WOODLINKS VILLAGE STAGE 10

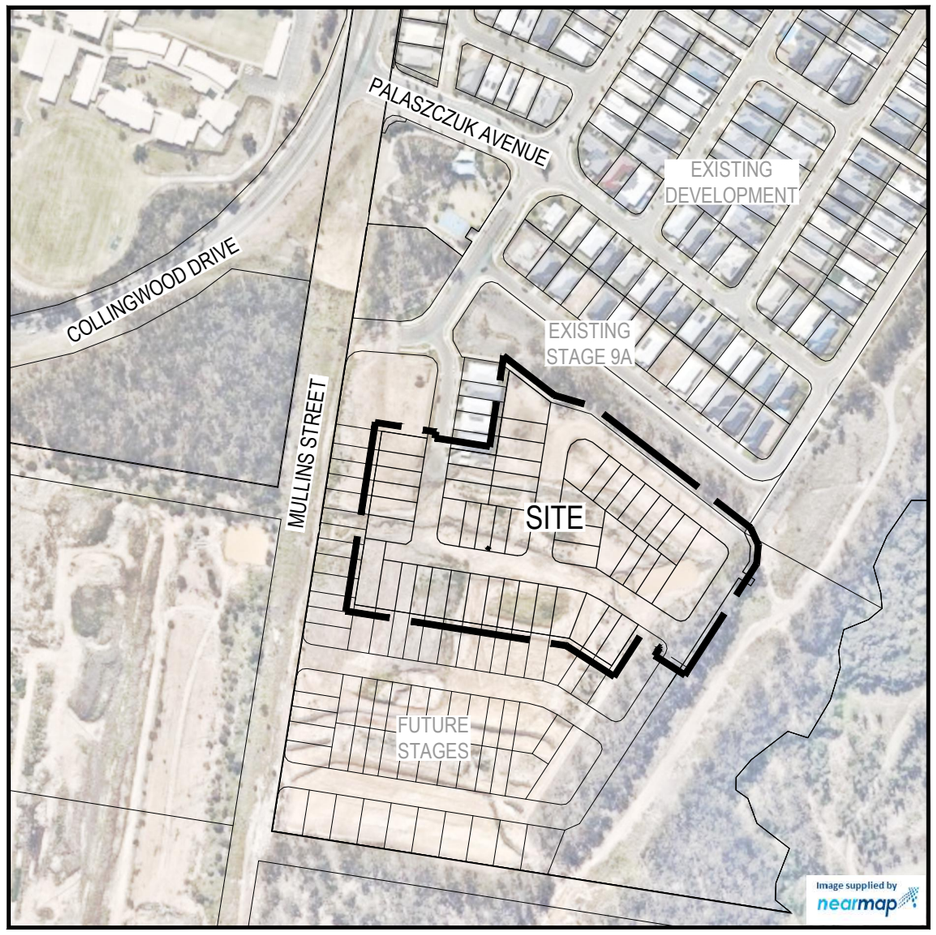
COLLINGWOOD DRIVE, COLLINGWOOD PARK

FOR 'CANBERRA ESTATES CONSORTIUM NO.36 PTY LTD'

DRAWING LIST

EARTHWORKS, ROADWORKS AND DRAINAGE

SEWER AND WATER RETICULATION



LOCALITY PLAN
SCALE 1:2000 (A1)
SCALE 1:4000 (A3)

PROJECT INFORMATION SUMMARY:
No. OF LOTS = 51
AREA OF SITE = 2.96 ha
RP DESCRIPTION LOT 1 ON SP 266990
DATUM LEVEL AND LOCATION P.M. 110122 RL 40.320 AHD
LOCAL AUTHORITY: IPSWICH CITY COUNCIL
COUNCIL REFERENCE NUMBER: 2558/2014/MAMC

NOTE:
THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH:
- VEGETATION MANAGEMENT PLAN
- LANDSCAPE ARCHITECT'S PLANS
- ELECTRICAL, COMMUNICATIONS AND GAS CONSULTANT'S PLANS
- SEDIMENT AND EROSION HAZARD ASSESSMENT
- SAFETY IN DESIGN REPORT

AS-CONSTRUCTED CERTIFICATION
Signature: ..... Date: 24/03/23
DANIEL COLLINS RPEQ No. 18631
For and on behalf of Colliers International engineering & design pty ltd

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	17.06.22	CL	AK	ISSUED FOR CONSTRUCTION
B	24.03.23	CL	AK	AS CONSTRUCTED

DRAWN
DESIGN
STATUS: AS CONSTRUCTED
APPROVED: DANIEL COLLINS RPEQ 18631
FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE
1:2000 20 0 20 40 60 80 100 A1
1:4000 A3

CLIENT: CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED

ASSOCIATED CONSULTANT
SAUNDERS HAVILL GROUP
PH: 1300 123 744

PROJECT NAME: WOODLINKS VILLAGE - STAGE 10
COOLINGWOOD DRIVE,
COOLINGWOOD PARK

DRAWING TITLE: COVER PLAN

PROJECT No.	DRAWING No.	REVISION
18-0176	100	B

GENERAL NOTES:

1. THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIALS, PLANT AND EQUIPMENT TO CONSTRUCT THE WORKS AS DOCUMENTED AND STRICTLY IN ACCORDANCE WITH THE RELEVANT AUTHORITY STANDARDS, SPECIFICATIONS AND REQUIREMENTS.
2. THE EXISTING SERVICES THAT ARE SHOWN ON THE DRAWINGS ARE PROVIDED FOR INFORMATION PURPOSES ONLY. NO RESPONSIBILITY IS TAKEN BY THE SUPERINTENDENT OR THE PRINCIPAL FOR INFORMATION THAT HAS BEEN SUPPLIED BY OTHERS, OR ANY EXISTING SERVICES THAT MAY BE PRESENT NOT SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL VERIFY THE POSITION OF ANY UNDERGROUND SERVICES WITHIN THE AREAS OF WORKS AND SHALL BE RESPONSIBLE FOR MAKING GOOD ANY DAMAGE THERETO. ANY ALTERATION WORKS TO SERVICES WILL BE CARRIED OUT ONLY BY THE SERVICE OWNER AUTHORITY UNLESS APPROVED OTHERWISE.
3. ALL CONSTRUCTION ACTIVITIES UNDERTAKEN SHALL COMPLY WITH CURRENT WORKPLACE HEALTH AND SAFETY REQUIREMENTS AND LEGISLATION.
4. PRIOR TO COMMENCING WORK, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL RELEVANT LOCAL AUTHORITY PERMITS.
5. THE CONTRACTOR SHALL NOT COMMENCE THE DEMOLITION OF ANY EXISTING BUILDINGS AND/OR STRUCTURES WITHOUT APPROVAL FROM THE SUPERINTENDENT.
6. THE CONTRACTOR SHALL APPLY INDUSTRY BEST PRACTICE SO WORKS SHALL NOT DISTURB OR AFFECT NEARBY RESIDENTS EITHER BY DUST, NOISE, FLOODING OR DISCONNECTION OF SERVICES. CONTRACTOR TO ENSURE THAT ACCESS AND SERVICES TO EXISTING PROPERTIES ARE AVAILABLE AT ALL TIMES.
7. THE CONTRACTOR SHALL VERIFY LEVELS OF EXISTING SERVICE CROSSINGS AND CONNECTION POINTS PRIOR TO COMMENCEMENT OF WORKS AND NOTIFY SUPERINTENDENT OF ANY DISCREPANCIES BETWEEN ACTUAL AND PROPOSED DESIGN LEVELS.
8. THESE ENGINEERING DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE APPROVED VEGETATION MANAGEMENT PLAN, WHERE APPLICABLE. WHEN IN DOUBT, ALL EXISTING TREES ARE TO REMAIN UNLESS DIRECTED OTHERWISE.
9. HOLD POINT: ONCE THE BASE OF MANHOLES, INSPECTION PITS, GULLIES AND FIELD INLETS FOR STORMWATER DRAINAGE AND SEWER RETICULATION HAVE BEEN POURED, CONSTRUCTION SHALL ONLY RE-COMMENCE ONCE THE SUPERINTENDENT AND/OR ENGINEER HAVE INSPECTED THE WORKS.
10. THE CONTRACTOR SHALL NOTE DURING THE COURSE OF THE WORKS WHEN JOINT INSPECTIONS WITH THE AUTHORITY AND THE SUPERINTENDENT ARE REQUIRED. THESE INCLUDE PRE-STARTS, SUBGRADES, PRE-SEALS, CLEARING, AND OTHER SUCH INSPECTIONS AS NOMINATED IN THE APPROVAL AND THE SPECIFICATIONS. THE CONTRACTOR SHALL ENSURE NO WORKS PROCEED PAST THE INSPECTION POINT UNTIL THE JOINT INSPECTION HAS BEEN SUCCESSFULLY COMPLETED.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A SAFE MOVEMENT OF TRAFFIC AND THE PROTECTION OF PERSON AND PROPERTY THROUGH AND AROUND THE SITE. THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC MANAGEMENT INCLUDING THE DESIGN, CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ROADWAYS, DETOURS, SIGNS, LIGHTS AND BARRIER AS REQUIRED STRICTLY IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

BULK EARTHWORKS NOTES

1. NOTWITHSTANDING THE EXTENTS OF CUTTING AND FILLING SHOWN ON DRAWINGS, THE SUPERINTENDENT RESERVES THE RIGHT TO ADJUST THE FINISHED SURFACE LEVELS AND EARTHWORKS EXTENTS THROUGH WRITTEN DIRECTION.
2. THE CONTRACTOR SHALL UNDERTAKE ALL CLEARING USING INDUSTRY BEST PRACTICE INCLUDING CONSIDERATION OF FAUNA RELOCATION.
3. THE CONTRACTOR SHALL UNDERTAKE ALL EARTHWORKS IN ACCORDANCE WITH AS3798-2007 AND LOCAL AUTHORITY REQUIREMENTS. LEVEL 1 SUPERVISION IS REQUIRED.
4. THE CONTRACTOR SHALL CONSIDER LOADS GENERATED BY THE EARTHWORKS OPERATIONS SO AS TO AVOID DAMAGE TO ALL PIPES, SERVICES AND STRUCTURES.
5. THE EARTHWORKS DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE PROJECT'S SEDIMENT AND EROSION CONTROL PLAN, WHERE APPLICABLE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PLANNING, DESIGN, CERTIFICATION, IMPLEMENTATION AND MAINTENANCE OF AN EROSION AND SEDIMENT CONTROL PLAN THAT IS COMPLIANT WITH THE INTERNATIONAL EROSION CONTROL ASSOCIATION (IECA) GUIDELINE 'BEST PRACTICE EROSION AND SEDIMENT CONTROL' AND RELEVANT COUNCIL POLICIES.
7. ALLOTMENT FINISHED SURFACE LEVELS, SHOWN ON THE LAYOUT PLAN, INDICATE THE FINISHED SURFACE LEVEL AFTER TOPSOIL PLACEMENT.

ROADWORKS AND DRAINAGE NOTES

1. ALL WORKS SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY'S STANDARD DRAWINGS, METHODS AND SPECIFICATIONS.
2. NOTWITHSTANDING THE EXTENTS OF CUTTING AND FILLING SHOWN ON DRAWINGS, THE SUPERINTENDENT RESERVES THE RIGHT TO ADJUST THE FINISHED SURFACE LEVELS AND EARTHWORKS EXTENTS THROUGH WRITTEN DIRECTION.
3. NEW CONSTRUCTION SHALL BE NEATLY JOINED TO EXISTING FORMATION. WHERE REQUIRED, THE EXISTING FORMATION SHALL BE SAW CUT IN ACCORDANCE WITH IPWEAQ STD DRG RS-170. LEVELS AND GRADIENTS AT CONNECTIONS WITH EXISTING WORKS MAY BE VARIED AS REQUIRED TO ACHIEVE A SMOOTH CONNECTION.
4. THE CONTRACTOR SHALL UNDERTAKE ALL EARTHWORKS IN ACCORDANCE WITH AS3798-2007 AND LOCAL AUTHORITY REQUIREMENTS. LEVEL 1 SUPERVISION IS REQUIRED.
5. THE CONTRACTOR SHALL SUPPLY THE SUPERINTENDENT WITH THE SUBGRADE TEST RESULTS NECESSARY FOR ALL PAVEMENT DESIGN.
6. THE CONTRACTOR SHALL ENSURE A MINIMUM OF 75mm TOPSOIL TO ALL VERGE AND BATTER AREAS (AND STABILISATION AS ORDERED)
7. THE CONTRACTOR SHALL INSTALL ALL FOOTPATH AND PRAM RAMPS IN COMPLIANCE WITH THE AUTHORITY'S STANDARD DRAWINGS. PRAM RAMPS ARE TO BE LOCATED CLEAR OF DRAINAGE GULLY PITS AND FUTURE DRIVEWAY POSITIONS INDICATED ON THE LAYOUT PLANS.
8. RETAINING WALL SUBSOIL DRAIN CONNECTION INTO KERB SUBSOIL DRAIN IS NOT ACCEPTABLE TO COUNCIL.
9. THE CONTRACTOR SHALL ENSURE THAT ALL RETAINING WALL SUBSOIL DRAINS ARE NOT CONNECTED TO KERB SUBSOIL DRAINS. CONTRACTOR TO DEMONSTRATE TO SUPERINTENDENT THAT SUITABLE CONNECTIONS HAVE BEEN PROVIDED FOR ALL WALLS.
10. ALL STORMWATER DRAINAGE MATERIALS, BEDDING, JOINTING AND STEP IRON REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITIES STANDARD DRAWINGS, METHODS AND SPECIFICATIONS.
11. THE STORMWATER PIPE CLASSES HAVE BEEN DESIGNED FOR SERVICE LOADS ONLY. THE CONTRACTOR SHALL ASSESS THE SUITABILITY OF MACHINERY USED ON SITE AND THE ANTICIPATED CONSTRUCTION LOADS, AND UPGRADE THE PIPE CLASSES IF NECESSARY IN ACCORDANCE WITH AS3725-2007.
12. THE TERM D_{50} DOCUMENTED ON THE DRAWINGS, IN RELATION TO ROCK ARMORING, CORRESPONDS TO THE REQUIRED MEDIAN DIAMETER OF THE PLACED ROCKS. THE ROCKS USED SHALL NOT VARY IN SIZE BY +/- 30% OF THE PROPOSED D_{50} SIZE.

ROOFWATER NOTES

1. THE GEOMETRIC CENTRE SHALL BE TAKEN AS THE SETOUT POINT FOR ALL STRUCTURES, UNLESS DETAILED OTHERWISE.
2. ROOFWATER ALIGNMENT, COVER, MATERIALS, BEDDING, JOINTING AND STEP IRON REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY'S STANDARD DRAWINGS, METHODS AND SPECIFICATIONS.
3. ALL PVC PIPES ARE TO BE MINIMUM CLASS SN8.
4. END CAPS SHALL BE INSTALLED ON ENDS OF ALL PIPES AND STUBS.
5. WHERE ROOFWATER PIPES ARE ALIGNED BEHIND PROPOSED RETAINING WALLS, THE CONTRACTOR IS TO REFER TO THE SPECIFIC PROJECT DESIGN DETAILS AND CONFIRM CLEARANCES WITH THE SUPERINTENDENT PRIOR TO LAYING OF THE PIPES.
6. PROPERTY CONNECTIONS SHALL BE 150Ø UNLESS SHOWN OTHERWISE. THE CONTRACTOR SHALL EXTEND CONNECTIONS A MINIMUM OF 1.0m BEYOND ADJACENT SEWER LINES, WHERE APPLICABLE.
7. IN INSTANCES WHERE REAR ALLOTMENT DRAINAGE IS NOT PROVIDED, THE CONTRACTOR SHALL INSTALL A ROOFWATER CONNECTION TO EACH PROPERTY BY ONE OF THE FOLLOWING METHODS, AS SHOWN ON THE LAYOUT PLAN:
   - TWO ROOFWATER KERB ADAPTOR 500mm FROM THE DOWNSTREAM BOUNDARY (UNLESS SHOWN ON A DIFFERENT ALIGNMENT). WHERE THERE IS A CONCRETE FOOTPATH, A ROOFWATER PIPE SHALL BE INSTALLED FROM THE PROPERTY BOUNDARY CONNECTED TO THE KERB ADAPTOR AT 1.25% MINIMUM GRADE IN ACCORDANCE WITH COUNCIL'S STANDARDS.
   - ONE 150Ø ROOFWATER PIPE CONNECTED TO PROPOSED STORMWATER GULLY PIT OR MANHOLE AT MINIMUM 1.0% GRADE WITH 1.0m COVER.

AS-CONSTRUCTED CERTIFICATION
Signature: Date: 24/03/23
DANIEL COLLINS RPEQ No. 18631
For and on behalf of Colliers International engineering & design pty ltd

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STATUS: AS CONSTRUCTED
APPROVED: DANIEL COLLINS RPEQ 18631
FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE

CLIENT: CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED

ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: WOODLINKS VILLAGE - STAGE 10
COOLINGWOOD DRIVE, COOLINGWOOD PARK

DRAWING TITLE: GENERAL NOTES

PROJECT No.	DRAWING No.	REVISION
18-0176	101	B

EARTHWORKS NOTE:

1. IT IS ASSUMED THAT STAGE 10 WILL INTERFACE WITH THE BULK EARTHWORKS SURFACE INCLUDED IN THE STAGE 9 OPERATIONAL WORKS PACKAGE U.N.O.
2. REFER 18-0176-400 SERIES FOR OVERALL EARTHWORKS AND FURTHER DETAILS OF EARTHWORKS INTERFACING WITH FUTURE STAGES

BATTER 1:6 OR STEEPER ARE TO BE VEGETATED AND CERTIFIED AS STABLE BY AN EXPERIENCED AND SUITABLY QUALIFIED RPEQ ENGINEER.

THE CONTRACTOR MUST SUBMIT TO THE SUPERINTENDANT A COPY OF ALL RELEVANT BUILDING APPROVALS AND ASSOCIATED DESIGN AND CONSTRUCTION FOR ALL EARTH RETAINING STRUCTURES THAT ARE NOT APPROVED BY THIS DEVELOPMENT PERMIT AND ARE CONSIDERED BUILDING WORKS IN ACCORDANCE WITH BUILDING ACT 1975.

RETAINING WALLS DO NOT FORM PART OF THIS APPROVAL.

BULK EARTHWORKS MUST REMAIN WITHIN SITE BOUNDARY

NOTE:
FINISHED SURFACE LEVELS IN ACCORDANCE WITH THE AS-CONSTRUCTED PLANS PREPARED BY SAUNDERS HAVILL GROUP.

EXISITING SLEEPER RETAINING WALL, CONSTRUCTED AS PART OF STAGE 9 WORKS

EXISTING STAGE 9

FUTURE STAGE 9B

STAGE 12

STAGE 11

RETAINING WALL TO EXTEND OUT 2 PANELS

PROPOSED EARTHWORKS TO TIE NEATLY INTO EXISTING VERGE LEVELS BUILT AS PART OF STAGE 9A WORKS

TEMPORARY CUT-OFF DRAIN 150mm DEEP, 1 IN 4 SIDES. TO REDIRECT FUTURE LOT RUNOFF DOWNSTREAM

1 IN 3 BATTER TO NATURAL SURFACE

PMT RL 36.60

WATER CORRIDOR

ROAD 12

ROAD 14

DRIVEWAY 02

MULLINS STREET

LEGEND

- PROPOSED AREA OF WORKS
- PROPOSED SURFACE CONTOUR
- EXISTING SURFACE CONTOUR
- PROPOSED EARTHWORKS PAD SETBACK LINE
- PROPOSED SLEEPER RETAINING WALL
- EXISTING SLEEPER RETAINING WALL
- FUTURE SLEEPER RETAINING WALL
- PROPOSED PAD LEVEL (PL) (INCLUDES TOPSOIL PLACEMENT)
- EXISTING SURFACE LEVEL (ESL)
- FUTURE SURFACE LEVEL
- PROPOSED AREA OF CUT
- PROPOSED AREA OF FILL
- INDICATIVE DRIVEWAY LOCATIONS
- ZERO LOT BOUNDARY
- EXISTING STORMWATER DRAINAGE PIPE
- EXISTING ROOFWATER DRAINAGE PIPE
- EXISTING SEWERAGE MAIN
- EXISTING WATER MAIN
- EXISTING WATER CONDUIT
- EXISTING ELECTRICAL CABLE U/G
- EXISTING ELECTRICAL CABLE O/H
- EXISTING GAS MAIN
- EXISTING DRAIN
- PROPOSED TEMPORARY CUT-OFF DRAIN

ASCON LEGEND

- AS CONSTRUCTED CONTOUR

WARNING! - EXISTING SERVICES

EXTREME CARE SHOULD BE TAKEN WHEN EXCAVATING IN THIS AREA. THE FOLLOWING EXISTING SERVICES ARE LIKELY TO BE PRESENT IN THE VICINITY OF THE SITE:

- ELECTRICAL CABLES
- TELECOMMUNICATIONS CABLES
- GAS MAINS
- WATER MAINS
- SEWER MAINS

THE CONTRACTOR SHOULD CONTACT THE SERVICE PROVIDER FOR FURTHER INFORMATION AND SATISFY THEMSELVES OF ANY SPECIFIC TREATMENT OR REQUIREMENTS.

