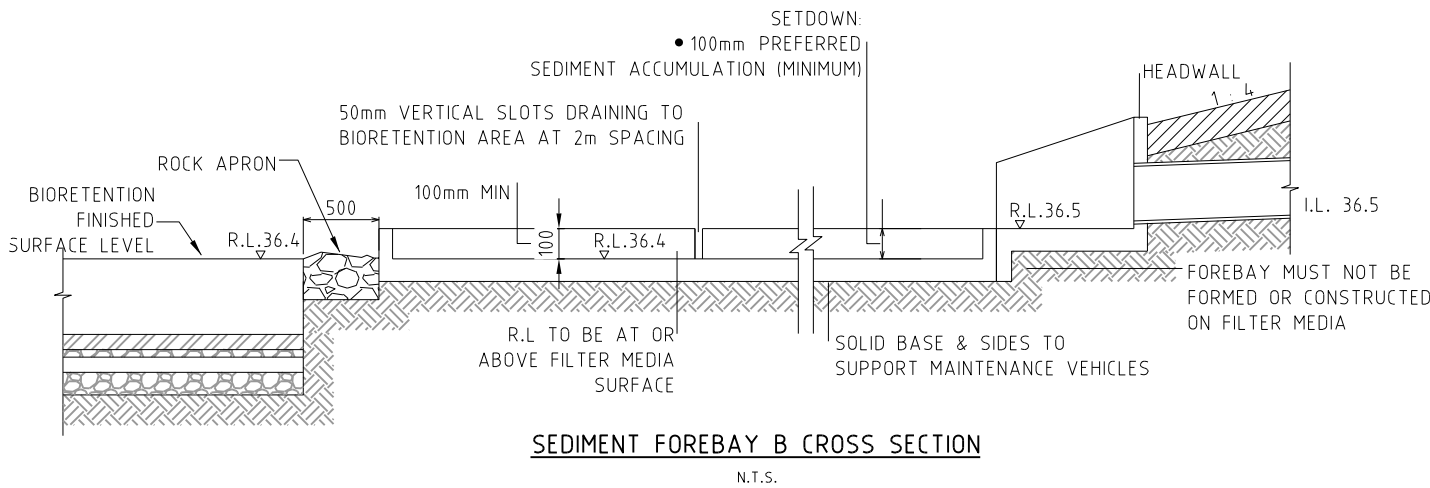


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APPROVED	DATE	DATE	DATE

DRAWING NUMBER
41901-04-662

REV
A



OUTLET DETAILS

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW/2024/523

Dated: 11 September 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 04

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728

COURTNEY DRIVE

LOCALITY OF UPPER COOMERA

LOCAL AUTHORITY - GOLD COAST CITY COUNCIL

CLIENT



REV	DATE	DESCRIPTION	INT
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DRAWING TITLE