NOTE:
REFER TO 18-0176-400 FOR BORROW PLAN

AS-CONSTRUCTED CERTIFICATION

Signature: ..... Date: 24/03/23

DANIEL COLLINS RPEQ No. 18631

For and on behalf of Colliers International engineering & design pty ltd

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DRAWN

DESIGN

STATUS: **AS CONSTRUCTED**

APPROVED: DANIEL COLLINS RPEQ 18631

FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE: 1:500 / 1:1000 — 10 5 0 10 20 — A1 / A3

CLIENT: **CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED**

ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: **WOODLINKS VILLAGE - STAGE 10**

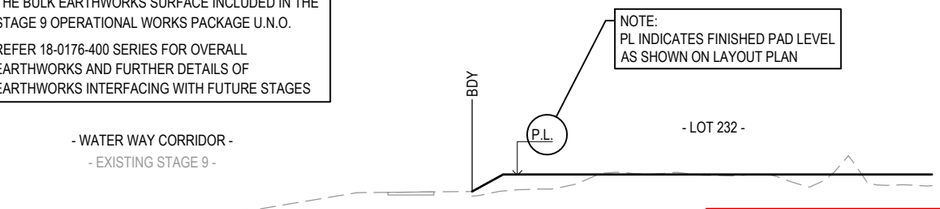
COOLINGWOOD DRIVE, COOLINGWOOD PARK

DRAWING TITLE: **BULK EARTHWORKS LAYOUT PLAN**

PROJECT No.	DRAWING No.	REVISION
18-0176	102	B

EARTHWORKS NOTE:

1. IT IS ASSUMED THAT STAGE 10 WILL INTERFACE WITH THE BULK EARTHWORKS SURFACE INCLUDED IN THE STAGE 9 OPERATIONAL WORKS PACKAGE U.N.O.
2. REFER 18-0176-400 SERIES FOR OVERALL EARTHWORKS AND FURTHER DETAILS OF EARTHWORKS INTERFACING WITH FUTURE STAGES



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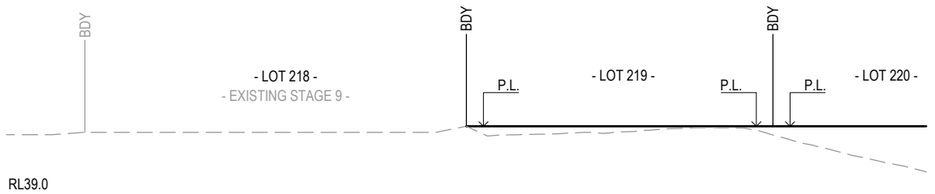

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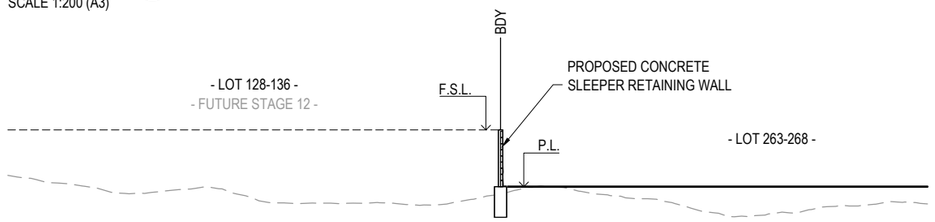

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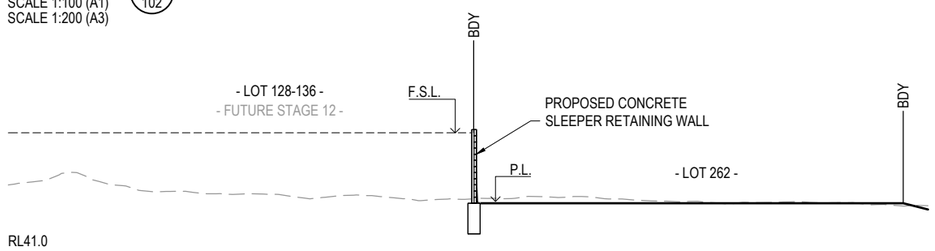

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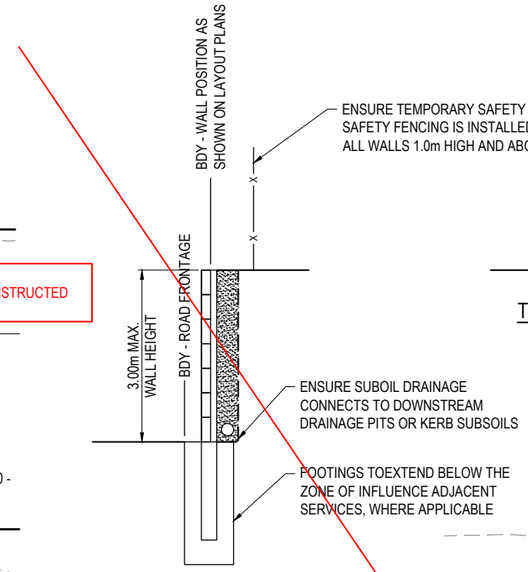


CONCRETE SLEEPER RETAINING WALL TYPICAL DETAIL

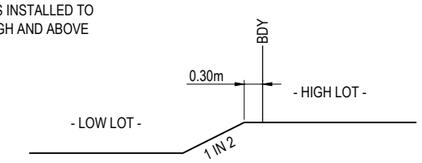
SCALE 1:25 (A1)

BATTER 1:6 OR STEEPER ARE TO BE VEGETATED AND CERTIFIED AS STABLE BY AN EXPERIENCED AND SUITABLY QUALIFIED RPEQ ENGINEER.

THE APPLICANT MUST SUBMIT TO THE ASSESSMENT MANAGER A COPY OF ALL RELEVANT BUILDING APPROVALS AND ASSOCIATED DESIGN AND CONSTRUCTION FOR ALL EARTH RETAINING STRUCTURES THAT ARE NOT APPROVED BY THIS DEVELOPMENT PERMIT AND ARE CONSIDERED BUILDING WORKS IN ACCORDANCE WITH BUILDING ACT 1975.

HOLD POINT:

CONTRACTOR TO NOTIFY SUPERINTENDANT ONCE RETAINING WALL POST HOLES ARE DRILLED TO CONFIRM LOCATION OF REQUIRED STEPS IN RETAINING WALL SLEEPERS.



TYPICAL STEP BETWEEN LOTS DETAIL

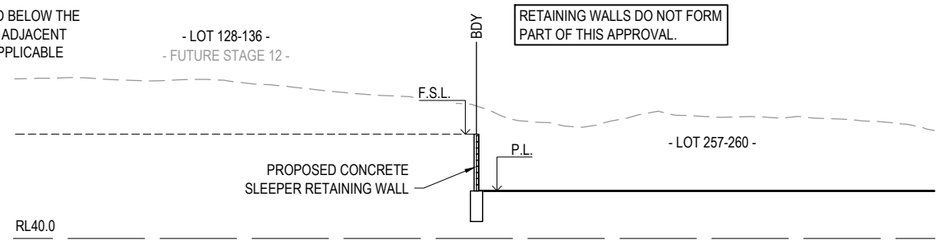
SCALE 1:50 (A1)
SCALE 1:100 (A3)

RETAINING WALL NOTES:

1. ALL RETAINING WALLS ARE TO BE STRUCTURALLY DESIGNED AND CERTIFIED. FORMS 15 AND 16 ARE TO BE PROVIDED.
2. DESIGN OF WALLS TO CONSIDER ALL LOADS (FENCES, DWELLINGS ETC) AND ASSOCIATED IMPACTS FROM ANY ADJACENT SERVICES - FOOTING DEPTHS TO BE EXTENDED AS REQUIRED.
3. GEOTECHNICAL CONDITIONS ARE TO BE CONFIRMED AND APPROPRIATELY CONSIDERED FOR ALL WALLS.
4. REFER LANDSCAPE DRAWINGS FOR FURTHER INFORMATION ON RETAINING WALLS, PARTICULARLY RELATING TO FINISHES.
5. TEMPORARY SAFETY FENCING TO BE INSTALLED BEHIND ALL WALLS 1.0m HIGH AND GREATER.
6. WALLS TO BE DESIGNED TO ACCOMMODATE A SURCHARGE SUITABLE FOR A RESIDENTIAL HOUSE IMMEDIATELY BEHIND THE WALL. REFER TYPICAL DETAIL.

WHERE EARTH RETAINING STRUCTURES FACE THE PUBLIC REALM THAT THEY ARE CONSTRUCTED EITHER OF A-GRADE SAWCUT SANDSTONE BLOCKS OR CONCRETE SLEEPERS WHICH ARE PROVIDED WITH TEXTURED FINISH AND FULL DEPTH COLOUR TREATMENT

RETAINING WALLS DO NOT FORM PART OF THIS APPROVAL.



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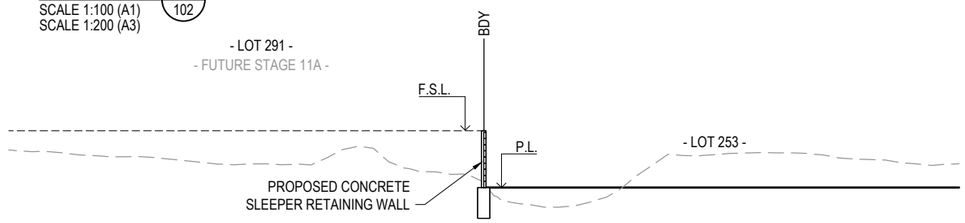

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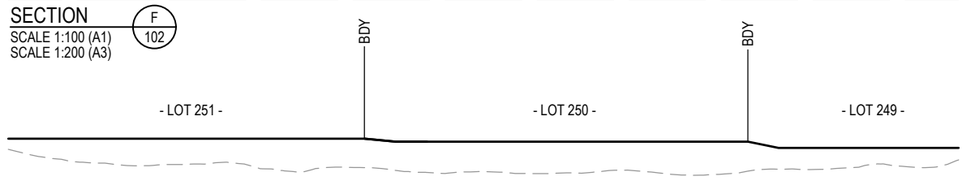

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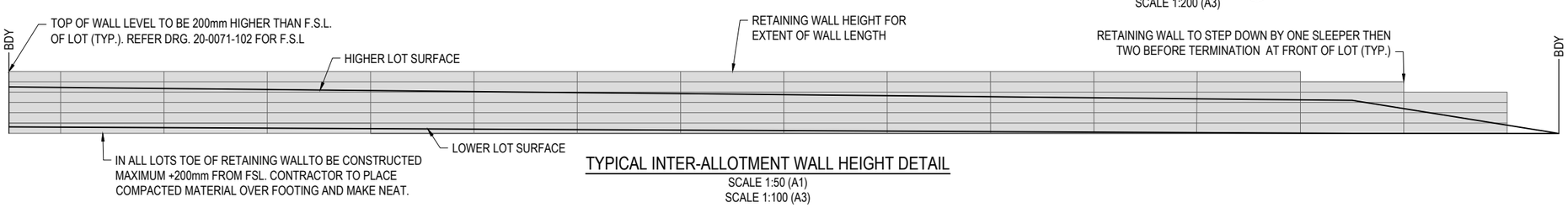

TYPICAL INTER-ALLOTMENT WALL HEIGHT DETAIL

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

AS-CONSTRUCTED CERTIFICATION

Signature: ..... Date: 24/03/23

DANIEL COLLINS RPEQ No. 18631

For and on behalf of Colliers International engineering & design pty ltd

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DESIGN

STATUS: **AS CONSTRUCTED**

APPROVED: DANIEL COLLINS RPEQ 18631

FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE
1:25 0.25 0 0.25 0.5 0.75 1.0 1.25 A1
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1:100 A3
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1:200 A3

CLIENT: **CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED**

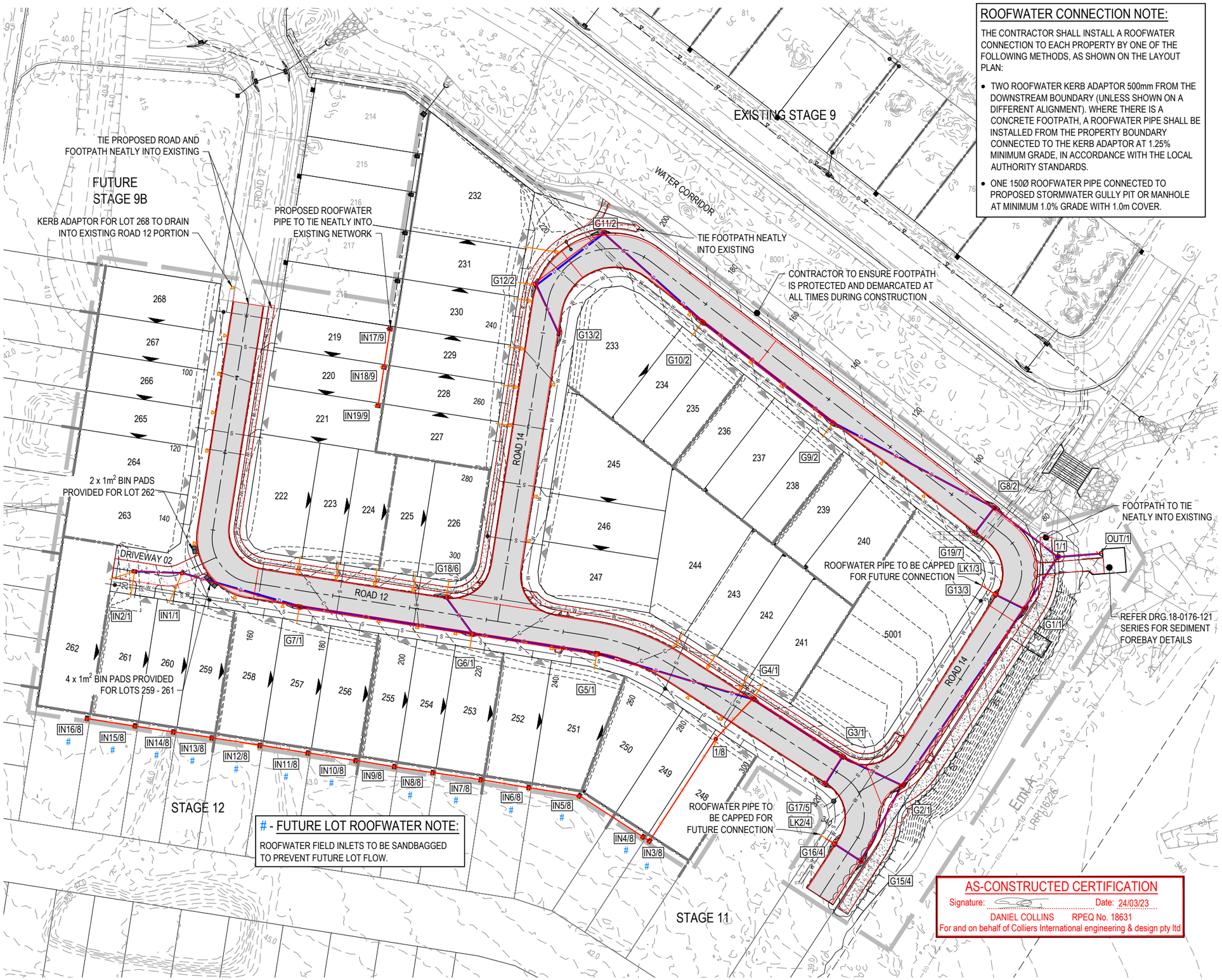
ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: **WOODLINKS VILLAGE - STAGE 10**

COOLINGWOOD DRIVE, COOLINGWOOD PARK

DRAWING TITLE: **BULK EARTHWORKS TYPICAL SECTIONS**

PROJECT No.	DRAWING No.	REVISION
18-0176	103	B



ROOFWATER CONNECTION NOTE:

THE CONTRACTOR SHALL INSTALL A ROOFWATER CONNECTION TO EACH PROPERTY BY ONE OF THE FOLLOWING METHODS, AS SHOWN ON THE LAYOUT PLAN:

- TWO ROOFWATER KERB ADAPTOR 500mm FROM THE DOWNSTREAM BOUNDARY (UNLESS SHOWN ON A DIFFERENT ALIGNMENT). WHERE THERE IS A CONCRETE FOOTPATH, A ROOFWATER PIPE SHALL BE INSTALLED FROM THE PROPERTY BOUNDARY CONNECTED TO THE KERB ADAPTOR AT 1.25% MINIMUM GRADE, IN ACCORDANCE WITH THE LOCAL AUTHORITY STANDARDS.
- ONE 150Ø ROOFWATER PIPE CONNECTED TO PROPOSED STORMWATER GULLY PIT OR MANHOLE AT MINIMUM 1.0% GRADE WITH 1.0m COVER.

- FUTURE LOT ROOFWATER NOTE:

ROOFWATER FIELD INLETS TO BE SANDBAGGED TO PREVENT FUTURE LOT FLOW.

AS-CONSTRUCTED CERTIFICATION

Signature: ..... Date: 24/03/23

DANIEL COLLINS RPEQ No. 18631

For and on behalf of Colliers International engineering & design pty ltd

LEGEND

- PROPOSED AREA OF WORKS
- PROPOSED ROAD CONTROL LINE
- EXISTING ROAD CROWN
- PROPOSED KERB INVERT LINE
- EXISTING EDGE OF BITUMEN
- PROPOSED KERB TRANSITION LOCATION
- PROPOSED CONCRETE PATH AND PRAM RAMP
- PROPOSED NEW ROAD PAVEMENT
- PROPOSED CONCRETE DRIVEWAY
- INDICATIVE DRIVEWAY LOCATION
- ZERO LOT BOUNDARY
- PROPOSED SURFACE CONTOUR
- EXISTING SURFACE CONTOUR
- PROPOSED STORMWATER DRAINAGE PIPE
- EXISTING STORMWATER DRAINAGE PIPE
- PROPOSED ROOFWATER DRAINAGE PIPE
- EXISTING ROOFWATER DRAINAGE PIPE
- PROPOSED DRAINAGE SWALE
- EXISTING DRAIN
- PROPOSED ROOFWATER KERB ADAPTOR
- PROPOSED ROOFWATER KERB ADAPTOR WITH PIPE CONNECTION TO ALLOTMENT
- PROPOSED SLEEPER RETAINING WALL
- EXISTING SLEEPER RETAINING WALL
- PROPOSED SEWERAGE MAIN
- EXISTING SEWERAGE MAIN
- PROPOSED WATER MAIN
- EXISTING WATER MAIN
- PROPOSED WATER CONDUIT
- EXISTING WATER CONDUIT
- EXISTING ELECTRICAL CABLE U/G
- EXISTING ELECTRICAL CABLE O/H
- EXISTING GAS MAIN

ASCON LEGEND

- STORMWATER DRAINAGE PIPE
- STORMWATER MANHOLE
- STORMWATER HEADWALL
- STORMWATER PIT
- EDGE OF ROAD
- FOOTPATH

KERB TYPES NOTE:

REFER TO THE SURVEY SETOUT ENGINEERING DRAWING FOR KERB TYPES AND TRANSITION LOCATIONS

WARNING! - EXISTING SERVICES

EXTREME CARE SHOULD BE TAKEN WHEN EXCAVATING IN THIS AREA. THE FOLLOWING EXISTING SERVICES ARE LIKELY TO BE PRESENT IN THE VICINITY OF THE SITE:

- ELECTRICAL CABLES
- TELECOMMUNICATIONS CABLES
- GAS MAINS
- WATER MAINS
- SEWER MAINS

THE CONTRACTOR SHOULD CONTACT THE SERVICE PROVIDER FOR FURTHER INFORMATION AND SATISFY THEMSELVES OF ANY SPECIFIC TREATMENT OR REQUIREMENTS.

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	17.06.22	CL	AK	ISSUED FOR CONSTRUCTION
B	19.09.22	CL	AK	LOT CAL AND FOOTPATH AMENDED
C	23.03.23	CL	AK	AS CONSTRUCTED

DRAWN

DESIGN

STATUS: **AS CONSTRUCTED**

APPROVED: DANIEL COLLINS RPEQ 18631

FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE: 1:500 / 1:1000 — 10 5 0 10 20 — A1 / A3

CLIENT: **CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED**

ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: **WOODLINKS VILLAGE - STAGE 10**

COOLINGWOOD DRIVE, COOLINGWOOD PARK

DRAWING TITLE: **ROADWORKS AND DRAINAGE LAYOUT PLAN**

PROJECT No.	DRAWING No.	REVISION
18-0176	104	C

CONTROL LINE SETOUT - ROAD 12

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
CT	36.239	5860.214	3513.122	188°55'00.00"			
TC	140.390	5844.071	3410.230	188°55'00.00"			
IP 3	149.422	5842.288	3398.868		R = -11.500	18.064	90°00'00.00"
CT	158.454	5853.649	3397.086	98°55'00.00"			
TC	247.991	5942.105	3383.208	98°55'00.00"			
IP 4	259.285	5953.428	3381.431		R = 54.000	22.588	23°58'01.07"
CT	270.579	5963.053	3375.208	122°53'01.07"			
TC	322.234	6006.431	3347.163	122°53'01.07"			
IP 5	331.266	6016.089	3340.920		R = 11.500	18.064	90°00'00.00"
CT	340.298	6009.845	3331.262	212°53'01.07"			
TC	458.355	5945.748	3232.121	212°53'01.07"			

CONTROL LINE SETOUT - DRIVEWAY 02

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	5841.375	3401.916	245°04'45.49"			
TC	5.634	5836.266	3399.542	245°04'45.49"			
IP 2	8.217	5833.852	3398.421		R = 8.750	5.168	33°50'14.52"
CT	10.801	5831.223	3398.833	278°55'00.00"			
IP 3	23.625	5818.554	3400.821	278°55'00.00"			

AS-CONSTRUCTED CERTIFICATION

Signature: ..... Date: 24/03/23

DANIEL COLLINS RPEQ No. 18631

For and on behalf of Colliers International engineering & design pty ltd

CONTROL LINE SETOUT - ROAD 14

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	6010.187	3343.185	60°24'16.95"			
TC	9.959	6018.847	3348.104	60°24'16.95"			
IP 2	13.322	6021.829	3349.797		R = -14.000	6.725	27°31'15.78"
CT	16.684	6023.690	3352.676	32°53'01.17"			
TC	65.777	6050.344	3393.904	32°53'01.17"			
IP 3	74.321	6056.079	3402.774		R = -11.500	17.088	85°08'06.69"
CT	82.865	6047.727	3409.241	307°44'54.49"			
TC	197.610	5956.998	3479.487	307°44'54.49"			
IP 4	214.979	5934.589	3496.837		R = -16.750	34.740	118°49'54.49"
CT	232.349	5930.196	3468.839	188°55'00.00"			
IP 5	315.099	5917.370	3387.089	188°55'00.00"			

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	17.06.22	CL	AK	ISSUED FOR CONSTRUCTION
B	19.09.22	CL	AK	LOT CAL AND FOOTPATH AMENDED
C	24.03.23	CL	AK	AS CONSTRUCTED

DRAWN

DESIGN

STATUS: **AS CONSTRUCTED**

APPROVED: DANIEL COLLINS RPEQ 18631

FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE: 1:500 / 1:1000 — 10 5 0 10 20 — A1 / A3

CLIENT: **CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED**

ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: **WOODLINKS VILLAGE - STAGE 10**

COOLINGWOOD DRIVE, COOLINGWOOD PARK

DRAWING TITLE: **SURVEY SETOUT AND KERB TYPES LAYOUT PLAN**

PROJECT No.	DRAWING No.	REVISION
18-0176	105	C

ASSUMED PAVEMENT DETAILS (SUBJECT TO CBR TESTING)

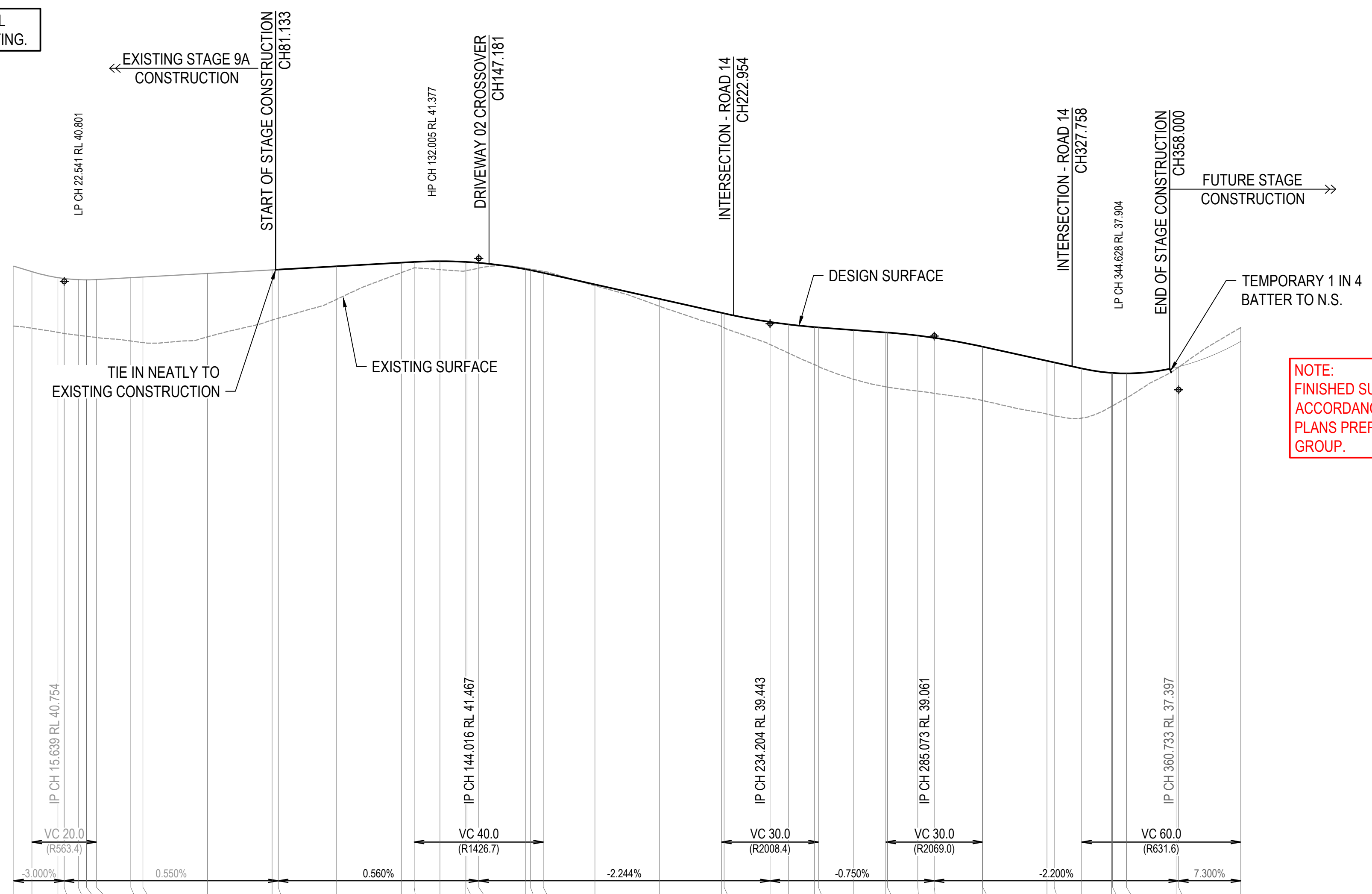
ROAD	ROAD CLASSIFICATION	DESIGN ESAs	ASSUMED CBR	SURFACING	BASE	SUB BASE	LOWER SUB BASE	TOTAL DEPTH
ROAD 12	ACCESS STREET	1.0×10^5	3	35mm	125mm	100mm	160mm	420mm

NOTE: THIS PAVEMENT DESIGN IS PRELIMINARY ONLY BASED ON AN ASSUMED CBR. THE CONTRACTOR SHALL SUPPLY THE SUPERINTENDENT WITH SUBGRADE TEST RESULTS NECESSARY FOR FINAL PAVEMENT DESIGN

AS-CONSTRUCTED PAVEMENT DETAILS

LOCATION	SECTION	ROAD CLASS	DESIGN CBR	TOTAL PAVEMENT DEPTH	A C	BASE COURSE TYPE (2.1)	UPPER SUB-BASE TYPE (2.3)	LOWER SUB-BASE TYPE (2.5)	SUBGRADE TREATEMENT
ROAD 12	CH80 - CH160	A1	5%	360mm	35mm	125mm	100mm	100mm	-
ROAD 12	CH160 - CH344	A1	4.5%	360mm	35mm	125mm	100mm	100mm	-

PAVEMENT DESIGN SUBJECT TO COUNCIL APPROVAL FOLLOWING INSITU CBR TESTING.



NOTE:
FINISHED SURFACE LEVELS IN ACCORDANCE WITH THE AS-CONSTRUCTED PLANS PREPARED BY SAUNDERS HAVILL GROUP.

DATUM RL 21.0

CHAINAGES	CUT (-) / FILL	LHS LIP LEVEL	RHS LIP LEVEL	DESIGN SURFACE	EXISTING SURFACE
0.000	1.853	41.185	41.199	41.223	39.371
5.639	1.751	40.980	40.968	41.054	39.303
13.700	1.694	40.770	40.648	40.870	39.176
15.639	1.702	40.743	40.738	40.843	39.141
20.000	1.720	40.706	40.701	40.807	39.086
22.541	1.745	40.700	40.695	40.801	39.055
25.639	1.792	40.704	40.704	40.809	39.017
36.239	1.960	40.762	40.762	40.868	38.908
40.000	2.029	40.783	40.783	40.888	38.859
60.000	1.961	40.893	40.893	40.998	39.037
80.000	1.551	41.003	41.003	41.108	39.557
81.913	1.507	41.007	41.007	41.119	39.612
100.000	1.021	41.108	41.108	41.220	40.199
120.000	0.310	41.220	41.220	41.332	41.022
124.016	0.182	41.243	41.243	41.355	41.173
132.005	0.258	41.265	41.265	41.377	41.119
140.000	0.271	#	41.243	41.355	41.084
140.390	0.260	#	41.241	41.352	41.092
144.016	0.160	#	41.215	41.326	41.166
158.454	-0.030	#	41.020	41.132	41.162
160.000	-0.033	#	40.991	41.102	41.135
164.016	-0.048	40.906	40.906	41.018	41.066
180.000	0.038	40.547	40.547	40.659	40.621
200.000	0.227	40.099	40.099	40.210	39.984
219.204	0.423	#	39.668	39.780	39.356
220.000	0.444	#	39.650	39.762	39.317
234.204	0.697	#	39.387	39.499	38.802
240.000	0.888	39.309	39.309	39.421	38.533
247.991	1.162	39.228	39.228	39.340	38.178
249.204	1.215	39.219	39.219	39.330	38.116
260.000	1.523	39.138	39.138	39.250	37.726
270.073	1.684	39.062	39.062	39.174	37.490
270.579	1.688	39.058	39.058	39.170	37.482
280.000	1.717	38.964	38.964	39.076	37.359
285.073	1.717	38.895	38.895	39.007	37.290
300.000	1.666	38.621	38.621	38.733	37.067
300.073	1.666	38.620	38.620	38.731	37.066
320.000	1.647	#	#	38.293	36.647
322.234	1.651	#	#	38.244	36.593
330.733	1.539	#	#	38.057	36.518
340.000	1.036	#	#	37.921	36.885
340.298	1.018	#	#	37.919	36.901
344.628	0.758	37.798	37.792	37.904	37.146
360.000	0.046	37.985	37.979	38.091	38.045
360.733	0.012	38.004	37.998	38.109	38.097
380.000	-0.429	38.788	38.783	38.895	39.323

HORIZONTAL CURVES: R30.000, R-11.500, R54.000, R11.500

REFER INTERSECTION DRAWINGS FOR LIP LEVELS

ROAD 12

AS-CONSTRUCTED CERTIFICATION
Signature: .... Date: 24/03/23
DANIEL COLLINS RPEQ No. 18631
For and on behalf of Colliers International engineering & design pty ltd

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	17.06.22	CL	AK	ISSUED FOR CONSTRUCTION
B	24.03.23	CL	AK	AS CONSTRUCTED

DRAWN
DESIGN
STATUS: **AS CONSTRUCTED**
APPROVED: DANIEL COLLINS RPEQ 18631
FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE: 1:1000 A1 / 1:2000 A3 HORIZONTAL (10 0 10 20 30 40 50); 1:100 A1 / 1:200 A3 VERTICAL (2 1 0 2 4)

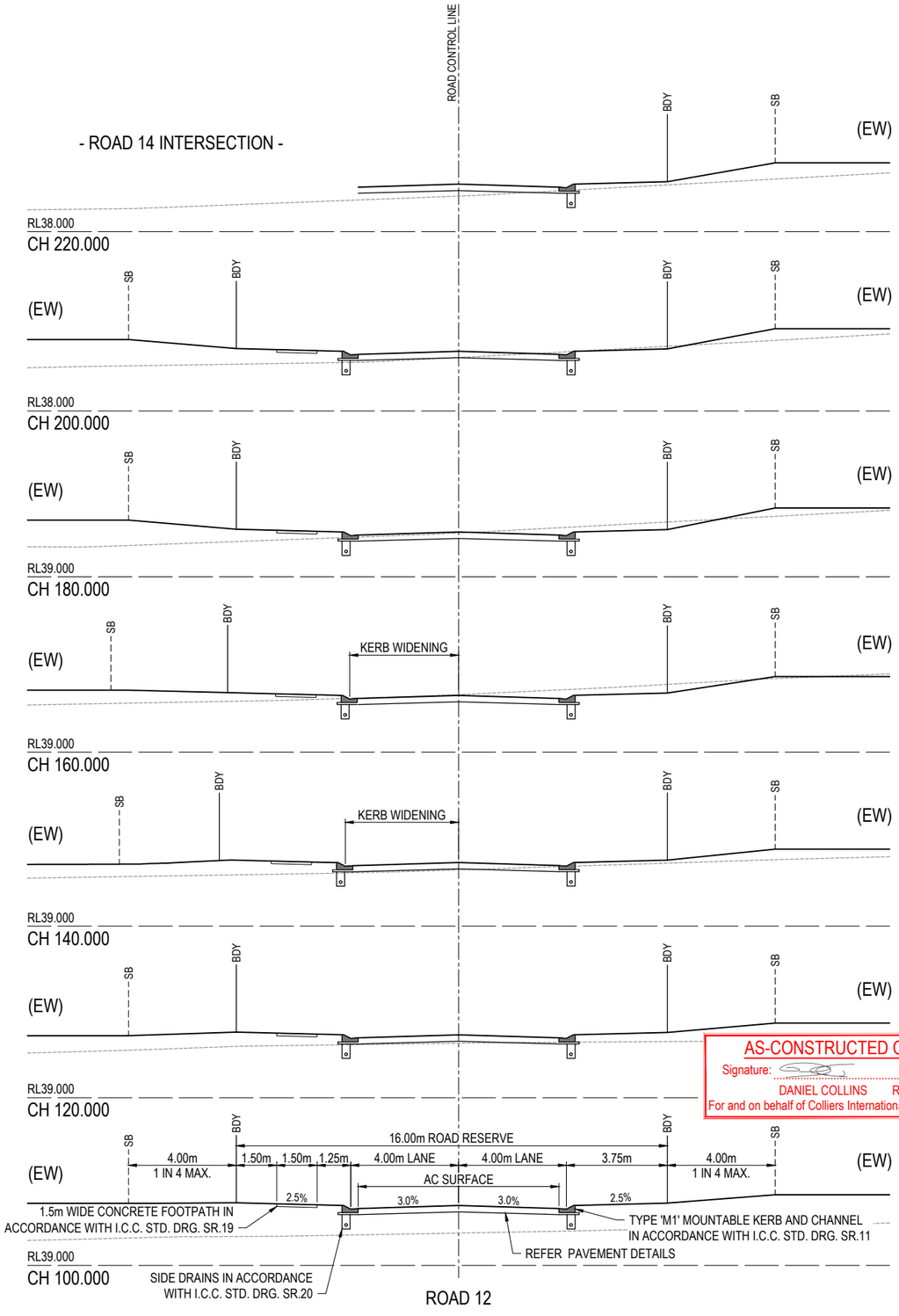
CLIENT: **CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED**
ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: **WOODLINKS VILLAGE - STAGE 10**
COOLINGWOOD DRIVE, COOLINGWOOD PARK

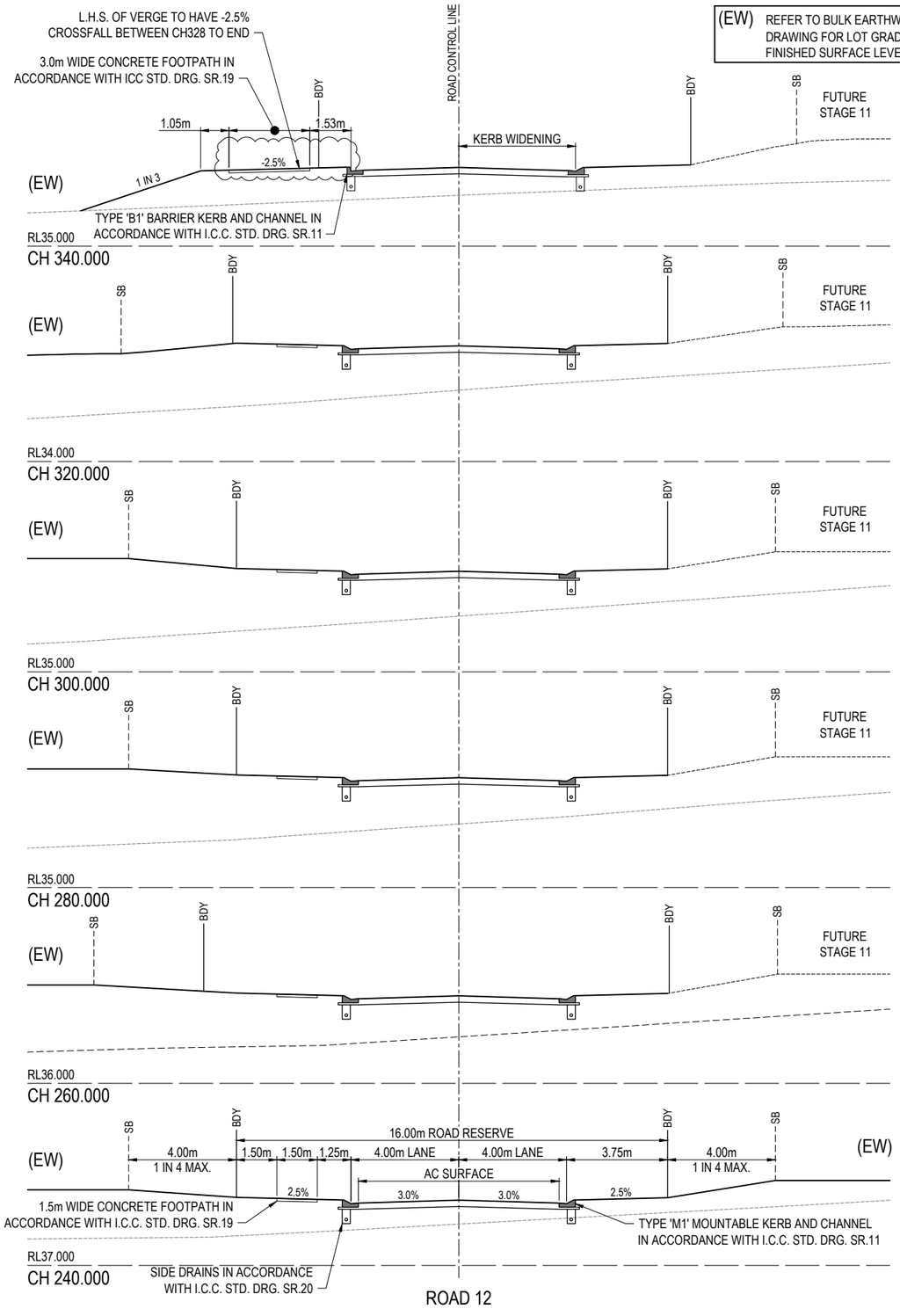
DRAWING TITLE: **ROAD 12 LONGITUDINAL SECTION**

PROJECT No. **18-0176** | DRAWING No. **106** | REVISION **B**

- ROAD 14 INTERSECTION -



ROAD 12



ROAD 12

AS-CONSTRUCTED CERTIFICATION
Signature: Date: 24/03/23
DANIEL COLLINS RPEQ No. 18631
For and on behalf of Colliers International engineering & design pty ltd

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	17.06.22	CL	AK	ISSUED FOR CONSTRUCTION
B	19.09.22	CL	AK	FOOTPATH AMENDED
C	24.03.23	CL	AK	AS CONSTRUCTED

DRAWN
DESIGN
STATUS: AS CONSTRUCTED
APPROVED: DANIEL COLLINS RPEQ 18631
FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE: 1:100 1 0 1 2 3 4 5 A1; 1:200 A3

CLIENT: CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED

ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: WOODLINKS VILLAGE - STAGE 10
COOLINGWOOD DRIVE, COOLINGWOOD PARK

DRAWING TITLE: ROAD 12 CROSS SECTIONS

PROJECT No. 18-0176 | DRAWING No. 107 | REVISION C

ASSUMED PAVEMENT DETAILS (SUBJECT TO CBR TESTING)

ROAD	ROAD CLASSIFICATION	DESIGN ESAs	ASSUMED CBR	SURFACING	BASE	SUB BASE	LOWER SUB BASE	TOTAL DEPTH
ROAD 14	ACCESS STREET	1.0×10^5	3	35mm	125mm	100mm	160mm	420mm

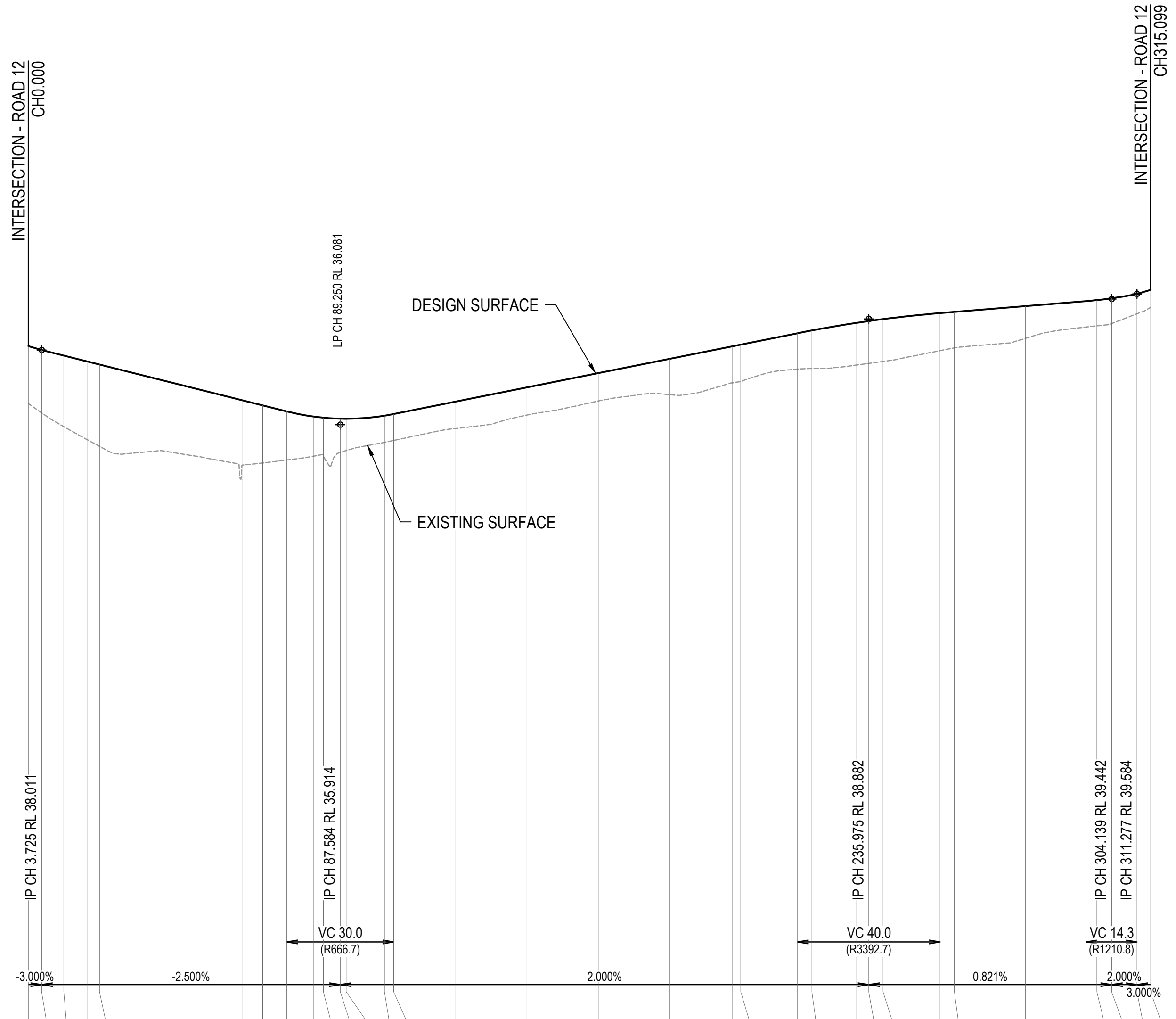
NOTE: THIS PAVEMENT DESIGN IS PRELIMINARY ONLY BASED ON AN ASSUMED CBR. THE CONTRACTOR SHALL SUPPLY THE SUPERINTENDENT WITH SUBGRADE TEST RESULTS NECESSARY FOR FINAL PAVEMENT DESIGN

PAVEMENT DESIGN SUBJECT TO COUNCIL APPROVAL FOLLOWING INSITU CBR TESTING

AS-CONSTRUCTED PAVEMENT DETAILS

LOCATION	SECTION	ROAD CLASS	DESIGN CBR	TOTAL PAVEMENT DEPTH	A C	BASE COURSE TYPE (2.1)	UPPER SUB-BASE TYPE (2.3)	LOWER SUB-BASE TYPE (2.5)	SUBGRADE TREATEMENT
ROAD 14	CH0.0- CH60	A1	3.5%	395mm	35mm	125mm	100mm	135mm	-
ROAD 14	CH60- CH160	A1	10%	260mm	35mm	125mm	100mm	100mm	-
ROAD 14	CH160- CH220	A1	7%	275mm	35mm	125mm	115mm	-	-
ROAD 14	CH220- END	A1	3.5%	395mm	35mm	125mm	100mm	135mm	-

NOTE:
FINISHED SURFACE LEVELS IN ACCORDANCE WITH THE AS-CONSTRUCTED PLANS PREPARED BY SAUNDERS HAVILL GROUP.