STORMWATER
BASIN
SECTIONS
SHEET 01



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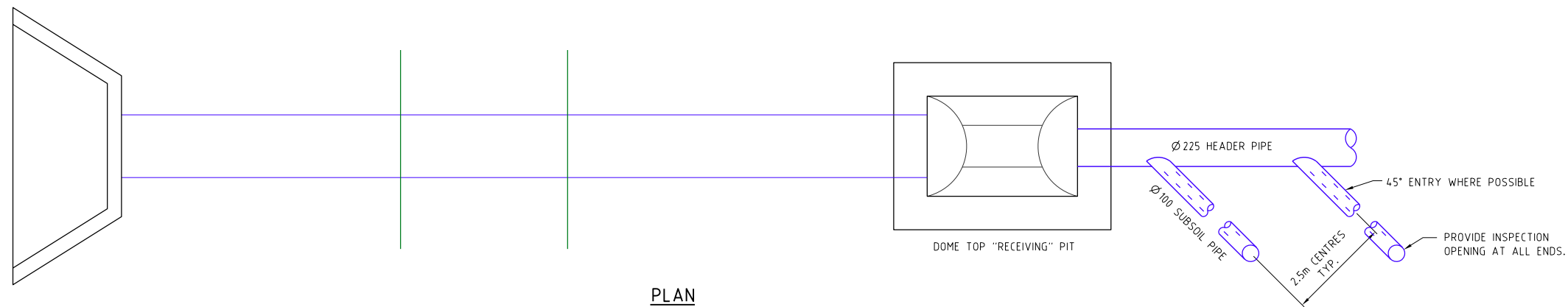
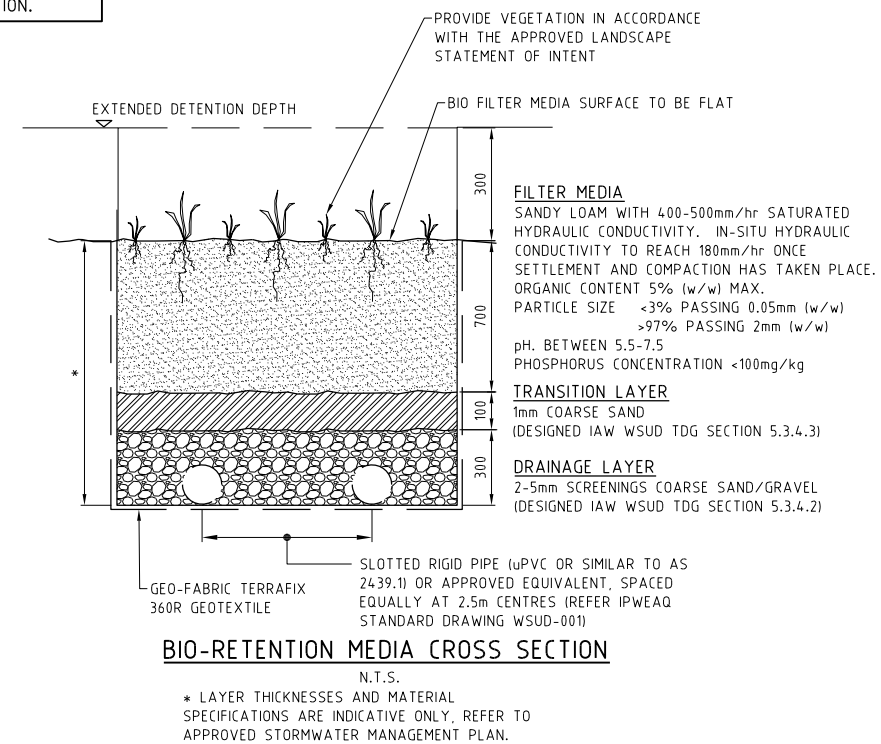
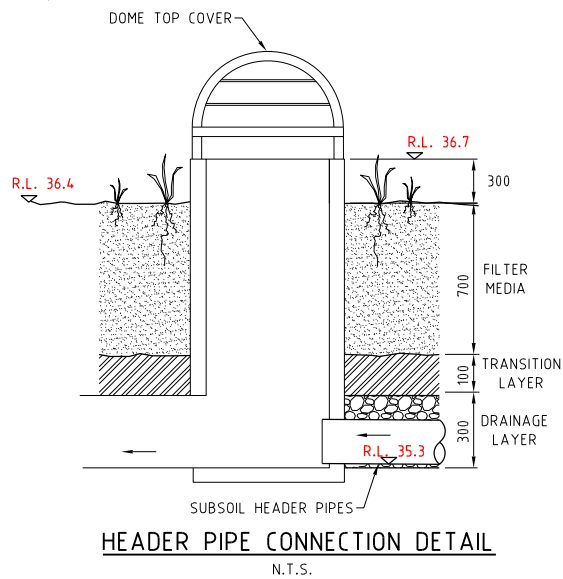
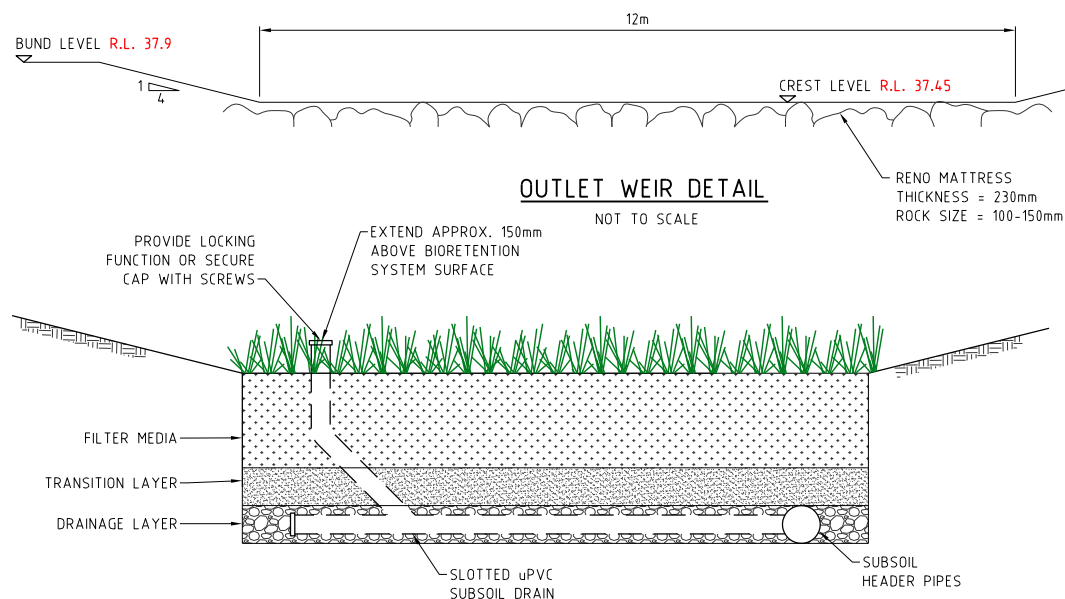
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APPROVED A.K. RPEQ4706 DATE 27-04-24