DATUM RL 19.0

CHAINAGES	CUT (-) / FILL	LHS LIP LEVEL	RHS LIP LEVEL	DESIGN SURFACE	EXISTING SURFACE
0.000	1.615	#	#	38.122	36.507
3.725	1.761	#	#	38.011	36.249
9.959	1.995	#	#	37.855	35.860
16.684	2.201	37.539	37.580	37.687	35.486
20.000	2.295	37.492	37.497	37.604	35.309
40.000	1.959	36.992	36.997	37.104	35.145
60.000	1.822	36.492	36.497	36.604	34.782
65.777	1.618	#	36.353	36.459	34.841
72.584	1.364	#	36.183	36.289	34.925
80.000	1.114	#	36.038	36.145	35.031
82.865	1.076	#	36.005	36.111	35.035
87.584	0.944	35.972	35.977	36.083	35.139
89.250	0.891	35.969	35.974	36.081	35.189
100.000	0.747	36.056	36.061	36.167	35.420
102.584	0.740	36.102	36.108	36.214	35.474
120.000	0.755	36.451	36.456	36.562	35.808
140.000	0.777	36.851	36.856	36.962	36.186
160.000	0.782	37.251	37.256	37.362	36.580
180.000	1.003	37.651	37.656	37.762	36.759
197.610	1.026	#	38.008	38.115	37.088
200.000	1.032	#	38.056	38.162	37.130
215.975	1.006	#	38.375	38.482	37.476
220.000	1.066	#	38.448	38.560	37.494
232.349	1.183	#	38.658	38.770	37.587
235.975	1.187	38.711	38.711	38.823	37.636
240.000	1.188	38.766	38.766	38.877	37.689
255.975	1.053	38.934	38.934	39.046	37.993
260.000	1.006	38.967	38.967	39.079	38.073
280.000	0.904	39.132	39.132	39.243	38.340
297.001	0.727	39.271	39.271	39.383	38.656
300.000	0.722	39.300	39.300	39.411	38.690
304.139	0.710	#	#	39.463	38.753
311.277	0.557	#	#	39.584	39.027
315.099	0.494	#	#	39.699	39.205

HORIZONTAL CURVES: R-14.000, R-11.500, R-16.750

REFER INTERSECTION DRAWINGS FOR LIP LEVELS

ROAD 14

AS-CONSTRUCTED CERTIFICATION

Signature: .... Date: 24/03/23
DANIEL COLLINS RPEQ No. 18631
For and on behalf of Colliers International engineering & design pty ltd

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	17.06.22	CL	AK	ISSUED FOR CONSTRUCTION
B	24.03.23	CL	AK	AS CONSTRUCTED

DRAWN
DESIGN

STATUS: **AS CONSTRUCTED**

APPROVED: DANIEL COLLINS RPEQ 18631
FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

SCALE
1:1000 / 1:2000 — 10 0 10 20 30 40 50 — A1 / A3 — HORIZONTAL
1:100 / 1:200 — 2 1 0 2 4 — A1 / A3 — VERTICAL

CLIENT: **CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED**

ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP
PH: 1300 123 744

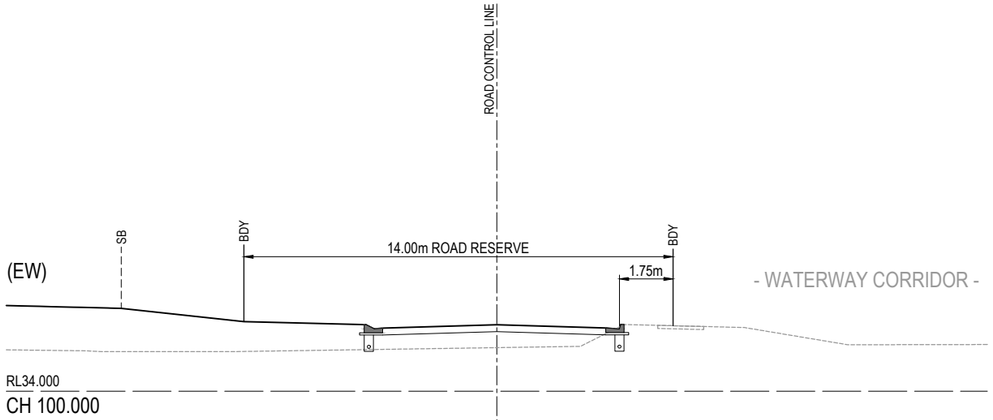
PROJECT NAME: **WOODLINKS VILLAGE - STAGE 10**
COOLINGWOOD DRIVE,
COOLINGWOOD PARK

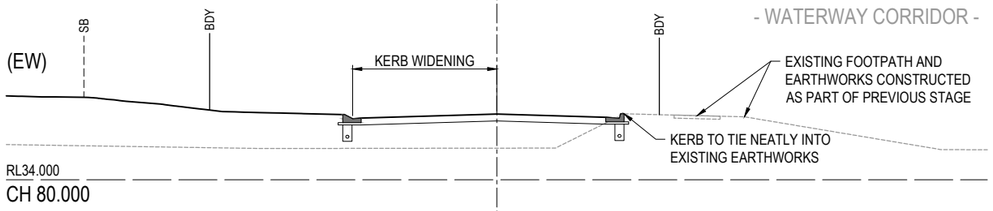
DRAWING TITLE: **ROAD 14 LONGITUDINAL SECTION**

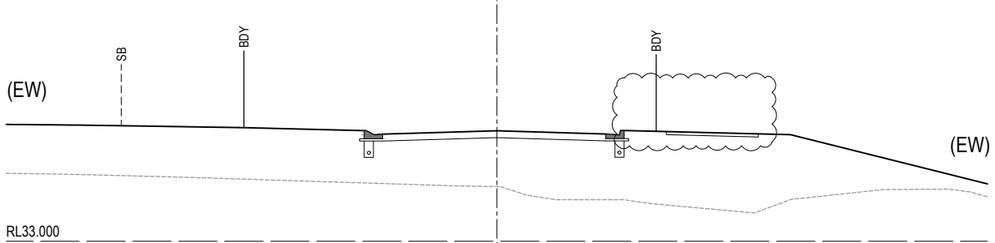
PROJECT No. **18-0176** | DRAWING No. **108** | REVISION **B**

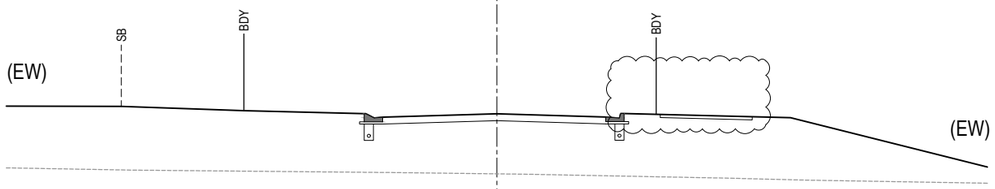
(EW) REFER TO BULK EARTHWORKS DRAWING FOR LOT GRADING AND FINISHED SURFACE LEVELS

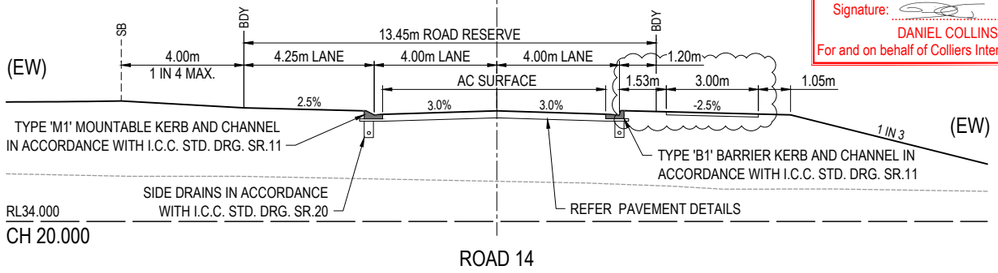
BATTER 1:6 OR STEEPER ARE TO BE VEGETATED AND CERTIFIED AS STABLE BY AN EXPERIENCED AND SUITABLY QUALIFIED RPEQ ENGINEER.





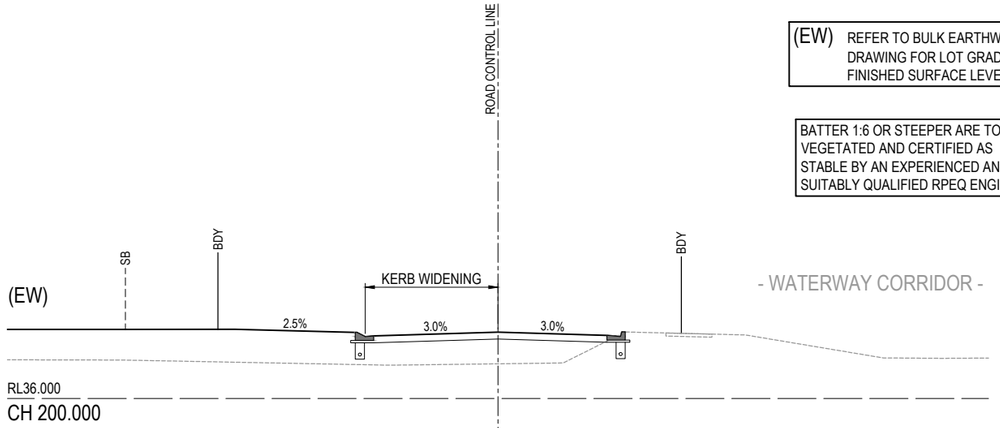


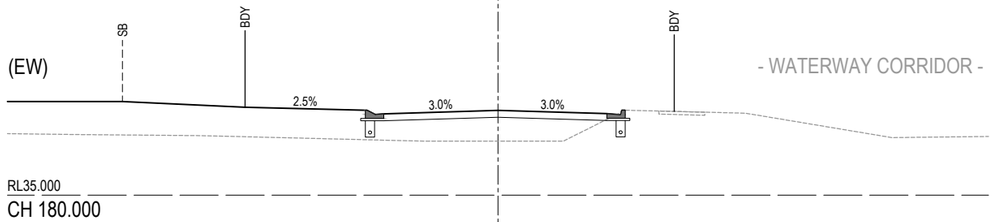


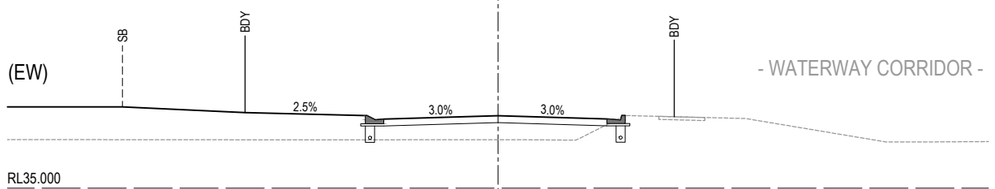


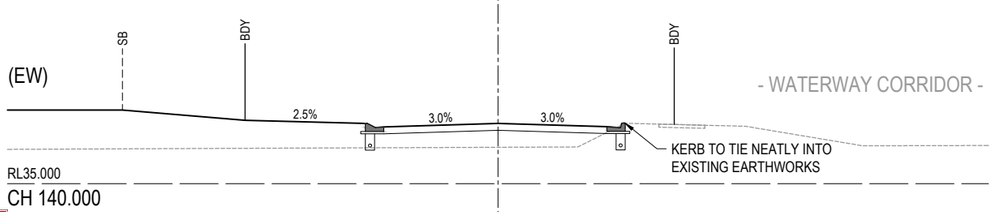
ROAD 14

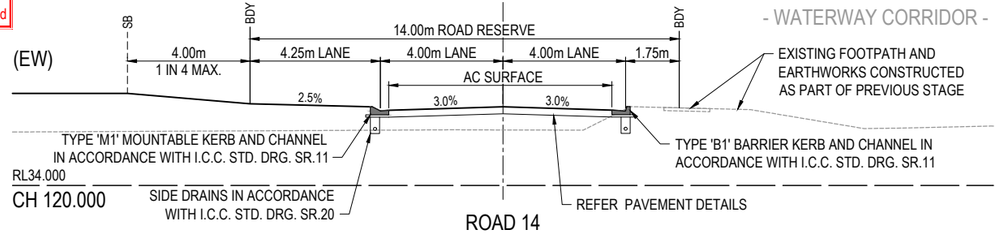
AS-CONSTRUCTED CERTIFICATION
Signature: ..... Date: 24/03/23
DANIEL COLLINS RPEQ No. 18631
For and on behalf of Colliers International engineering & design pty ltd











ROAD 14

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	17.06.22	CL	AK	ISSUED FOR CONSTRUCTION
B	19.09.22	CL	AK	FOOTPATH AMENDED
C	24.03.23	CL	AK	AS CONSTRUCTED

DRAWN

DESIGN

STATUS: **AS CONSTRUCTED**

APPROVED: DANIEL COLLINS RPEQ 18631

FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE
1:100 1 0 1 2 3 4 5 A1
1:200 A3

CLIENT: **CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED**

ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: **WOODLINKS VILLAGE - STAGE 10**

COOLINGWOOD DRIVE, COOLINGWOOD PARK

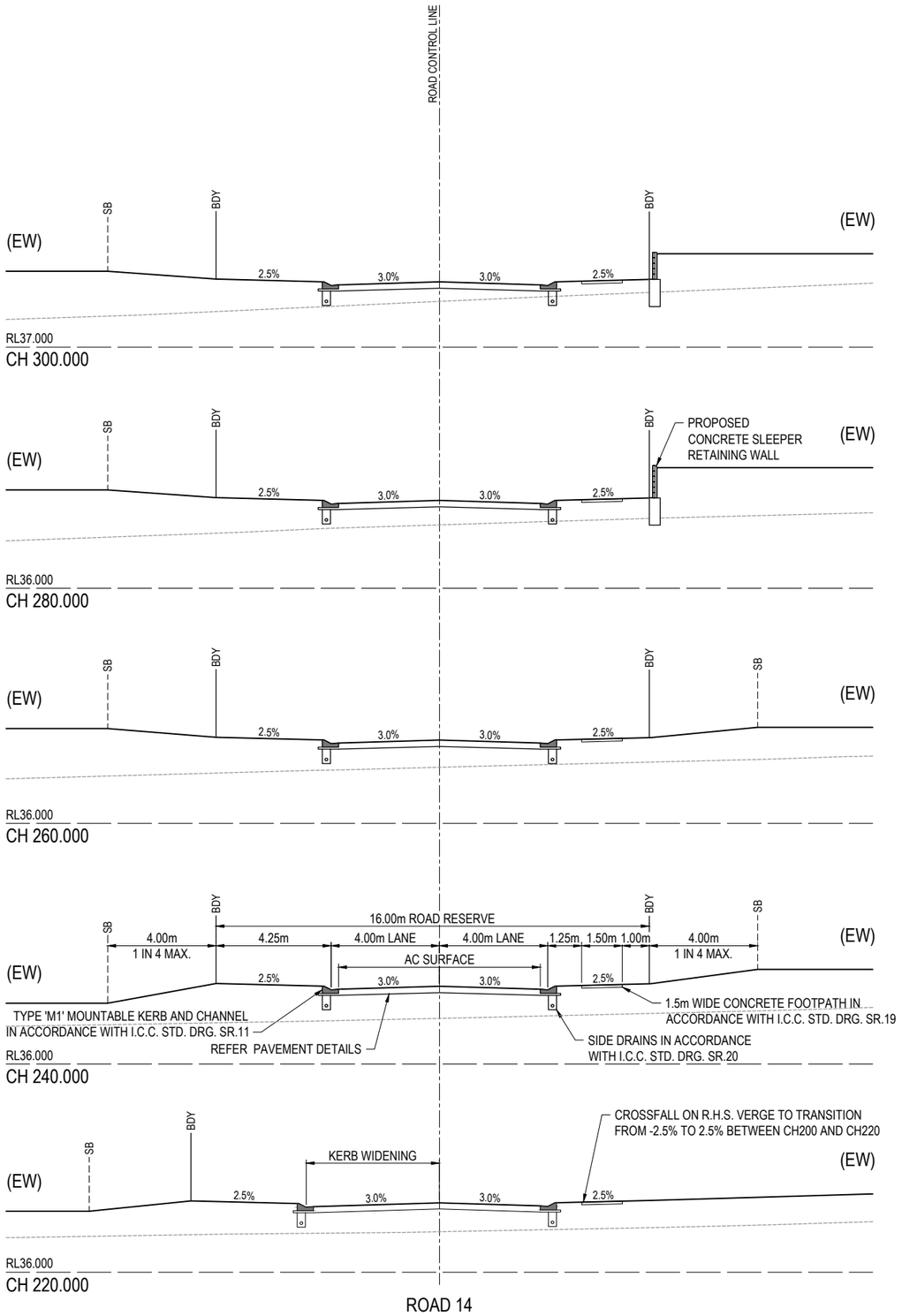
DRAWING TITLE: **ROAD 14 CROSS SECTIONS SHEET 1 OF 2**

PROJECT No.	DRAWING No.	REVISION
18-0176	109	C

(EW) REFER TO BULK EARTHWORKS DRAWING FOR LOT GRADING AND FINISHED SURFACE LEVELS

RETAINING WALLS DO NOT FORM PART OF THIS APPROVAL.

BATTER 1:6 OR STEEPER ARE TO BE VEGETATED AND CERTIFIED AS STABLE BY AN EXPERIENCED AND SUITABLY QUALIFIED RPEQ ENGINEER.



ROAD 14

AS-CONSTRUCTED CERTIFICATION
Signature: ..... Date: 24/03/23
DANIEL COLLINS RPEQ No. 18631
For and on behalf of Colliers International engineering & design pty ltd

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	17.06.22	CL	AK	ISSUED FOR CONSTRUCTION
B	24.03.23	CL	AK	AS CONSTRUCTED

DRAWN

DESIGN

STATUS: **AS CONSTRUCTED**

APPROVED: DANIEL COLLINS RPEQ 18631

FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE: 1:100 / 1:200 — 1 0 1 2 3 4 5 — A1 / A3

CLIENT: **CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED**

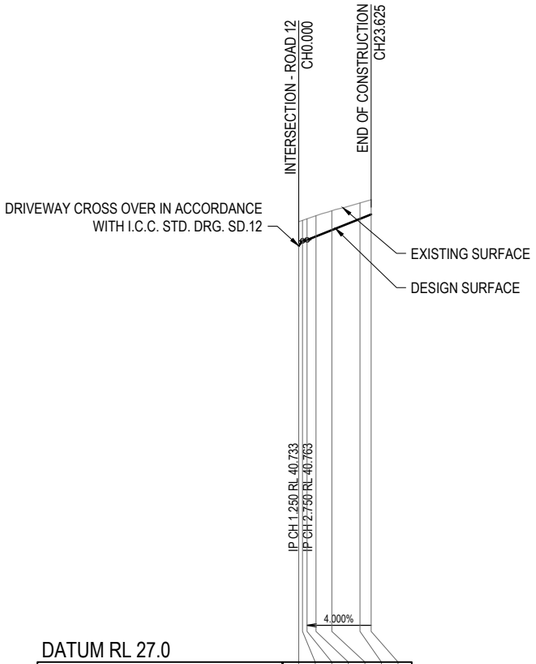
ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: **WOODLINKS VILLAGE - STAGE 10**

COOLINGWOOD DRIVE, COOLINGWOOD PARK

DRAWING TITLE: **ROAD 14 CROSS SECTIONS SHEET 2 OF 2**

PROJECT No.	DRAWING No.	REVISION
18-0176	110	B

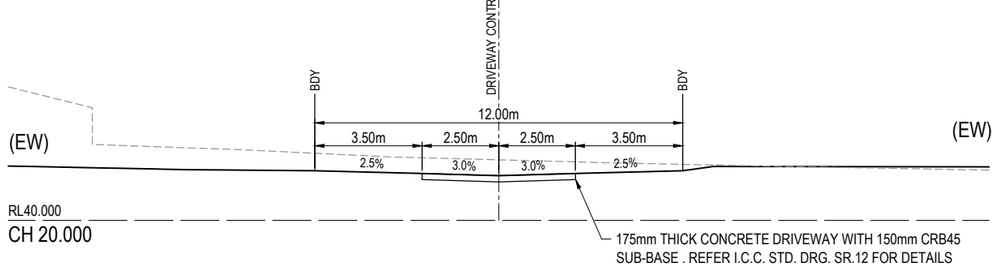


NOTE:
FINISHED SURFACE LEVELS IN ACCORDANCE WITH THE AS-CONSTRUCTED PLANS PREPARED BY SAUNDERS HAVILL GROUP.