DRAWING NUMBER REV

41901-04-663

A



PLANS AND DOCUMENTS referred to in the
DEVELOPMENT APPROVAL

Application No: OPW/2024/523

Dated: 11 September 2024

Development shall comply with the
conditions of approval as detailed in the
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Scheme, Local Laws and Planning Policies

PROJECT NAME

COURTNEY DR
UPPER COOMERA

STAGE 04

RP DESCRIPTION

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

CLIENT



REV	DATE	DESCRIPTION	INT
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STORMWATER
BASIN
DETAILS
SHEET 01



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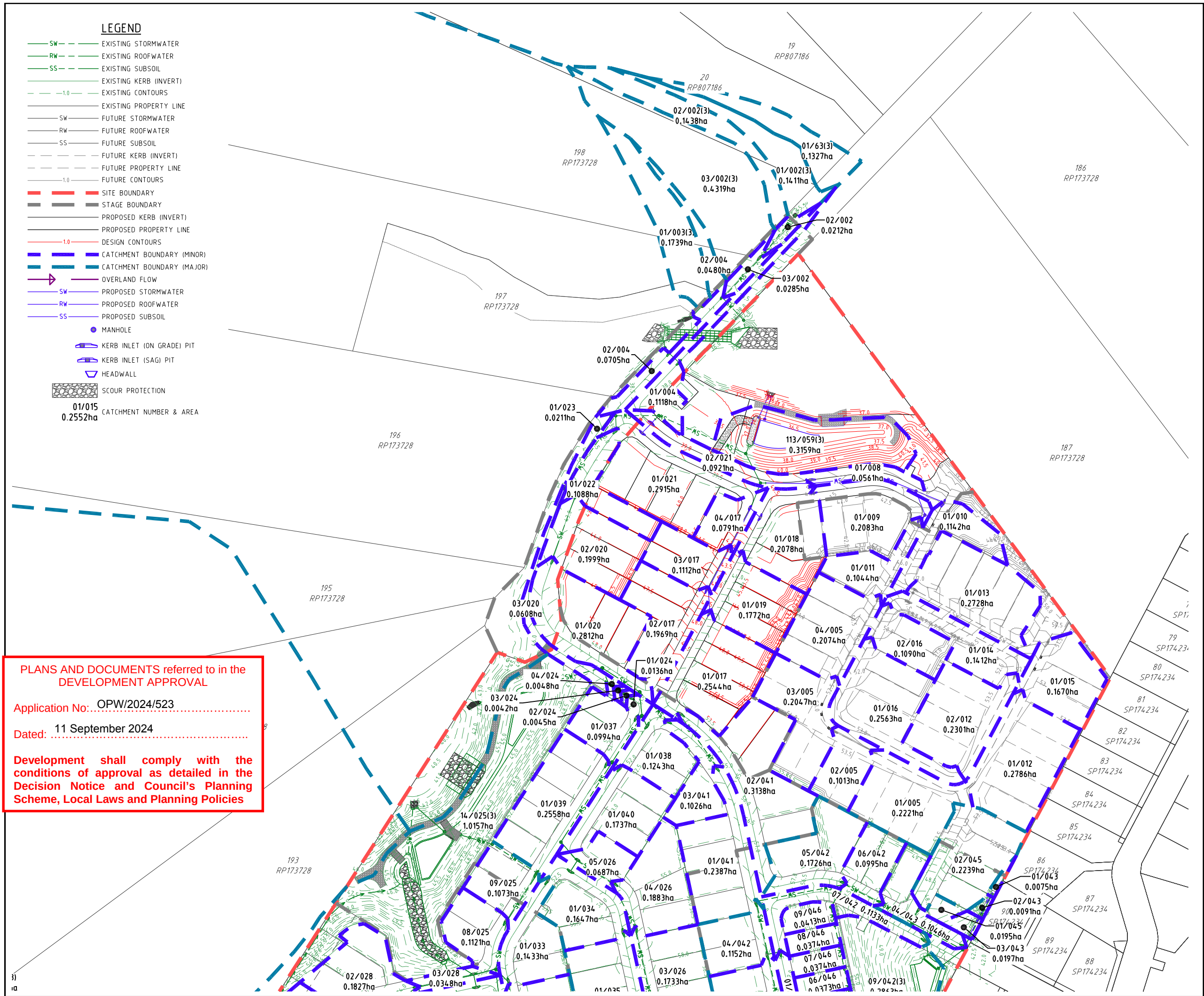
Gold Coast Office
Suite 9, 19 Short St
Southport QLD 4215

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APPROVED	DATE	REV
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DRAWING NUMBER
41901-04-665

REV
A



PROJECT NAME
**COURTNEY DR
UPPER COOMERA**

STAGE 04

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

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

REV	DATE	DESCRIPTION	INT
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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**

MORTONS
urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

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DESIGNED	RB	DRAWN	BL
APPROVED	AK	REQ 4706	DATE 27-04-24
DRAWING NUMBER 41901-04-670		REV A	

CALCULATION TABLES-MINOR 2YR ARI

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

NOTE: NEGATIVE FLOW VALUES INDICATE REVERSE FLOWS		CATCHMENT AREA			RAINFALL VOLUME*		RAINFALL Coef.		CATCHMENT FLOW			APPROACH FLOW				FLOW AT PIT				PIT		HGL		PIPE		HEADLOSSES				CAPACITY		VELOCITY		NODE
FROM	TO	A1 HA	A2 HA	A3 HA	CRITICAL STORM	INTENSITY MMHR	10 YR Storm	CURRENT Storm	A1 HA	A2 HA	A3 HA	CRITICAL ARI MIN.	GRADE %	LI	WDTH	DxV	LI	L/S	DxV	NODE	GRADE %	GRATE RL	PIT RL	PIPE US RL	D/S RL	GRADE %	PIPE FLOW M3/S	COEFFICIENT Ku	HEADLOSS Kw	COEFFICIENT Ku	HEADLOSS Kw	RATIO	MS	
01/5	02/5				0.222		0.877	0.830	0.073			60	1.0	73	1.07	0.00	72	0	0.00	02/5	1.000	53.037	52.15	52.09	51.77	1.30	0.07	9.7	0.0	0.1	0.0	0.28	1.42	01/5
02/5	03/5				0.101		0.877	0.830	0.033			60	1.0	33	1.07	0.00	33	0	0.00	03/5	1.000	52.886	51.77	51.76	51.33	1.49	0.11	1.9	0.0	0.0	0.0	0.38	2.08	02/5
03/5	04/5				0.205		0.877	0.830	0.067			60	1.0	67	0.00	0.00	67	0	0.00	04/5	1.000	52.252	51.26	51.25	47.23	7.82	0.17	2.0	0.0	0.0	0.0	0.27	4.8	03/5
04/5	05/5				0.207		0.877	0.830	0.068			60	1.0	68	0.00	0.00	68	0	0.00	01/11	1.000	48.247	47.23	47.20	46.08	10.21	0.36	1.3	0.0	0.0	0.0	0.3	5.4	04/5
05/5	06/5											25	1.0	0			0				1.000	47.204	45.83	45.81	42.11	8.82	0.70	1.0	0.0	0.0	0.0	0.64	6.53	05/5
06/5	07/5											25	1.0	0			0				1.000	42.982	42.05	41.93	41.34	4.08	0.73	2.0	0.0	0.1	0.0	0.46	2.79	06/5
07/5	08/5											25	1.0	0			0				1.000	41.998	41.34	41.17	40.93	1.08	0.79	0.7	0.0	0.2	0.0	1.02	2.85	07/5
08/5	09/5											25	1.0	0			0				1.000	41.853	40.76	40.75	39.94	2.08	0.78	0.4	0.0	0.0	0.0	0.69	4.06	08/5
09/5	10/5											25	1.0	0			0				1.000	41.020	39.90	39.83	39.17	2.35	0.85	0.3	0.0	0.1	0.0	0.45	4.96	09/5
10/5	11/5											25	1.0	0			0				1.000	40.227	39.17	39.11	37.87	6.69	1.18	1.1	0.0	0.4	0.0	0.54	4.53	10/5
11/5	12/5											25	1.0	0			0				1.000	37.900	37.87	37.25	37.26	-0.19	1.49	1.2	0.0	0.6	0.0	1.43	3.4	11/5
12/5	01/6											25	1.0	0			0				1.000	37.645	37.26	37.26	37.26	0.00	1.49	0.0	0.0	0.0	0.0			12/5
01/6	02/6											60	1.0	66			66				1.000	37.900	37.26											01/6
01/6	02/6											60	1.0	66			66				1.000	37.900	37.26	37.26	37.26	0.00	0.33	0.0	0.0	0.0	0.0			01/6
02/6	03/6											60	1.0	329	0.00	0.00	329	0	0.00	08/55	1.000	37.100	36.01	35.50	35.24	2.16	0.33	8.2	0.0	0.5	0.0	0.56	2.52	02/6