DATUM RL 27.0

CUT (-) / FILL	-0.786	-0.670	-0.692	-0.677	-0.677	-0.631	-0.519	-0.479
LHS LIP LEVEL	DRIVEWAY CROSSOVER			40.953	41.160	41.528	41.673
RHS LIP LEVEL				40.953	41.160	41.528	41.673
DESIGN SURFACE	40.574	40.733	40.763	40.878	41.085	41.453	41.598
EXISTING SURFACE	41.360	41.403	41.455	41.556	41.716	41.972	42.077
CHAINAGES	0.000	1.250	2.750	5.634	10.801	20.000	23.625
HORIZONTAL CURVES	R8.750						

DRIVEWAY 02



AS-CONSTRUCTED CERTIFICATION
Signature: ..... Date: 24/03/23
DANIEL COLLINS RPEQ No. 18631
For and on behalf of Colliers International engineering & design pty ltd

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	17.06.22	CL	AK	ISSUED FOR CONSTRUCTION
B	24.03.23	CL	AK	AS CONSTRUCTED

DRAWN
DESIGN

STATUS: **AS CONSTRUCTED**

APPROVED: DANIEL COLLINS RPEQ 18631
FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE
1:100 1 0 1 2 3 4 5 A1
1:200 A3
CROSS SECTIONS
1:1000 10 0 10 20 30 40 50 A1
1:2000 A3
HORIZONTAL
1:100 1 0 1 2 3 4 5 A1
1:200 A3
VERTICAL

CLIENT: **CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED**

ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP
PH: 1300 123 744

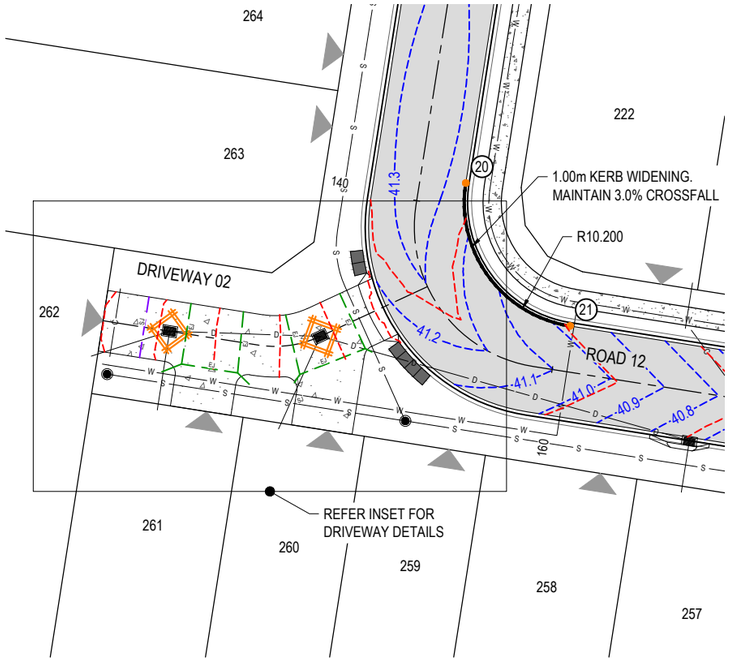
PROJECT NAME: **WOODLINKS VILLAGE - STAGE 10**
COOLINGWOOD DRIVE,
COOLINGWOOD PARK

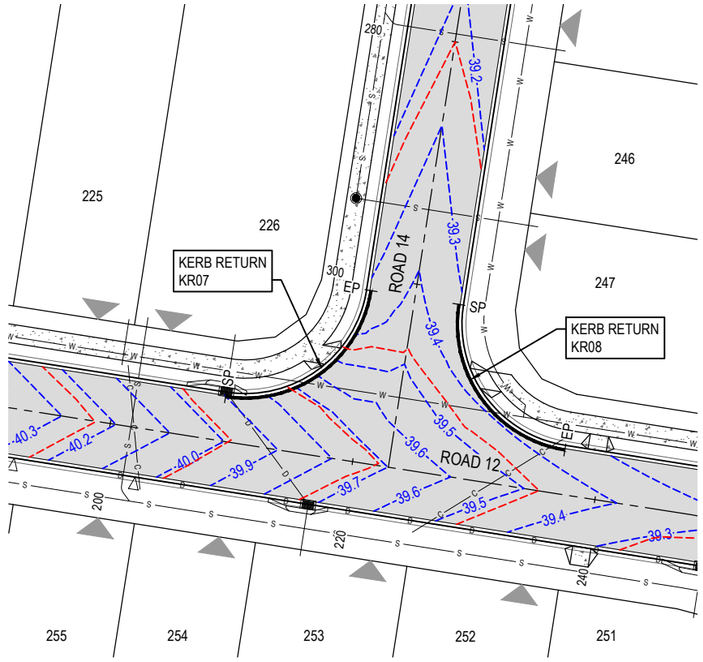
DRAWING TITLE: **DRIVEWAY 02 LONGITUDNAL SECTION AND CROSS SECTION**

PROJECT No.	DRAWING No.	REVISION
18-0176	111	B

KERB WIDENING SETOUT 1

NUMBER	EASTING	NORTHING
20	5848.127	3412.048
21	5856.623	3400.390



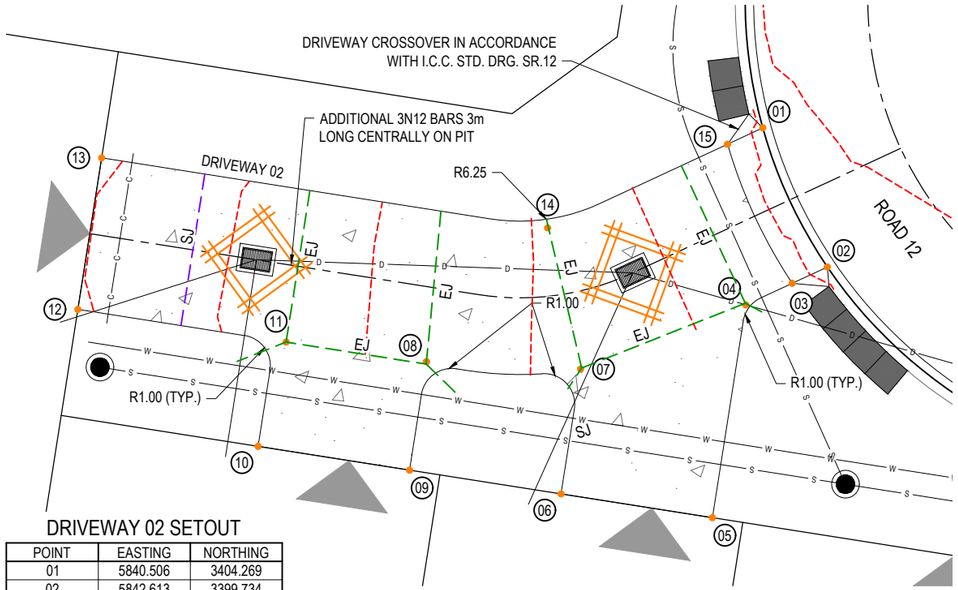


LEGEND

- PROPOSED ROAD CONTROL LINE
- PROPOSED KERB INVERT LINE
- PROPOSED KERB TRANSITION LOCATION
- 01 PROPOSED KERB SETOUT NODE
- PROPOSED CONCRETE PATH AND PRAM RAMP
- PROPOSED NEW ROAD PAVEMENT
- INDICATIVE DRIVEWAY LOCATION
- 53.4 PROPOSED PAVEMENT CONTOUR (0.2m INTERVAL)
- D D PROPOSED STORMWATER DRAINAGE PIPE
- D D EXISTING STORMWATER DRAINAGE PIPE
- S S PROPOSED SEWERAGE MAIN
- S S EXISTING SEWERAGE MAIN
- W W PROPOSED WATER MAIN
- W W EXISTING WATER MAIN
- C C C PROPOSED WATER CONDUIT
- PROPOSED KERB SETOUT LINE
- SP PROPOSED KERB SETOUT START POINT
- EP PROPOSED KERB SETOUT END POINT
- EJ PROPOSED EXPANSION/CONSTRUCTION JOINT
- SJ PROPOSED SAWN CONTRACTION JOINT
- TRIMMER BARS - N12 BARS 2000 LONG
  50 COVER TO CORNER

ASCON LEGEND

- AS CONSTRUCTED CONTOUR



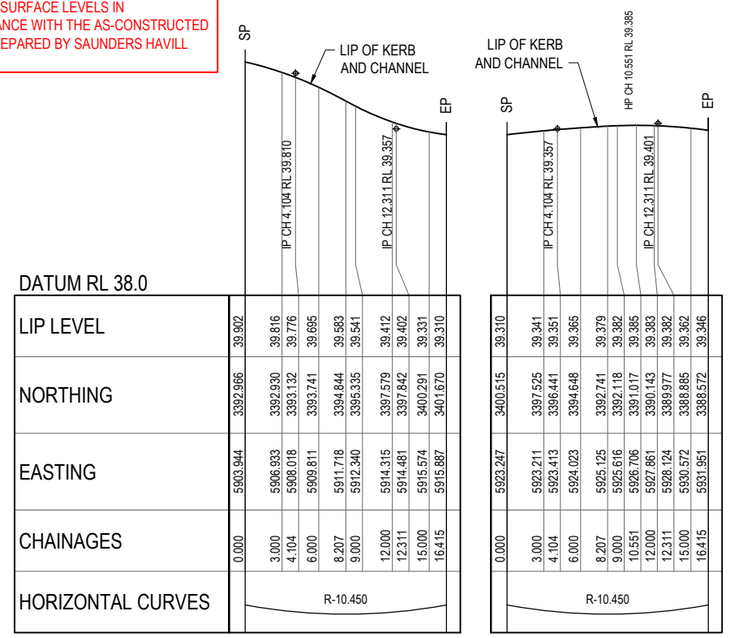
DRIVEWAY 02 SETOUT

POINT	EASTING	NORTHING
01	5840.506	3404.269
02	5842.613	3399.734
03	5841.465	3399.201
04	5839.953	3398.498
05	5838.864	3391.561
06	5833.925	3392.336
07	5834.563	3396.404
08	5829.540	3396.646
09	5828.985	3393.111
10	5824.046	3393.886
11	5824.958	3397.286
12	5818.167	3398.351
13	5818.942	3403.291
14	5833.489	3401.008
15	5839.358	3403.735

INSET DETAIL

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

NOTE:
FINISHED SURFACE LEVELS IN ACCORDANCE WITH THE AS-CONSTRUCTED PLANS PREPARED BY SAUNDERS HAVILL GROUP.



DATUM RL 38.0

LIP LEVEL	39.902	39.816	39.776	39.695	39.583	39.541	39.412	39.402	39.331	39.310
NORTHING	3392.966	3392.930	3393.132	3393.741	3394.844	3395.335	3397.579	3397.842	3400.291	3401.670
EASTING	5903.944	5906.633	5908.018	5909.811	5911.718	5912.340	5914.315	5914.481	5915.574	5915.887
CHAINAGES	0.000	3.000	4.104	6.000	8.207	9.000	12.000	12.311	15.000	16.415
HORIZONTAL CURVES		R-10.450								

KR07

LIP LEVEL	39.310	39.341	39.351	39.365	39.379	39.382	39.385	39.383	39.382	39.362	39.346
NORTHING	3400.515	3397.525	3396.441	3394.648	3392.741	3392.118	3391.017	3390.143	3389.977	3388.885	3388.572
EASTING	5923.247	5923.211	5923.413	5924.023	5925.125	5925.616	5926.706	5927.861	5928.124	5930.572	5931.961
CHAINAGES	0.000	3.000	4.104	6.000	8.207	9.000	10.551	12.000	12.311	15.000	16.415
HORIZONTAL CURVES		R-10.450									

KR08

1:250 5 0 5 10 A1
1:500 A3
LAYOUT

WARNING! - EXISTING SERVICES

EXTREME CARE SHOULD BE TAKEN WHEN EXCAVATING IN THIS AREA. THE FOLLOWING EXISTING SERVICES ARE LIKELY TO BE PRESENT IN THE VICINITY OF THE SITE:

- ELECTRICAL CABLES
- TELECOMMUNICATIONS CABLES
- GAS MAINS
- WATER MAINS
- SEWER MAINS

THE CONTRACTOR SHOULD CONTACT THE SERVICE PROVIDER FOR FURTHER INFORMATION AND SATISFY THEMSELVES OF ANY SPECIFIC TREATMENT OR REQUIREMENTS.

AS-CONSTRUCTED CERTIFICATION

Signature: Date: 24/03/23
DANIEL COLLINS RPEQ No. 18631
For and on behalf of Colliers International engineering & design pty ltd

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	17.06.22	CL	AK	ISSUED FOR CONSTRUCTION
B	24.03.23	CL	AK	AS CONSTRUCTED

DRAWN
DESIGN
STATUS: AS CONSTRUCTED
APPROVED: DANIEL COLLINS RPEQ 18631
FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE
1:100 1 0 1 2 3 4 5 A1
1:200 A3
LAYOUT
1:250 5 0 5 10 A1
1:500 A3
HORIZONTAL
1:25 0.25 0 0.25 0.5 0.75 1 1.25 A1
1:50 A3
VERTICAL

CLIENT: CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED
ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744
PROJECT NAME: WOODLINKS VILLAGE - STAGE 10
COOLINGWOOD DRIVE, COOLINGWOOD PARK
DRAWING TITLE: INTERSECTION DETAILS LAYOUT PLAN SHEET 1 OF 2
PROJECT No. 18-0176
DRAWING No. 112
REVISION B

REFER SHEET 1 FOR LEGEND

WARNING! - EXISTING SERVICES

EXTREME CARE SHOULD BE TAKEN WHEN EXCAVATING IN THIS AREA. THE FOLLOWING EXISTING SERVICES ARE LIKELY TO BE PRESENT IN THE VICINITY OF THE SITE:

- ELECTRICAL CABLES
- TELECOMMUNICATIONS CABLES
- GAS MAINS
- WATER MAINS
- SEWER MAINS

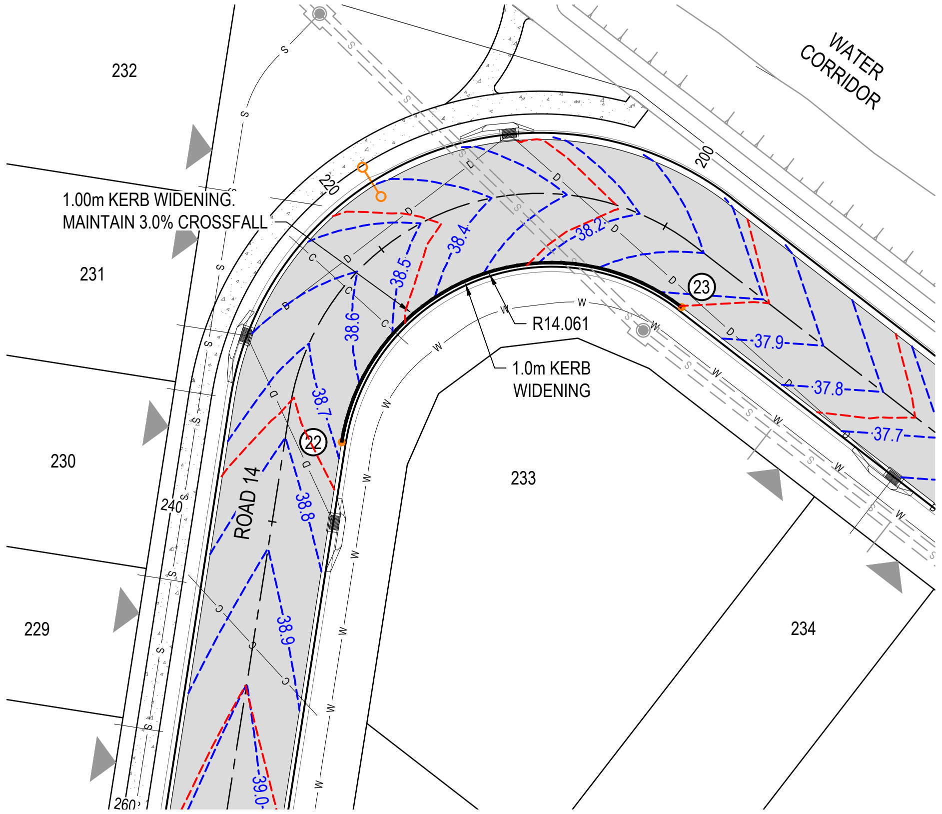
THE CONTRACTOR SHOULD CONTACT THE SERVICE PROVIDER FOR FURTHER INFORMATION AND SATISFY THEMSELVES OF ANY SPECIFIC TREATMENT OR REQUIREMENTS.

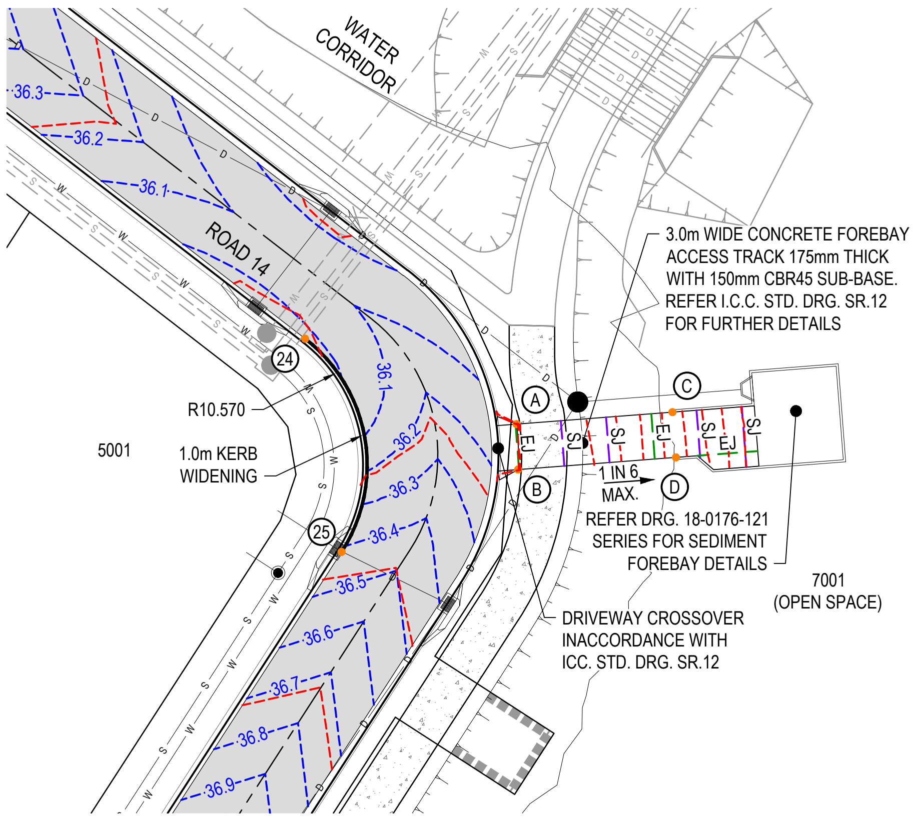
KERB WIDENING SETOUT 2

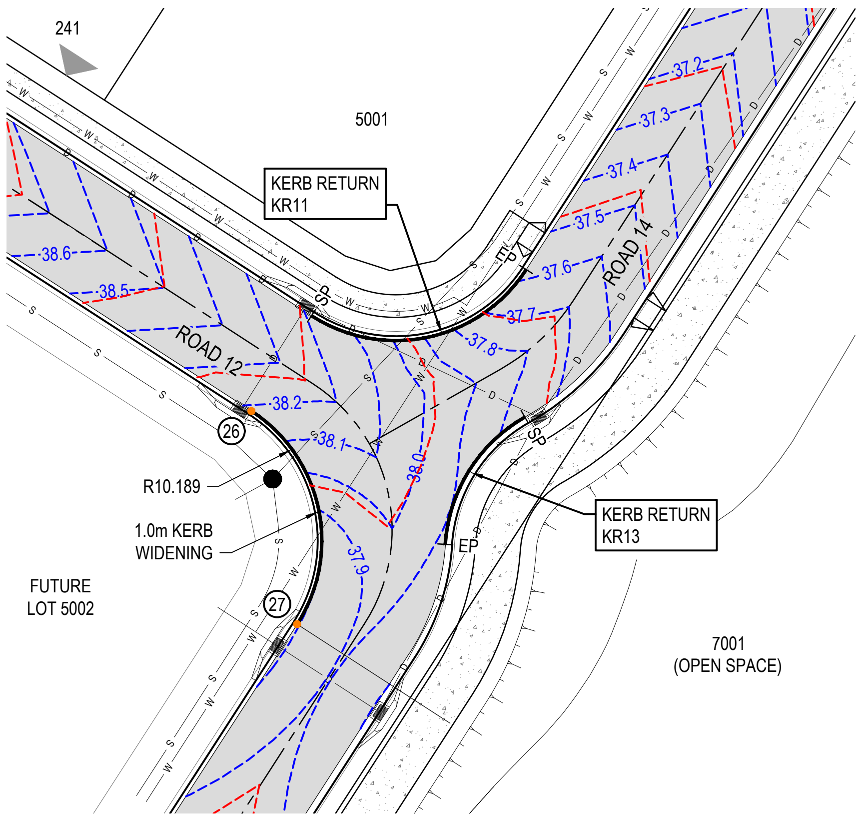
NUMBER	EASTING	NORTHING
22	5933.604	3466.530
23	5956.103	3475.468
24	6043.417	3407.867
25	6045.822	3393.770
26	6002.382	3345.346
27	6005.406	3331.257

ACCESS TRACK SETOUT

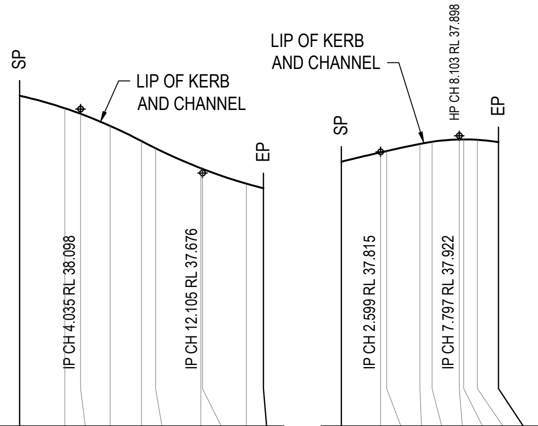
POINT	EASTING	NORTHING
A	6057.388	3402.224
B	6057.492	3399.223
C	6067.699	3403.015
D	6067.928	3400.024







NOTE:
FINISHED SURFACE LEVELS IN ACCORDANCE WITH THE AS-CONSTRUCTED PLANS PREPARED BY SAUNDERS HAVILL GROUP.