03/6	08/55											25	1.0	0			0				1.000	35.740	35.10	35.10	33.29	5.74	0.33	0.0	0.0	0.0	0.0	0.05	0.63	03/6
08/55	09/55											25	1.0	0			0				1.000	34.000	33.29											08/55
01/6	02/6											60	1.0	66			66				1.000	37.900	37.26	37.45	37.45	0.00	0.00	0.0	0.0	0.0	0.0			01/6
01/7	02/7											25	1.0	0			0				1.000	37.900	37.45	37.45	37.45	0.00	0.00	0.0	0.0	0.0	0.0	0	0	01/7
02/7	08/55											25	1.0	0			0				1.000	37.900	37.45	37.45	33.29	9.17	0.00	0.0	0.0	0.0	0.0	0	0	02/7
08/55	09/55											25	1.0	0			0				1.000	34.000	33.29											08/55
01/6	09/5				0.056		90	61.3	0.877	0.830	0.018	60	2.7	18	0.00	0.00	18	0	0.00	02/21	2.725	40.972	39.99	39.97	39.93	2.26	0.02	7.0	0.0	0.0	0.0	0.06	1.17	01/6
09/5	10/5											25	1.0	0			0				1.000	41.020	39.90											09/5
01/6	09/5				0.208		90	61.3	0.877	0.830	0.069	60	2.7	69	0.00	0.00	69	0	0.00	04/17	2.725	40.972	40.25	40.08	39.98	2.04	0.07	9.7	0.0	0.2	0.0	0.22	1.28	01/6
09/5	10/5											25	1.0	0			0				1.000	41.020	39.90											09/5
01/17	02/17				0.254		90	61.3	0.877	0.830	0.084	60	1.0	107	1.25	0.01	94	10	0.01	01/19	1.000	46.789	45.77	45.74	44.42	10.58	0.09	9.1	0.0	0.0	0.0	0.13	3.48	01/17
02/17	03/17				0.197		90	61.3	0.877	0.830	0.065	60	1.0	65	0.00	0.00	65	0	0.00	03/17	1.000	45.463	44.42	44.41	41.00	12.70	0.16	2.0	0.0	0.0	0.0	0.19	5.41	02/17
03/17	04/17				0.111		90	61.3	0.877	0.830	0.037	60	1.0	37	0.00	0.00	37	0	0.00	04/17	1.000	42.101	40.74	40.71	39.40	5.40	0.26	1.3	0.0	0.0	0.0	0.39	4.65	03/17
04/17	10/5				0.079		90	61.3	0.877	0.830	0.026	60	1.0	28	1.12	0.00	27	1	0.00	01/21	1.000	40.074	39.40	39.28	39.17	0.77	0.34	0.7	0.0	0.2	0.0	0.52	2.89	04/17
10/5	11/5											25	1.0	0			0				1.000	40.227	39.17											10/5
01/16	04/17				0.208		90	61.3	0.877	0.830	0.069	60	1.0	69	1.25	0.00	66	2	0.00	04/17	1.000	40.151	39.54	39.40	39.40	0.10	0.07	9.7	0.0	0.2	0.0	0.11	2.39	01/16
04/17	10/5				0.079		90	61.3	0.877	0.830	0.026	60	1.0	28	1.12	0.00	27	1	0.00	01/21	1.000	40.074	39.40											04/17
01/19	03/17				0.177		90	61.3	0.877	0.830	0.058	60	1.0	67	0.00	0.00	67	0	0.00	01/18	1.000	42.101	41.27	41.14	41.00	2.11	0.07	9.7	0.0	0.1	0.0	0.21	1.36	01/19
03/17	04/17						90	61.3	0.877	0.830	0.037	60	1.0	37	0.00	0.00	37	0	0.00	04/17	1.000	42.101	40.74											03/17
01/21	02/21				0.291		90	61.3	0.877	0.830	0.096	60	0.6	97	1.47	0.01	86	9	0.01	02/21	0.561	38.583	38.61	38.53	38.48	0.86	0.09	9.7	0.0	0.1	0.0	0.28	1.33	01/21
02/21	05/20				0.092		90	61.3	0.877	0.830	0.030	60	0.7	38	1.07	0.00	38	0	0.00	01/4	0.898	38.482	38.48	38.48	38.41	0.99	0.13	1.7	0.0	0.0	0.0	0.56	1.59	02/21
05/20	11/5											25	1.0	0			0				1.000	38.731	38.41											05/20
01/59	02/59											60	1.0	642	0.00	0.00	642	0	0.00	08/55	1.000	36.700	37.26	35.93	35.45	3.63	0.84	1.9	0.0	1.3	0.0	1.15	4.04	01/59
02/59	08/55											25	1.0	0			0				1.000	35.740	35.15	35.15	33.29	5.85	0.84	0.0	0.0	0.0	0.0	0.09	1.69	02/59
08/55	09/55											25	1.0	0			0				1.000	34.000	33.29											08/55

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW/2024/523

Dated: 11 September 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

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

CALCULATION TABLES-MAJOR 100YR ARI

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				CAPACITY		VELOCITY		NODE	
NODE			A1 HA	A2 HA	A3 HA	CRITICAL STORM	INTENSITY MMHR	10 YR	CURRENT Storm	A1 HA	A2 HA	A3 HA	CRITICAL ARI MIN	GRADE %	L/S	FLOW WIDTH	Dx	CAPTURED L/S	L/S	Dx	NODE	GRADE %	GRATE RL	PIT RL	PIPE U/S RL	D/S RL	GRADE %	PIPE FLOW M3/S	COEFFICIENT	HEADLOSS	Ku	Kw	Ku	Kw	RATIO	MS	NODE
01/5	02/5	INLET GULLY ON GRADE (LG) Type S Lintel	0.222			120	133.6	0.877	0.916	0.124			25	1.0	124	2.47	0.01	71	24	0.02	02/5	1.000	53.037	52.29	52.20	51.87	1.30	0.10	8.8	0.0	0.1	0.0	0.38	1.4	01/5		
02/5	03/5	INLET GULLY ON GRADE (LG) Type S Lintel	0.101			120	133.6	0.877	0.916	0.056			25	1.0	80	1.36	0.01	71	8	0.01	03/5	1.000	52.886	51.87	51.83	51.38	1.54	0.17	2.0	0.0	0.0	0.0	0.62	2.15	02/5		
03/5	04/5	INLET GULLY ON GRADE (LG) Type S Lintel	0.205			120	133.6	0.877	0.916	0.114			25	1.0	118	1.45	0.02	95	23	0.02	04/5	1.000	52.252	51.29	51.29	47.90	6.57	0.26	1.9	0.0	0.0	0.0	0.41	4.26	03/5		
04/5	05/5	INLET GULLY ON GRADE (LG) Type S Lintel	0.207			120	133.6	0.877	0.916	0.115			25	1.0	137	1.50	0.02	106	31	0.02	01/11	1.000	48.247	47.91	47.74	47.06	6.16	0.56	1.1	0.0	0.3	0.0	0.48	5.54	04/5		
05/5	06/5	MANHOLE 1050mm DIA											25	1.0	0			0				1.000	47.204	47.06	46.95	43.16	9.01	0.89	1.0	0.0	0.2	0.0	0.81	6.52	05/5		
06/5	07/5	MANHOLE 1200mm DIA											25	1.0	0			0				1.000	42.982	43.16	42.73	42.05	4.70	0.97	1.5	0.0	0.4	0.0	0.61	3.43	06/5		
07/5	08/5	MANHOLE 1200mm DIA											25	1.0	0			0				1.000	41.996	42.05	41.73	41.31	1.85	0.98	0.9	0.0	0.3	0.0	1.28	3.48	07/5		
08/5	09/5	MANHOLE 1050mm DIA											25	1.0	0			0				1.000	41.853	41.32	41.29	40.62	1.76	0.96	0.4	0.0	0.1	0.0	0.85	4.06	08/5		
09/5	10/5	MANHOLE 1050mm DIA											25	1.0	0			0				1.000	41.020	40.62	40.45	39.99	1.62	1.04	0.2	0.0	0.2	0.0	0.55	4.88	09/5		
10/5	11/5	MANHOLE 1050mm DIA											25	1.0	0			0				1.000	40.227	39.99	39.75	38.29	7.88	1.45	1.1	0.0	0.5	0.0	0.66	5.14	10/5		
11/5	12/5	MANHOLE 1200mm DIA											25	1.0	0			0				1.000	37.900	38.30	37.61	37.54	1.56	1.81	1.0	0.0	0.9	0.0	1.73	4.09	11/5		
12/5	01/6	HEADWALL											25	1.0	0			0				1.000	37.645	37.54	37.54	37.54	0.00	1.81	0.0	0.0	0.0	0.0			12/5		
01/6	02/6	BASIN NODE FOR CALCULATIONS											25	1.0	141			141				1.000	37.900	37.54											01/6		
01/6	02/6	BASIN NODE FOR CALCULATIONS											25	1.0	141			141				1.000	37.900	37.54	37.54	37.54	0.00	0.69	0.0	0.0	0.0	0.0			01/6		
02/6	03/6	MANHOLE C/W ROOF SLAB AND 900x600 DOME TOP											60	1.0	693	0.00	0.00	693	0	0.00	08/55	1.000	37.100	37.54	35.96	35.45	4.31	0.69	1.9	0.0	1.6	0.0	1.18	4.35	02/6		
03/6	08/55	HEADWALL											25	1.0	0			0				1.000	35.740	35.15	35.15	33.56	5.06	0.69	0.0	0.0	0.0	0.0	0.1	0.67	03/6		
08/55	09/55	100% CAPTURE FOR FUTURE EXTENSION											25	1.0	0			0				1.000	34.000	33.56											08/55		
01/6	02/6	BASIN NODE FOR CALCULATIONS											25	1.0	141			141				1.000	37.900	37.54	37.54	37.54	0.00	0.30	0.0	0.0	0.0	0.0			01/6		
01/7	02/7	WEIR FOR CALCULATIONS											25	1.0	0			0				1.000	37.900	37.54	37.54	37.49	0.91	0.30	0.0	0.0	0.0	0.0	0.33	0.37	01/7		
02/7	08/55	WEIR FOR CALCULATIONS											25	1.0	0			0				1.000	37.900	37.48	37.48	33.56	8.64	0.30	0.0	0.0	0.0	0.0	0.01	0.09	02/7		