DATUM RL 36.0

KR11

LIP LEVEL	38.187	38.104	38.068	37.987	37.887	37.840	37.707	37.703	37.606	37.575
NORTHING	3351.649	3350.408	3350.171	3350.003	3350.231	3350.467	3351.762	3351.821	3353.778	3354.699
EASTING	6006.354	6009.074	6010.081	6012.036	6014.090	6014.989	6017.683	6017.770	6019.891	6020.562
CHAINAGES	0.000	3.000	4.035	6.000	8.070	9.000	12.000	12.105	15.000	16.140
HORIZONTAL CURVES		R-10.275								

KR13

LIP LEVEL	37.750	37.812	37.822	37.869	37.883	37.898	37.898	37.895	37.880
NORTHING	3344.972	3343.433	3343.151	3341.428	3340.733	3339.080	3338.788	3337.917	3336.534
EASTING	6020.521	6018.435	6018.150	6016.792	6016.391	6015.693	6015.603	6015.389	6015.206
CHAINAGES	0.000	2.599	3.000	5.198	6.000	7.797	8.103	9.000	10.396
HORIZONTAL CURVES		R-10.450							

AS-CONSTRUCTED CERTIFICATION

Signature: .... Date: 24/03/23

DANIEL COLLINS RPEQ No. 18631

For and on behalf of Colliers International engineering & design pty ltd

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	17.06.22	CL	AK	ISSUED FOR CONSTRUCTION
B	24.03.23	CL	AK	AS CONSTRUCTED

DRAWN

DESIGN

STATUS: **AS CONSTRUCTED**

APPROVED: DANIEL COLLINS RPEQ 18631

FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE: 1:250 A1 / 1:500 A3 — 5 0 5 10 HORIZONTAL; 1:25 A1 / 1:50 A3 — 0.25 0 0.25 0.5 0.75 1 1.25 VERTICAL

CLIENT: **CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED**

ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: **WOODLINKS VILLAGE - STAGE 10**

COOLINGWOOD DRIVE, COOLINGWOOD PARK

DRAWING TITLE: **INTERSECTION DETAILS LAYOUT PLAN SHEET 2 OF 2**

PROJECT No. **18-0176** DRAWING No. **113** REVISION **B**

NOTES:

1. ALL SIGNS AND LINEMARKING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND I.C.C. STANDARDS.
2. TRAFFIC SIGN POSTS SHALL BE IN ACCORDANCE WITH I.C.C. STANDARD DRAWINGS.
3. STREET NAME SIGN SHALL BE IN ACCORDANCE WITH I.C.C. STANDARD DRAWINGS.
4. CONTRACTOR TO ENSURE SIGN LOCATIONS ARE CLEAR OF FUTURE DRIVEWAY LOCATIONS - LOCATE ON PB OR MID BLOCK.
5. RRPM'S TO BE INSTALLED TO SUIT NEW LANE LINES IN ACCORDANCE WITH M.U.T.C.D. REQUIREMENTS

AS-CONSTRUCTED CERTIFICATION

Signature: Date: 24/03/23

DANIEL COLLINS RPEQ No. 18631

For and on behalf of Colliers International engineering & design pty ltd

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
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DESIGN

STATUS: AS CONSTRUCTED

APPROVED: DANIEL COLLINS RPEQ 18631

FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE: 1:500 / 1:1000 — 10 5 0 10 20 — A1 / A3

CLIENT: CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED

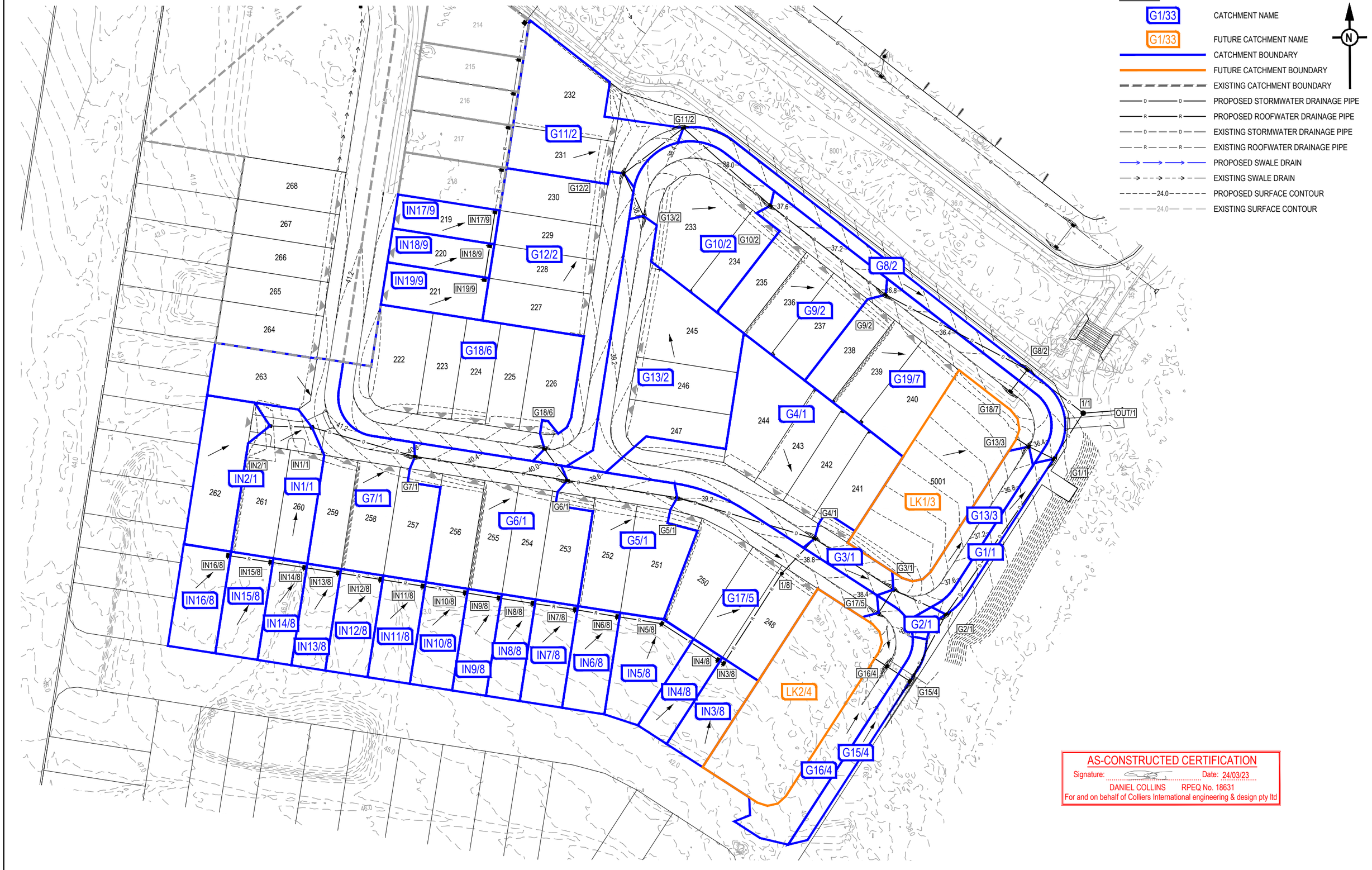
ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: WOODLINKS VILLAGE - STAGE 10

COOLINGWOOD DRIVE, COOLINGWOOD PARK

DRAWING TITLE: SIGNS AND LINEMARKING LAYOUT PLAN

PROJECT No.	DRAWING No.	REVISION
18-0176	114	B



AS-CONSTRUCTED CERTIFICATION

Signature: ..... Date: 24/03/23

DANIEL COLLINS RPEQ No. 18631

For and on behalf of Colliers International engineering & design pty ltd

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B	24.03.23	CL	AK	AS CONSTRUCTED

DRAWN

DESIGN

STATUS: **AS CONSTRUCTED**

APPROVED: DANIEL COLLINS RPEQ 18631

FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE: 1:500 / 1:1000 — 10 5 0 10 20 — A1 / A3

CLIENT: **CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED**

ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: **WOODLINKS VILLAGE - STAGE 10**

COOLINGWOOD DRIVE, COOLINGWOOD PARK

DRAWING TITLE: **STORMWATER DRAINAGE CATCHMENT LAYOUT PLAN**

PROJECT No.	DRAWING No.	REVISION
18-0176	115	B

STORMWATER STRUCTURE NOTE:

STANDARD ROUND MANHOLES LESS THAN 3.0m DEEP:
CONSTRUCT IN ACCORDANCE WITH THE LOCAL AUTHORITY STANDARDS.

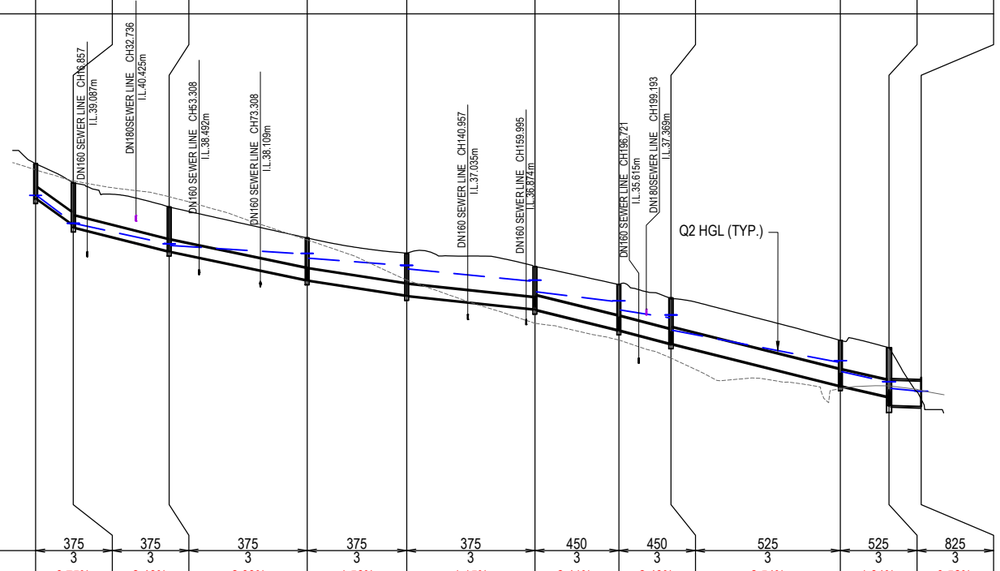
STANDARD ROUND MANHOLES 3.0m > 5.3m DEEP:
CONSTRUCT IN ACCORDANCE WITH TMR STD DRAWINGS 1307 AND 1308.

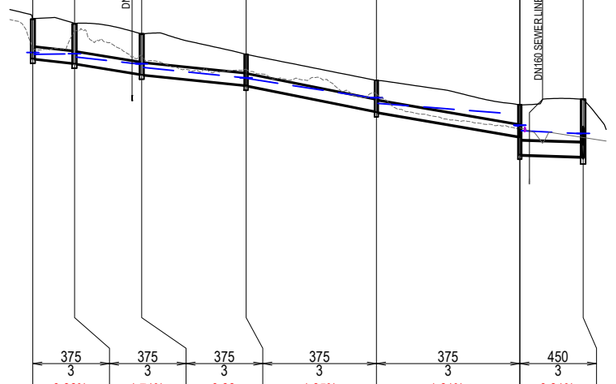
STANDARD ROUND MANHOLES GREATER THAN 5.3m DEEP:
SHALL BE STRUCTURALLY DESIGNED (CERTIFIED) AND CONSTRUCTED BY CONTRACTOR ON A CASE BY CASE BASIS.

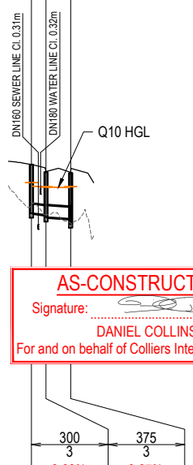
ROUND EXTENDED (900mm MAX) MANHOLES:
CONSTRUCT IN ACCORDANCE WITH PEAK URBAN STD DRAWINGS S-101 & S-102.

RECTANGULAR STRUCTURE (SPECIAL):
SHALL BE STRUCTURALLY DESIGNED (CERTIFIED) AND CONSTRUCTED BY CONTRACTOR ON A CASE BY CASE BASIS.

NOTE:
PIPE FLOWS ARE REPRESENTING Q10 EVENT #







AS-CONSTRUCTED CERTIFICATION
Signature: ..... Date: 24/03/23
DANIEL COLLINS RPEQ No. 18631
For and on behalf of Colliers International engineering & design pty ltd

STRUCTURE NAME	IN2/1	IN1/1	G7/1	G6/1	G5/1	G4/1	G3/1	G2/1	G1/1	1/1	OUT/1
STRUCTURE DESCRIPTION	STD FIELD INLET TYPE 2 (INVERTED GRATED LID) 900x600	STD FIELD INLET TYPE 2 (INVERTED GRATED LID) 900x600 WITH INVERTED GRATED LID	STD TYPE A GULLY LIL: 2.4m LINTEL: TYPE S	STD TYPE A GULLY LIL: 2.4m LINTEL: TYPE S	STD TYPE A GULLY LIL: 2.4m LINTEL: TYPE S	STD TYPE A GULLY LIL: 2.4m LINTEL: TYPE S	STD TYPE A GULLY LIL: 2.4m LINTEL: TYPE S	STD TYPE A GULLY LIL: 2.4m LINTEL: TYPE S	STD TYPE A GULLY LIL: 2.4m LINTEL: TYPE S	STD MANHOLE 1200mm DIA	HEADWALL
PIPE SIZE (mm)	375	375	375	375	375	450	450	525	525	825	
PIPE CLASS	3	3	3	3	3	3	3	3	3	3	
PIPE GRADE (%)	6.75% ~~6.60%~~	2.40% ~~2.44%~~	2.09% ~~2.04%~~	1.56% ~~1.49%~~	1.15% ~~1.03%~~	2.41% ~~2.39%~~	2.49% ~~2.48%~~	2.54% ~~2.45%~~	1.84% ~~2.12%~~	0.52% ~~0.30%~~	
PIPE SLOPE (1 in X)	~~15.15~~ 14.82	~~40.94~~ 41.67	~~48.98~~ 47.77	~~67.08~~ 64.17	~~86.84~~ 86.98	~~41.92~~ 41.51	~~40.30~~ 40.19	~~40.74~~ 39.35	~~47.15~~ 54.49	~~333.37~~ 193.86	
FULL PIPE VELOCITY (m/s)	0.19	0.29	0.64	1.37	1.56	1.96	2.18	1.99	2.30	1.29	
PART FULL VELOCITY (m/s)	2.07	1.66	1.95	2.10	1.84	3.00	3.12	3.30	3.21	1.66	
DATUM RL	25.0										
H.G.L IN PIPE & W.S.E IN STRUCTURE	41.083 / 41.071	40.213 / 40.175	40.166	39.500 / 39.504	39.448	39.169 / 39.189	39.035	38.793 / 38.803	38.684	38.279 / 38.317	37.938	37.613 / 37.648	37.345	37.093 / 37.187	36.684	35.641 / 35.694	35.335	34.998 / 35.009	34.788	34.701 / 34.701	34.701
PIPE FLOW (Cumecs)	0.021	0.032	0.071	0.151	0.173	0.311	0.347	0.431	0.499	0.690	
PIPE CAPACITY AT GRADE (Cumecs)	0.451	0.274	0.251	0.214	0.178	0.441	0.449	0.674	0.627	0.787	
DEPTH TO INVERT	~~1.146~~ 1.130	~~1.453~~ 1.470	~~1.449~~ 1.470	~~1.380~~ 1.359	~~1.379~~ 1.400	~~1.290~~ 1.360	~~1.380~~ 1.300	~~1.450~~ 1.362	~~1.402~~ 1.465	~~1.520~~ 1.469	~~1.489~~ 1.550	~~1.470~~ 1.477	~~1.497~~ 1.520	~~1.530~~ 1.468	~~1.488~~ 1.570	~~1.490~~ 1.588	~~1.888~~ 1.820	~~1.240~~ 0.950	~~0.950~~
INVERT LEVEL OF DRAIN	~~40.969~~ 40.970	~~40.038~~ 40.030	~~39.280~~ 39.280	~~38.360~~ 38.335	~~38.315~~ 38.340	~~37.850~~ 37.831	~~37.811~~ 37.840	~~37.370~~ 37.379	~~37.359~~ 37.355	~~36.720~~ 36.706	~~36.686~~ 36.690	~~36.200~~ 36.204	~~36.244~~ 36.240	~~34.860~~ 34.888	~~34.868~~ 34.820	~~34.550~~ 34.531	~~34.231~~ 34.220	~~34.170~~ 34.200	~~34.200~~	
DESIGN SURFACE LEVEL	~~42.100~~ 42.115		~~41.500~~ 41.491	~~40.750~~ 40.703	~~39.740~~ 39.694	~~39.140~~ 39.191	~~38.820~~ 38.761	~~38.240~~ 38.175	~~37.760~~ 37.741	~~36.390~~ 36.356	~~36.040~~ 36.119	~~35.410~~ 35.150									
SETOUT COORDINATES	E 5823.988 N 3399.968	E 5836.266 N 3399.542	E 5866.364 N 3391.042	E 5910.830 N 3384.063	E 5942.900 N 3379.013	E 5982.994 N 3367.079	E 6005.987 N 3352.214	E 6021.368 N 3344.948	E 6052.810 N 3390.350	E 6061.433 N 3403.688	E 6071.870 N 3404.488									
RUNNING CHAINAGE	0.000	11.856 ~~12.286~~ 12.286	30.420 ~~31.275~~ 43.561	43.950 ~~45.010~~ 88.571	31.443 ~~32.465~~ 121.036	40.879 ~~41.833~~ 162.869	26.362 ~~27.380~~ 190.249	16.077 ~~17.010~~ 207.259	54.299 ~~55.227~~ 262.486	14.713 ~~15.882~~ 278.368	9.693 ~~10.468~~ 288.836									
LINE	1										

STRUCTURE NAME	G13/2	G12/2	G11/2	G10/2	G9/2	G8/2	1/1
STRUCTURE DESCRIPTION	STD TYPE A GULLY LIL: 2.4m LINTEL: TYPE S	STD TYPE A GULLY LIL: 2.4m LINTEL: TYPE S	STD TYPE A GULLY LIL: 2.4m LINTEL: TYPE S	STD TYPE A GULLY LIL: 2.4m LINTEL: TYPE S	STD TYPE A GULLY LIL: 2.4m LINTEL: TYPE S	STD TYPE A GULLY (SAG) LIL: 2.4m LINTEL: TYPE S OVER 1200 DIA MANHOLE	STD MANHOLE 1200mm DIA
PIPE SIZE (mm)	375	375	375	375	375	375	450
PIPE CLASS	3	3	3	3	3	3	3
PIPE GRADE (%)	0.86% ~~1.04%~~	1.71% ~~1.55%~~	0.88 ~~1.00%~~	1.95% ~~1.96%~~	1.61% ~~1.68%~~	0.31% ~~0.30%~~	
PIPE SLOPE (1 in X)	~~96.57~~ 116.17	~~58.36~~ 58.32	~~100.50~~ 114.26	~~51.14~~ 51.17	~~59.38~~ 62.20	~~333.33~~ 322.26	
FULL PIPE VELOCITY (m/s)	0.35	0.78	0.94	0.92	1.39	1.23	
PART FULL VELOCITY (m/s)	1.29	1.86	1.65	2.11	2.21	1.23	
DATUM RL	23.0						
H.G.L IN PIPE & W.S.E IN STRUCTURE	37.644 / 37.584	37.601 / 37.608	37.497	37.265 / 37.281	37.159	36.817 / 36.820	36.797	36.150 / 36.173	35.985	35.245 / 35.273	35.094	34.998 / 35.009	34.788
PIPE FLOW (Cumecs)	0.038	0.086	0.104	0.101	0.153	0.195	
PIPE CAPACITY AT GRADE (Cumecs)	0.178	0.219	0.175	0.245	0.228	0.156	
DEPTH TO INVERT	~~1.290~~ 1.320	~~1.298~~ 1.330	~~1.331~~ 1.370	~~1.020~~ 1.080	~~1.020~~ 1.001	~~1.037~~ 1.090	~~1.050~~ 1.029	~~1.624~~ 1.690	~~1.810~~ 1.868	~~1.888~~ 1.820	
INVERT LEVEL OF DRAIN	~~37.443~~ 37.460	~~37.282~~ 37.290	~~36.922~~ 36.890	~~36.563~~ 36.550	~~35.740~~ 35.732	~~35.696~~ 35.670	~~34.930~~ 34.908	~~34.313~~ 34.290	~~34.230~~ 34.251	~~34.231~~ 34.220	
DESIGN SURFACE LEVEL	~~38.780~~ 38.733	~~38.620~~ 38.580	~~38.260~~ 38.253	~~37.630~~ 37.583	~~36.780~~ 36.733	~~35.980~~ 35.937	~~36.040~~ 36.119				
SETOUT COORDINATES	E 5933.050 N 3461.221	E 5927.334 N 3473.579	E 5944.701 N 3486.892	E 5970.152 N 3464.244	E 6003.757 N 3438.225	E 6045.106 N 3416.328	E 6061.433 N 3403.688				
RUNNING CHAINAGE	0.000	12.779 ~~13.616~~ 13.616	20.995 ~~21.882~~ 35.498	33.135 ~~34.069~~ 69.567	41.448 ~~42.500~~ 112.067	46.026 ~~46.790~~ 158.857	19.337 ~~20.648~~ 179.505				
LINE	2						