08/55	09/55	100% CAPTURE FOR FUTURE EXTENSION											25	1.0	0			0				1.000	34.000	33.56											08/55		
01/8	09/5	INLET GULLY ON GRADE (LG) Type S Lintel	0.056			120	133.6	0.877	0.916	0.031			25	2.7	31	0.00	0.00	31	0	0.00	02/21	2.725	40.972	40.63	40.62	40.62	0.19	0.03	7.0	0.0	0.0	0.0	0.1	1.48	01/8		
09/5	10/5	MANHOLE 1050mm DIA											25	1.0	0			0				1.000	41.020	40.62											09/5		
01/9	09/5	INLET GULLY ON GRADE (LG) Type S Lintel	0.208			120	133.6	0.877	0.916	0.116			25	2.7	120	1.66	0.02	94	26	0.01	04/17	2.725	40.972	40.79	40.72	40.62	2.06	0.09	9.7	0.0	0.2	0.0	0.29	1.55	01/9		
09/5	10/5	MANHOLE 1050mm DIA											25	1.0	0			0				1.000	41.020	40.62											09/5		
01/17	02/17	INLET GULLY ON GRADE (LG) Type S Lintel	0.254			120	133.6	0.877	0.916	0.142			25	1.0	213	1.74	0.05	142	69	0.05	01/19	1.000	46.789	45.81	45.76	44.44	10.61	0.14	6.7	0.0	0.0	0.0	0.19	3.66	01/17		
02/17	03/17	INLET GULLY ON GRADE (LG) Type S Lintel	0.197			120	133.6	0.877	0.916	0.110			25	1.0	110	1.36	0.02	90	20	0.02	03/17	1.000	45.463	44.44	44.44	41.88	9.50	0.23	1.9	0.0	0.0	0.0	0.28	5.74	02/17		
03/17	04/17	DRAINWAYS 1TCSO ON GRADE	0.111			120	133.6	0.877	0.916	0.062			25	1.0	81	1.25	0.01	72	8	0.00	04/17	1.000	42.101	41.88	41.70	40.23	6.04	0.42	1.3	0.0	0.6	0.0	0.64	4.68	03/17		
04/17	10/5	DRAINWAYS 0TCSO SAG	0.079			120	133.6	0.877	0.916	0.044			25	1.0	177	3.48	0.13	-168	315	0.12	01/21	1.000	40.074	40.23	40.14	39.99	1.00	0.44	1.0	0.0	0.2	0.0	0.67	2.88	04/17		
10/5	11/5	MANHOLE 1050mm DIA											25	1.0	0			0				1.000	40.227	39.99											10/5		
01/18	04/17	INLET GULLY IN SAG (LS) Type S Lintel	0.208			120	133.6	0.877	0.916	0.116			25	1.0	159	3.05	0.05	84	104	0.05	04/17	1.000	40.151	40.26	40.23	40.23	0.00	0.08	9.7	0.0	0.2	0.0	0.13	2.38	01/18		
04/17	10/5	DRAINWAYS 0TCSO SAG	0.079			120	133.6	0.877	0.916	0.044			25	1.0	177	3.48	0.13	-168	315	0.12	01/21	1.000	40.074	40.23												04/17	
01/19	03/17	INLET GULLY ON GRADE (LG) Type S Lintel	0.177			120	133.6	0.877	0.916	0.099			25	1.0	166	1.64	0.03	120	46	0.02	01/18	1.000	42.101	42.14	42.02	41.88	2.11	0.12	8.7	0.0	0.3	0.0	0.37	1.53	01/19		
03/17	04/17	DRAINWAYS 1TCSO ON GRADE	0.111			120	133.6	0.877	0.916	0.062			25	1.0	81	1.25	0.01	72	8	0.00	04/17	1.000	42.101	41.88												03/17	
01/21	02/21	INLET GULLY IN SAG (LS) Type S Lintel	0.291			120	133.6	0.877	0.916	0.162			60	0.6	490	3.90	0.15	102	395	0.15	02/21	0.561	38.583	38.77	38.72	38.69	0.47	0.10	9.7	0.0	0.1	0.0	0.3	1.35	01/21		
02/21	05/20	INLET GULLY IN SAG (LS) Type S Lintel	0.092			120	133.6	0.877	0.916	0.051			60	0.7	438	4.57	0.18	-113	506	0.19	01/4	0.698	38.482	38.69	38.69	38.68	0.03	0.13	2.7	0.0	0.1	0.0	0.59	1.52	02/21		
05/20	11/5	MANHOLE 1050mm DIA											25	1.0	0			0				1.000	38.731	38.68											05/20		
01/59	02/59	TYPE 2 FIELD INLET 900x600 C/W DOME TOP			0.316							0.141	60	1.0	683	0.00	0.00	683	0	0.00	08/55	1.000	36.700	37.54	36.00	35.45	4.20	0.68	1.9	0.0	1.5	0.0	1.22	4.3	01/59		
02/59	08/55	HEADWALL											25	1.0	0			0				1.000	35.740	35.15	35.15	33.56	5.02	0.68	0.0	0.0	0.0	0.0	0.1	1.54	02/59		
08/55	09/55	100% CAPTURE FOR FUTURE EXTENSION											25	1.0	0			0				1.000	34.000	33.56											08/55		

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DEVELOPMENT APPROVAL

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PROJECT NAME

COURTNEY DR
UPPER COOMERA

STAGE 04

RP DESCRIPTION

LOT 188, 189, 190, 191 & 192 ON RP173728



DESIGNED RB	DRAWN BL
APPROVED <i>W.K. Smith</i>	RPEQ4706 DATE 27-04-24
DRAWING NUMBER	REV
41901-04-700	B