STRUCTURE NAME	LK1/3	G14/3	G1/1
STRUCTURE DESCRIPTION	CAPPED PIPE CONNECTION	STD TYPE A GULLY LIL: 2.4m LINTEL: TYPE S	STD TYPE A GULLY LIL: 2.4m LINTEL: TYPE S
PIPE SIZE (mm)		300	375
PIPE CLASS		3	3
PIPE GRADE (%)		3.68% ~~1.09%~~	0.67% ~~0.61%~~
PIPE SLOPE (1 in X)		~~91.35~~ 27.18	~~164.35~~ 149.70
FULL PIPE VELOCITY (m/s)		0.90	0.68
PART FULL VELOCITY (m/s)		1.51	1.27
DATUM RL		23.0	
H.G.L IN PIPE & W.S.E IN STRUCTURE	36.045 / 35.924	35.903 / 35.904	35.896 / 35.882 / 35.915 / 35.617
PIPE FLOW (Cumecs)		# 0.064	0.075
PIPE CAPACITY AT GRADE (Cumecs)		0.101	0.137
DEPTH TO INVERT		~~1.588~~ 1.420	~~1.520~~ 1.393	~~1.468~~ 1.520	~~1.520~~ 1.467	~~1.637~~ 1.570
INVERT LEVEL OF DRAIN		~~35.045~~ 35.050	~~34.920~~ 34.993	~~34.918~~ 34.920	~~34.870~~ 34.869	~~34.719~~ 34.820
DESIGN SURFACE LEVEL	~~36.470~~ 36.633	~~36.440~~ 36.386	~~36.390~~ 36.356				
SETOUT COORDINATES	E 6041.603 N 3396.499	E 6045.592 N 3393.920	E 6052.810 N 3390.350				
RUNNING CHAINAGE	-4.750	3.534 ~~4.750~~ 0.000	7.485 ~~8.053~~ 8.053				
LINE	3						

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	17.06.22	CL	AK	ISSUED FOR CONSTRUCTION
B	04.08.22	NS	NS	SWD STRUCTURE DESCRIPTION AMENDED
C	24.03.23	CL	AK	AS CONSTRUCTED

DRAWN
DESIGN
STATUS: AS CONSTRUCTED
APPROVED: DANIEL COLLINS RPEQ 18631
FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE
1:1000 10 0 10 20 30 40 50 A1
1:2000 HORIZONTAL A3
1:100 2 1 0 2 4 A1
1:200 VERTICAL A3

CLIENT: CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED

ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: WOODLINKS VILLAGE - STAGE 10
COOLINGWOOD DRIVE, COOLINGWOOD PARK

DRAWING TITLE: STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 1 OF 2

PROJECT No. 18-0176
DRAWING No. 116
REVISION C

STRUCTURE NAME	LK2/4	G16/4	G15/4	G2/1	G18/6	G6/1	G19/7	G8/2	G17/5	G3/1	IN16/8	IN15/8	IN14/8	IN13/8	IN12/8	IN11/8	IN10/8	IN9/8	IN8/8	IN7/8	IN6/8	IN5/8	IN4/8	IN3/8	1/8	G4/1	IN19/9	IN18/9	IN17/9
STRUCTURE DESCRIPTION	CAPPED END OF LINE	STD TYPE A GULLY (SAG) LIL: 2.4m LINTEL: TYPE S	STD TYPE A GULLY (SAG) LIL: 2.4m LINTEL: TYPE S	STD TYPE A GULLY LIL: 2.4m LINTEL: TYPE S	STD TYPE A GULLY LIL: 2.4m LINTEL: TYPE S	STD TYPE A GULLY LIL: 2.4m LINTEL: TYPE S	STD TYPE A GULLY (SAG) LIL: 2.4m LINTEL: TYPE S	STD TYPE A GULLY (SAG) LIL: 2.4m LINTEL: TYPE S	STD TYPE A GULLY LIL: 2.4m LINTEL: TYPE S	STD TYPE A GULLY LIL: 2.4m LINTEL: TYPE S	STD FIELD INLET TYPE 2 900x600	STD FIELD INLET TYPE 2 900x600	STD FIELD INLET TYPE 2 900x600	STD FIELD INLET TYPE 2 900x600	STD FIELD INLET TYPE 2 900x600	STD FIELD INLET TYPE 2 900x600	STD FIELD INLET TYPE 2 900x600	STD FIELD INLET TYPE 2 900x600	STD FIELD INLET TYPE 2 900x600	STD FIELD INLET TYPE 2 900x600	STD FIELD INLET TYPE 2 900x600	STD FIELD INLET TYPE 2 900x600	STD FIELD INLET TYPE 2 900x600	STD FIELD INLET TYPE 2 900x600	STD FIELD INLET TYPE 2 900x600	STD FIELD INLET TYPE 2 900x600	ROOFWATER PIT 900mm DIA	STD TYPE A GULLY LIL: 2.4m LINTEL: TYPE S	STD FIELD INLET TYPE 2 (NO APRON) 900x600	STD FIELD INLET TYPE 2 (NO APRON) 900x600	OUTLET
PIPE SIZE (mm)		375	375	375		375		375		375		225 PVC	225 PVC	225 PVC	225 PVC	225 PVC	225 PVC	225 PVC	300 PVC	300 PVC	300 PVC	300 PVC	300 PVC	300 PVC	300 PVC	375		225 PVC	225 PVC
PIPE CLASS		3	3	3		3		3		3																			
PIPE GRADE (%)		0.46% ~~0.55%~~	0.81% ~~0.50%~~	0.90% ~~0.70%~~		3.30% ~~2.18%~~		0.48% ~~0.69%~~		5.49% ~~6.09%~~		0.51% ~~0.50%~~	0.44% ~~0.50%~~	0.76% ~~0.50%~~	0.68% ~~0.50%~~	0.51% ~~0.50%~~	0.61% ~~0.48%~~	0.74% ~~0.52%~~	0.54% ~~0.50%~~	0.51% ~~0.49%~~	0.52% ~~0.50%~~	0.48% ~~0.51%~~	1.98% ~~2.05%~~	1.95% ~~1.05%~~	1.98% ~~1.99%~~	4.07% ~~4.14%~~		0.76% ~~0.49%~~	2.65% ~~0.49%~~
PIPE SLOPE (1 in X)		~~182.69~~ 215.55	~~200.00~~ 122.30	~~142.90~~ 100.07		~~45.84~~ 30.19		~~145.45~~ 207.03		18.20 16.42		198.41 194.38	200.00 229.05	200.00 130.69	200.00 147.36	201.61 194.78	208.33 164.73	192.31 135.34	200.00 184.44	204.93 194.42	201.62 192.167	~~197.54~~ 209.30	~~48.86~~ 50.93	~~95.24~~ 91.25	~~50.36~~ 50.92	~~24.14~~ 24.58		~~204.08~~ 131.14	~~204.08~~ 37.80
FULL PIPE VELOCITY (m/s)		0.61	0.75	0.80		0.42		0.30		0.32		0.22	0.41	0.56	0.72	0.91	1.10	1.29	0.81	0.89	1.00	1.10	1.24	1.32	1.43	0.90		0.19	0.35
PART FULL VELOCITY (m/s)		1.19	1.20	1.39		1.78		1.07		2.35		0.68	0.80	0.87	0.90	0.91	1.10	1.29	1.08	1.09	1.10	1.10	2.07	1.59	2.11	2.77		0.65	0.77
DATUM RL		24.0	24.0			26.0		22.0		24.0		28.0																27.0	
H.G.L IN PIPE & W.S.E IN STRUCTURE	37.347	37.263 ~~37.256~~ 37.256	37.231	37.213 37.225	37.149	37.093 37.187	36.684	39.177	39.169 39.189	39.035	35.292	35.246	35.245 35.273	35.094	37.665	37.616	37.613 37.648	37.345	43.779	43.755	43.725 43.725	43.708	43.684 43.684	43.662	43.597 43.226	43.159	43.108 43.108	43.062	42.981 42.981	42.920	42.781 42.562	42.366	42.218 42.173	42.173	42.138 42.138	42.110	42.018 41.724	41.594	41.527 41.528	41.485	41.399 41.431	41.261	40.894 40.894	40.849	40.821 39.215	38.955	38.280 38.260	38.245	38.103 38.151	37.746	40.781	40.768	40.765 40.765	40.754	40.744 40.744	40.744
PIPE FLOW (Cumecs)		0.068	0.083	0.088		0.047		0.034		0.035		0.009	0.016	0.022	0.029	0.036	0.044	0.051	0.057	0.063	0.070	0.078	0.088	0.093	0.101	0.100		0.008	0.014
PIPE CAPACITY AT GRADE (Cumecs)		0.130	0.124	0.147		0.259		0.145		0.433		0.032	0.032	0.032	0.032	0.032	0.031	0.032	0.068	0.068	0.068	0.069	0.138	0.099	0.136	0.357		0.031	0.031
DEPTH TO INVERT		~~1.610~~ 0.590	~~1.600~~ 1.268	~~1.288~~ 1.340	~~1.390~~ 1.321	~~1.341~~ 1.410	~~1.490~~ 1.477	~~1.497~~ 1.520	~~1.290~~ 1.300	~~1.370~~ 1.359	~~1.379~~ 1.400	~~0.981~~ 1.020	~~1.065~~ 1.029	~~1.624~~ 1.690	~~0.980~~ 0.970	~~1.490~~ 1.469	~~1.489~~ 1.55	~~0.675~~ 0.840	~~0.890~~ 0.738	~~0.758~~ 0.910	~~0.950~~ 0.808	~~0.828~~ 0.970	~~0.950~~ 0.878	~~1.518~~ 1.550	~~0.750~~ 0.730	~~0.751~~ 0.770	~~0.830~~ 0.813	~~0.834~~ 0.860	~~0.830~~ 0.894	~~1.418~~ 1.340	~~0.720~~ 0.720	~~0.795~~ 0.780	~~0.840~~ 0.845	~~0.866~~ 0.890	~~0.950~~ 0.927	~~1.543~~ 1.540	~~0.800~~ 0.805	~~0.825~~ 0.810	~~0.880~~ 0.892	~~0.920~~ 0.930	~~1.130~~ 0.919	~~0.939~~ 1.220	~~1.230~~ 0.960	~~2.841~~ 3.030	~~1.240~~ 1.225	~~1.300~~ 1.370	~~1.350~~ 1.327	~~1.402~~ 1.465	~~0.826~~ 0.810	~~0.88~~ 0.875	~~0.896~~ 0.900	~~0.880~~ 0.945	~~0.945~~ 0.900
INVERT LEVEL OF DRAIN		~~36.525~~ 37.550	~~36.540~~ 36.499	~~36.479~~ 36.480	~~36.420~~ 36.439	~~36.419~~ 36.400	~~36.270~~ 36.264	~~36.244~~ 36.240	~~38.582~~ 38.610	~~38.370~~ 38.335	~~38.315~~ 38.340	~~34.963~~ 34.950	~~34.915~~ 34.908	~~34.313~~ 34.290	~~37.193~~ 37.170	~~36.750~~ 36.706	~~36.686~~ 36.690	~~43.675~~ 43.660	~~43.600~~ 43.612	~~43.592~~ 43.580	~~43.540~~ 43.542	~~43.522~~ 43.320	~~43.450~~ 43.472	~~42.832~~ 42.850	~~42.770~~ 42.770	~~42.749~~ 42.750	~~42.690~~ 42.687	~~42.666~~ 42.660	~~42.590~~ 42.606	~~42.082~~ 42.080	~~42.010~~ 42.030	~~41.955~~ 41.950	~~41.900~~ 41.905	~~41.884~~ 41.850	~~41.790~~ 41.823	~~41.207~~ 41.200	~~41.140~~ 41.145	~~41.125~~ 41.130	~~41.070~~ 41.066	~~41.030~~ 41.020	~~40.650~~ 40.631	~~40.611~~ 40.560	~~40.540~~ 40.590	~~38.709~~ 38.740	~~38.140~~ 38.088	~~38.013~~ 38.010	~~37.470~~ 37.434	~~37.369~~ 37.355	~~40.474~~ 40.490	~~40.420~~ 40.425	~~40.404~~ 40.400	~~40.160~~ 40.355	~~40.355~~ 40.140
DESIGN SURFACE LEVEL	~~38.140~~ 38.135	37.820 ~~37.767~~	37.810 ~~37.760~~	37.760 ~~37.741~~	~~39.910~~ 39.872	39.740 ~~39.694~~	~~35.970~~ 35.944	35.980 ~~35.937~~	~~38.140~~ 38.173	38.240 ~~38.175~~	~~44.500~~ 44.350	44.490 ~~44.350~~	44.490 ~~44.350~~	44.400 ~~44.350~~	43.520 ~~43.500~~	43.520 ~~43.500~~	43.420 ~~43.500~~	42.730 ~~42.750~~	42.740 ~~42.750~~	42.740 ~~42.750~~	41.940 ~~41.950~~	41.950 ~~41.950~~	41.780 ~~41.550~~	41.770 ~~41.550~~	39.380 ~~39.313~~	38.820 ~~38.761~~	~~41.300~~ 41.300	41.300 ~~41.300~~	41.040 ~~41.300~~			
SETOUT COORDINATES	E 6000.146 N 3332.376	E 6004.135 N 3329.798	E 6010.853 N 3325.454	E 6021.368 N 3344.948	E 5904.159 N 3393.210	E 5910.830 N 3384.063	E 6040.209 N 3410.003	E 6045.106 N 3416.328	E 6001.716 N 3345.449	E 6005.987 N 3352.214	E 5811.730 N 3362.161	E 5824.079 N 3360.224	E 5833.958 N 3358.674	E 5843.837 N 3357.124	E 5856.186 N 3355.187	E 5868.535 N 3353.249	E 5880.884 N 3351.312	E 5890.763 N 3349.762	E 5900.642 N 3348.212	E 5913.009 N 3346.390	E 5925.340 N 3344.337	E 5938.415 N 3342.285	E 5954.765 N 3331.714	E 5956.445 N 3330.628	E 5973.425 N 3356.892	E 5982.994 N 3367.079	E 5886.591 N 3442.529	E 5888.141 N 3452.409	E 5889.691 N 3462.288			
RUNNING CHAINAGE	-4.750	2.177 ~~-4.750~~ 0.000	7.338 ~~0.000~~ 8.000	21.015 ~~22.149~~ 30.149	0.000	10.474 ~~11.321~~ 11.321	-4.750	7.246 ~~0.000~~ 3.250	0.000	7.646 ~~0.000~~ 8.000	0.000	11.663 ~~12.500~~ 12.500	9.162 ~~10.000~~ 22.500	9.148 ~~10.000~~ 32.500	11.789 ~~12.500~~ 45.000	11.687 ~~12.500~~ 57.500	11.531 ~~12.500~~ 70.000	9.474 ~~10.000~~ 80.000	9.222 ~~10.000~~ 90.000	11.666 ~~12.501~~ 102.501	11.572 ~~12.501~~ 115.001	12.558 ~~13.235~~ 128.236	18.697 ~~19.470~~ 147.706	1.025 ~~2.000~~ 149.706	30.301 ~~31.275~~ 180.981	13.275 ~~13.976~~ 194.958	0.000	9.180 ~~10.000~~ 10.000	9.071 ~~10.000~~ 20.000			
LINE		4				5		6		7		8																9		

STORMWATER STRUCTURE NOTE:

STANDARD ROUND MANHOLES LESS THAN 3.0m DEEP:
CONSTRUCT IN ACCORDANCE WITH THE LOCAL AUTHORITY STANDARDS.

STANDARD ROUND MANHOLES 3.0m > 5.3m DEEP:
CONSTRUCT IN ACCORDANCE WITH TMR STD DRAWINGS 1307 AND 1308.

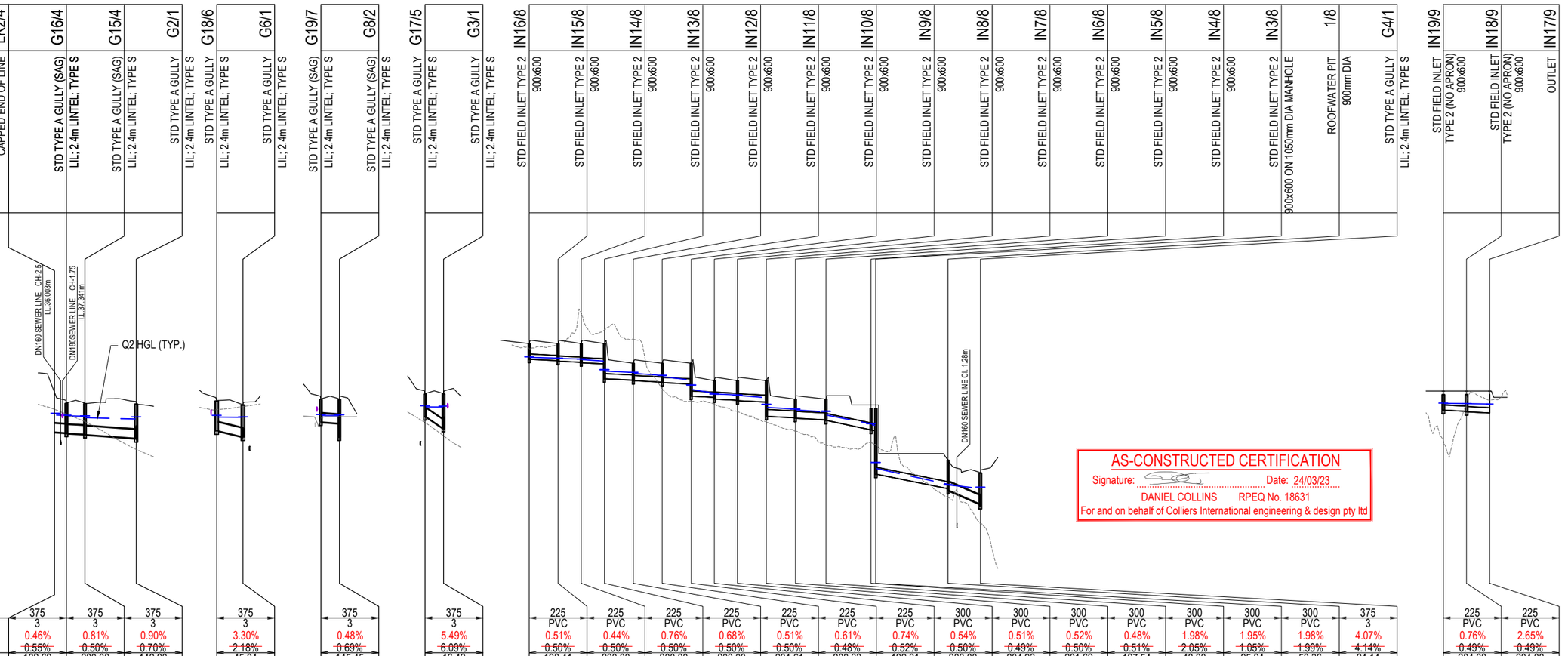
STANDARD ROUND MANHOLES GREATER THAN 5.3m DEEP:
SHALL BE STRUCTURALLY DESIGNED (CERTIFIED) AND CONSTRUCTED BY CONTRACTOR ON A CASE BY CASE BASIS.

ROUND EXTENDED (900mm MAX) MANHOLES:
CONSTRUCT IN ACCORDANCE WITH PEAK URBAN STD DRAWINGS S-101 & S-102.

RECTANGULAR STRUCTURE (SPECIAL):
SHALL BE STRUCTURALLY DESIGNED (CERTIFIED) AND CONSTRUCTED BY CONTRACTOR ON A CASE BY CASE BASIS.

NOTE:

PIPE FLOWS ARE REPRESENTING Q10 EVENT #



AS-CONSTRUCTED CERTIFICATION

Signature: Date: 24/03/23

DANIEL COLLINS RPEQ No. 18631

For and on behalf of Colliers International engineering & design pty ltd

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	17.06.22	CL	AK	ISSUED FOR CONSTRUCTION
B	04.08.22	NS	NS	LK2/4 STRUCTURE REMOVED AND DESCRIPTION AMENDED
C	24.03.23	CL	AK	AS CONSTRUCTED

DRAWN

DESIGN

STATUS: **AS CONSTRUCTED**

APPROVED: DANIEL COLLINS RPEQ 18631

FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE

1:1000 10 0 10 20 30 40 50 A1
1:2000 HORIZONTAL A3

1:100 2 1 0 2 4 A1
1:200 VERTICAL A3

CLIENT: **CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED**

ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: **WOODLINKS VILLAGE - STAGE 10**

COOLINGWOOD DRIVE, COOLINGWOOD PARK

DRAWING TITLE: **STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 2 OF 2**

PROJECT No.	DRAWING No.	REVISION
18-0176	117	C

LOCATION			SUB-CATCHMENT RUNOFF						INLET DESIGN											DRAIN DESIGN											HEAD LOSSES								PART FULL		DESIGN LEVELS							
				Tc	I	A	CA	Qc	Qa								Qg	Qb		Tc	I	CA	Qrat	Q	L	S			Qcap	Vcap & Vt		V2/2g	Ku	hu	Kw	hw	Sf	hf	dn	Vn								
DESIGN ARI	STRUCTURE No.	DRAIN SECTION	CONTRIBUTING CATCHMENT	SUB-CATCHMENT TIME OF CONC.	RAINFALL INTENSITY	SUB-CATCHMENT AREA	EQUIVALENT AREA	SUB-CATCHMENT DISCHARGE	FLOW IN K&C (INC. BYPASS)	HALF ROAD CAPACITY	FLOW WIDTH	FLOW DEPTH	ROAD GRADE AT INLET	ROAD CROSSFALL AT INLET	INLET TYPE	INLET CURVE	FLOW INTO INLET	BYPASS FLOW	BYPASS STRUCTURE No.	CRITICAL TIME OF CONC.	RAINFALL INTENSITY	TOTAL (C x A)	PEAK FLOW	PIPE FLOW	REACH LENGTH	PIPE GRADE	PIPE SIZE	PIPE CLASS	CAPACITY FLOW	CAP. & TRA. VELOCITY	CHART(S) USED	VELOCITY HEAD	U/S HEAD LOSS COEFFICIENT	U/S HEAD LOSS	W.S.E COEFFICIENT	CHANGE IN W.S.E.	PIPE FRICTION SLOPE	PIPE FRICTION HEAD LOSS	NORMAL DEPTH	NORMAL DEPTH VEL	PIPE U/S I.L	PIPE D/S I.L	PIPE U/S H.G.L	PIPE D/S H.G.L	W.S.E	GRATE LEVEL	FREEBOARD	STRUCTURE No.
yrs				min	mm/h	ha	ha	L/s	L/s	L/s	m	m	%	%			L/s	L/s		min	mm/hr	ha	L/s	L/s	m	%	mm		L/s	m/s		m		m		m	%	m	m	m/s	m	m	m	m	m	m	m	
2	IN2/1	A		10	96	0.1	0.07	19	21	79		0.037	5	3	SF2 600x900	4G, 3.3X	21		IN1/1	10	96	0.07	21	21	12.286	6.6	375	3	451	4.08	G1	0.002	7	0.012		0.012	6.99	0.677	0.055	2.07	40.969	40.158	41.071	40.213	41.083	42.115	1.032	IN2/1
100	IN2/1	A		10	232	0.1	0.091	59	66	79		0.087	5	3	SF2 600x900	4G, 3.3X	66		IN1/1	10	232	0.091	66	66	12.286	6.6	375	3	451	4.08	G1	0.018	7	0.128		0.128	2.36	0.345	0.097	2.91	40.969	40.158	41.156	40.866	41.284	42.115	0.831	IN2/1
2	IN1/1	A	IN2/1	10	96	0.056	0.039	10	11	79		0.02	5	3	SF2 600x900	4G, 3.3X	11		G7/1	10.1	96	0.108	32	32	31.275	2.44	375	3	274	2.48	T1/T3	0.004	1.73	0.007	2.06	0.009	2.13	0.702	0.086	1.66	40.038	39.274	40.166	39.5	40.175	41.491	1.316	IN1/1
100	IN1/1	A		10	232	0.056	0.051	33	37	79		0.059	5	3	SF2 600x900	4G, 3.3X	37		G7/1	10.1	231	0.142	103	103	31.275	2.44	375	3	274	2.48	T1/T3	0.044	1.49	0.065	1.67	0.074	0.34	0.107	0.159	2.3	40.038	39.274	40.801	40.694	40.875	41.491	0.616	IN1/1
2	G7/1	A	IN2/1 IN1/1	10	96	0.195	0.136	36	40	402	1.737	0.065	2.24	3	AL2D	2G, 3.3X	40		G6/1	10.36	95	0.245	71	71	45.01	2.04	375	3	251	2.27	G1/T1/T3	0.021	2.5	0.052	2.66	0.056	0.62	0.335	0.136	1.95	39.254	38.335	39.448	39.169	39.504	40.703	1.199	G7/1
100	G7/1	A		10	232	0.195	0.178	115	190	402	3.21	0.107	2.24	3	AL2D	2G, 3.3X	122	68	G6/1	10.36	229	0.32	290	221	45.01	2.04	375	3	251	2.27	G1/T1/T3	0.205	1.39	0.285	1.43	0.292	1.59	0.716	0.274	2.56	39.254	38.335	40.41	39.694	40.702	40.703	0.001	G7/1
2	G6/1	A	G18/6 IN2/1 IN1/1 G7/1	10	96	0.178	0.124	33	36	401	1.664	0.063	2.24	3	AL2D	2G, 3.3X	36		G5/1	10.74	93	0.533	151	151	32.465	1.49	375	3	214	1.94	T1/T3	0.096	1.4	0.134	1.61	0.155	0.74	0.242	0.233	2.1	38.315	37.831	39.035	38.793	39.189	39.694	0.505	G6/1
100	G6/1	A		10	232	0.178	0.163	105	247	401	3.548	0.116	2.24	3	AL2D	2G, 3.3X	-128	374	G5/1	10.74	225	0.697	612	188	32.465	1.49	375	3	214	1.94	T1/T3	0.148	0.72	0.108	0.86	0.128	1.15	0.375	0.273	2.19	38.315	37.831	39.566	39.191	39.694	39.694		G6/1
2	G5/1	A	G18/6 IN2/1 IN1/1 G7/1 G6/1	10	96	0.117	0.082	22	24	241	1.752	0.065	0.84	2.98	AL2D	1G, 3.3X	24		G17/5	11.01	92	0.615	173	173	41.833	1.03	375	3	178	1.61	T1/T3	0.125	0.87	0.109	0.95	0.118	0.97	0.406	0.297	1.84	37.811	37.379	38.684	38.279	38.803	39.191	0.388	G5/1
100	G5/1	A		10	232	0.117	0.107	69	452	241	4.269	0.137	0.84	2.98	AL2D	1G, 3.3X	-10	462	G17/5	11.01	223	0.805	680	169	41.833	1.03	375	3	178	1.61	T1/T3	0.119	0.49	0.058	0.56	0.067	0.92	0.387	0.291	1.84	37.811	37.379	39.114	38.727	39.18	39.191	0.011	G5/1
2	G4/1	A	IN16/8 IN15/8 IN14/8 IN13/8 IN12/8 IN11/8 IN10/8 IN9/8 IN8/8 IN7/8 IN6/8 IN5/8 IN4/8 IN3/8 G18/6 IN2/1 IN1/1 G7/1 G6/1 G5/1	10	96	0.221	0.154	41	45	356	1.916	0.07	1.76	3	AL2D	2G, 3.3X	45		G3/1	11.62	91	1.122	311	311	27.38	2.39	450	3	441	2.77	T3/T6	0.195	1.75	0.341	1.94	0.379	1.19	0.326	0.279	3	37.359	36.706	37.938	37.613	38.317	38.761	0.444	G4/1
100	G4/1	A		10	232	0.221	0.202	130	143	356	3.011	0.101	1.76	3	AL2D	2G, 3.3X	68	75	G3/1	11.62	219	1.469	890	304	27.38	2.39	450	3	441	2.77	T3/T6	0.186	1.49	0.278	1.61	0.3	1.14	0.311	0.275	2.99	37.359	36.706	38.449	38.138	38.749	38.761	0.012	G4/1
2	G3/1	A	G17/5 IN16/8 IN15/8 IN14/8 IN13/8 IN12/8 IN11/8 IN10/8 IN9/8 IN8/8 IN7/8 IN6/8 IN5/8 IN4/8 IN3/8 G18/6 IN2/1 IN1/1 G7/1 G6/1 G5/1 G4/1	10	96	0.026	0.018	5	5	398	0.703	0.036	2.2	3	AL2D	2G, 3.3X	5		G14/3	11.85	90	1.26	347	347	17.01	2.48	450	3	449	2.83	T1/T3	0.243	1.1	0.268	1.25	0.303	1.48	0.252	0.297	3.12	36.686	36.264	37.345	37.093	37.648	38.175	0.527	G3/1
100	G3/1	A		10	232	0.026	0.024	15	92	398	2.435	0.085	2.2	3	AL2D	2G, 3.3X	83	9	G14/3	11.85	217	1.649	1089	407	17.01	2.48	450	3	449	2.83	T1/T3	0.279	1.09	0.304	1.21	0.339	1.7	0.289	0.336	3.2	36.686	36.264	37.834	37.545	38.173	38.175	0.002	G3/1
2	G2/1	A	LK2/4 G16/4 G15/4 G17/5 IN16/8 IN15/8 IN14/8 IN13/8 IN12/8 IN11/8 IN10/8 IN9/8 IN8/8 IN7/8 IN6/8 IN5/8 IN4/8 IN3/8 G18/6 IN2/1 IN1/1 G7/1 G6/1 G5/1 G4/1 G3/1	10	96	0.005	0.004	1	1	358	0.255	0.02	1.95	3.09	AL2D	2G, 3.3X	1		G1/1	11.99	89	1.449	431	431	55.227	2.45	525	3	674	3.11	T6/T9	0.202	2.02	0.409	2.49	0.503	1.89	1.093	0.305	3.3	36.244	34.888	36.684	35.641	37.187	37.741	0.554	G2/1
100	G2/1	A		10	232	0.005	0.005	3	743	358	4.036	0.143	1.95	3.09	AL2D	2G, 3.3X	68	675	G1/1	11.99	216	1.895	1252	520	55.227	2.45	525	3	674	3.11	T9/T10	0.294	1.9	0.56	2.06	0.605	1.46	0.805	0.346	3.43	36.244	34.888	36.985	36.18	37.59	37.741	0.151	G2/1
2	G1/1	A	LK1/3 G14/3 LK2/4 G16/4 G15/4 G17/5 IN16/8 IN15/8 IN14/8 IN13/8 IN12/8 IN11/8 IN10/8 IN9/8 IN8/8 IN7/8 IN6/8 IN5/8 IN4/8 IN3/8 G18/6 IN2/1 IN1/1 G7/1 G6/1 G5/1 G4/1 G3/1 G2/1	10	96	0.022	0.015	4	4	400	0.41	0.033	2.5	3	AL2D	2G, 3.3X	4		G8/2	12.45	88	1.609	499	499	15.882	2.12	525	3	627	2.89	T1/T3	0.271	1.13	0.306	1.33	0.359	2.12	0.337	0.354	3.21	34.868	34.531	35.335	34.998	35.694	36.356	0.662	G1/1
100	G1/1	A		10	232	0.022	0.02	13	689	400	4.038	0.144	2.5	3	AL2D	2G, 3.3X	101	588	G8/2	12.45	213	2.104	1296	659	15.882	2.12	525	3	627	2.89	T1/T3	0.473	1.04	0.494	1.17	0.555	2.35	0.373	0.461	3.27	34.868	34.531	35.686	35.313	36.241	36.356	0.115	G1/1
2	1/1	A	G19/7 G13/2 G12/2 G11/2 G10/2 G9/2 G8/2 LK1/3 G14/3 LK2/4 G16/4 G15/4 G17/5 IN16/8 IN15/8 IN14/8 IN13/8 IN12/8 IN11/8 IN10/8 IN9/8 IN8/8 IN7/8 IN6/8 IN5/8 IN4/8 IN3/8 G18/6 IN2/1 IN1/1 G7/1 G6/1 G5/1 G4/1 G3/1 G2/1												MH1200					12.59	88	2.322	690	690	10.468	0.3	825	3	787	1.47	T6/T9	0.085	2.46	0.209	2.6	0.221	0.84	0.042	0.599	1.66	34.231	34.2	34.788	34.701	35.009	36.119	1.11	1/1
100	1/1	A													MH1200					12.59	212	3.037	1978	961	10.468	0.3	825	3	787	1.47	T6/T9	0.165	2.45	0.404	2.58	0.425	1.1	0.051	0.825	1.8	34.231	34.2	34.909	34.794	35.334	36.119	0.785	1/1
2	OUT/1		G19/7 G13/2 G12/2 G11/2 G10/2 G9/2 G8/2 LK1/3 G14/3 LK2/4 G16/4 G15/4 G17/5 IN16/8 IN15/8 IN14/8 IN13/8 IN12/8 IN11/8 IN10/8 IN9/8 IN8/8 IN7/8 IN6/8 IN5/8 IN4/8 IN3/8 G18/6 IN2/1 IN1/1 G7/1 G6/1 G5/1 G4/1 G3/1 G2/1												HW																														34.701	35.15	0.449	OUT/1
100	OUT/1														HW																														34.794	35.15	0.356	OUT/1
2	G13/2	A		10	96	0.193	0.134	36	38	308	1.911	0.07	1.26	3	AL2D	1G, 3.3X	38		G10/2	10	96	0.134	38	38	13.616	1.04	375	3	178	1.62	G2	0.006	9.7	0.06		0.06	-0.12	0.027	0.118	1.29	37.443	37.302	37.584	37.601	37.644	38.733	1.089	G13/2
100	G13/2	A		10	232	0.193	0.176	113	123	308	3.005	0.101	1.26	3	AL2D	1G, 3.3X	95	28	G10/2	10	232	0.176	123	95	13.616	1.04	375	3	178	1.62	G2	0.038	3.37	0.128		0.128	0.29	0.04	0.195	1.64	37.443	37.302	38.59	38.55	38.718	38.733	0.015	G13/2
2	G12/2	A	G13/2	10	96	0.24	0.168	45	49	307	2.096	0.075	1.29	3.01	AL2D	1G, 3.3X	49		G11/2	10.11	96	0.302	86	86	21.882	1.55	375	3	219	1.98	G2/T9/T10	0.031	3.34	0.104	3.56	0.111	1.06	0.283	0.164	1.86	37.282	36.942	37.497	37.265	37.608	38.58	0.972	G12/2
100	G12/2	A		10	232	0.24	0.22	142	204	307	3.647	0.119	1.29	3.01	AL2D	1G, 3.3X	64	141	G11/2	10.11	231	0.396	275	156	21.882	1.55	375	3	219	1.98	T9/T10	0.102	1.62	0.165	1.82	0.185	0.79	0.173	0.234	2.15	37.282	36.942	38.385	38.212	38.57	38.58	0.01	G12/2
2	G11/2	A	G13/2 G12/2	10	96	0.092	0.064	17	19	311	1.25	0.06	1.62	3.06	AL2D	2G, 3.3X	19		G8/2	10.3	95	0.367	104	104	34.069	1	375	3	175	1.58	T9/T10	0.045	2.37	0.106	2.73	0.123	0.71	0.294	0.208	1.65	36.922	36.583	37.159	36.915	37.281	38.253	0.972	G11/2
100	G11/2	A		10	232	0.092	0.084	54	201	311	3.375	0.123	1.62	3.06	AL2D	2G, 3.3X	37	164	G8/2	10.3	229	0.48	331	189	34.069	1	375	3	175	1.58	T9/T10	0.149	1.64	0.245	1.9	0.284	1.16	0.395	0.375	1.71	36.922	36.583	37.967	37.572	38.251	38.253	0.002	G11/2
2	G10/2	A	G13/2 G12/2 G11/2	10	96	0.136	0.095	25	28	379	1.548	0.06	2	3	AL2D	2G, 3.3X	28		G9/2	10.58	94	0.462	129	129	42.5	1.96	375	3	245	2.22	T1/T3	0.07	1.25	0.087	1.33	0.093	1.68	0.767	0.194	2.25	36.563	35.732	36.828	36.113	36.921	37.583	0.662	G10/2
100	G10/2	A		10	232	0.136	0.125	80	118	379	2.733	0.093	2	3	AL2D	2G, 3.3X	40	78	G9/2	10.58	227	0.605	413	220	42.5	1.96	375	3	245	2.22	T1/T3	0.203	0.84	0.169	0.87	0.177	1.58	0.67	0.278	2.51	36.563	35.732	37.403	36.733	37.581	37.583	0.002	G10/2
2	G9/2	A	G13/2 G12/2 G11/2 G10/2	10	96	0.132	0.092	25	26	379	1.5	0.058	2	3	AL2D	2G, 3.3X	26		G19/7	10.93	93	0.554	153	153	46.79	1.68	375	3	228	2.06	T1/T3	0.098	1.31	0.129	1.51	0.148	1.58	0.774	0.225	2.21	35.696	34.908	35.985	35.245	36.133	36.733	0.6	G9/2
100	G9/2	A		10	232	0.132	0.121	78	161	379	3.078	0.103	2	3	AL2D	2G, 3.3X	-4	165	G19/7	10.93	224	0.725	489	209	46.79	1.68	375	3	228	2.06	T1/T3	0.183	0.68	0.124	0.76	0.139	1.42	0.664	0.283	2.34	35.696	34.908	36.53	35.866	36.669	36.733	0.064	G9/2
2	G8/2	A	G19/7 G13/2 G12/2 G11/2 G10/2 G9/2	10	96	0.064	0.045	12	13	331			0.26	3	SAL2D	SAG	13		LOST	11.32	91	0.713	195	195	20.648	0.3	450	3	156	0.98	T10	0.077	1.96	0.151	2.33	0.178	0.47	0.097	0.45	1.23	34.313	34.251	35.094	34.998	35.273	35.937	0.664	G8/2
100	G8/2	A		10	232	0.064	0.058	38	1108	91		0.15	0.26	3	SAL2D	SAG	91	1017	LOST	11.32	221	0.933	695	315	20.648	0.3	450	3	156	0.98	T10	0.2	1.51	0.301	1.84	0.366	1.22	0.251	0.45	1.98	34.313	34.251	35.564	35.313	35.93	35.937	0.007	G8/2
2	1/1		G19/7 G13/2 G12/2 G11/2 G10/2 G9/2 G8/2 LK1/3 G14/3 LK2/4 G16/4 G15/4 G17/5 IN16/8 IN15/8 IN14/8 IN13/8 IN12/8 IN11/8 IN10/8 IN9/8 IN8/8 IN7/8 IN6/8 IN5/8 IN4/8 IN3/8 G18/6 IN2/1 IN1/1 G7/1 G6/1 G5/1 G4/1 G3/1 G2/1												MH1200																T6/T9		2.46	0.209	2.6	0.221									35.009	36.119	1.11	1/1
100	1/1														MH1200																T6/T9		2.45	0.404	2.58	0.425									35.334	36.119	0.785	1/1
2	LK1/3	A		10	96	0.145	0.108	29	34			0.056		-2.5	SF2 600x900		34			10	96	0.108	64	64	4.75	1.09	300	3	101	1.43	G1	0.042	3.59	0.149		0.149	0.43	0.021	0.173	1.51	35.045	34.993	35.686	35.665	35.835	36.633	0.798	LK1/3
100	LK1/3	A		10	232	0.145	0.14	91	34			0.056		-2.5	SF2 600x900		34			10	232	0.14	34	34	4.75	1.09	300	3	101	1.43	G1	0.012	2.42	0.029		0.029	0.12	0.006	0.12	1.29	35.045	34.993	36.238	36.232	36.267	36.633	0.366	LK1/3
2	G14/3	A	LK1/3	10	96	0.053	0.037	10	11	424	0.978	0.044	2.5	3	AL2D	2G, 3.3X	11		G19/7	10.04	96	0.145	75	75	8.053	0.61	375	3	137	1.24	T1/T3	0.023	0.42	0.01	0.48	0.011	0.18	0.015	0.197	1.27	34.918	34.869	35.655	35.641	35.667	36.386	0.719	G14/3
100	G14/3	A		10	232	0.053	0.048	31	44	424	1.773	0.066	2.5	3	AL2D	2G, 3.3X	44		G19/7	10.04	232	0.189	69	78	8.053	0.61	375	3	137	1.24	G2/T1/T3	0.025	1.45	0.037	1.46	0.037	0.2	0.016	0.203	1.28	34.918	34.869	36.196	36.18	36.233	36.386	0.153	G14/3
2	G1/1		LK1/3 G14/3 LK2/4 G16/4 G15/4 G17/5 IN16/8 IN15/8 IN14/8 IN13/8 IN12/8 IN11/8 IN10/8 IN9/8 IN8/8 IN7/8 IN6/8 IN5/8 IN4/8 IN3/8 G18/6 IN2/1 IN1/1 G7/1 G6/1 G5/1 G4/1 G3/1 G2/1	10	96	0.022	0.015	4	4	400	0.41	0.033	2.5	3	AL2D	2G, 3.3X	4		G8/2												T1/T3		1.13	0.306	1.33	0.359									35.694	36.356	0.662	G1/1
100	G1/1			10	232	0.022	0.02	13	689	400	4.038	0.144	2.5	3	AL2D	2G, 3.3X	101	588	G8/2												T1/T3		1.04	0.494	1.17	0.555									36.241	36.356	0.115	G1/1
2	LK2/4	A		10	96	0.153	0.114	30	36			0.057		-2.5	SF2 600x900		36			10	96	0.114	68	68	4.75	0.55	375	3	130	1.17	G1	0.019	4.4	0.084		0.084	0.15	0.007	0.192	1.19	36.525	36.499	37.263	37.256	37.347	38.135	0.788	LK2/4
100	LK2/4	A		10	232	0.153	0.148	95	36			0.058		-2.5	SF2 600x900		36			10	232	0.148	36	36	4.75	0.55	375	3	130	1.17	G1	0.005	3.22	0.017		0.017	0.04	0.002	0.135	1	36.525	36.499	37.61	37.608	37.628	38.135	0.507	LK2/4
2	G16/4	A	LK2/4	10	96	0.074	0.052	14	15	319			0.2	3	SAL2D	SAG	15		G15/4	10.04	96	0.166	83	83	8	0.5	375	3	124	1.12	T1	0.029	0.85	0.024		0.024	0.22	0.018	0.224	1.2	36.479	36.439	37.231	37.213	37.256	37.767	0.511	G16/4
100	G16/4	A		10	232	0.074	0.068	44	751	3		0.137	0.2	3	SAL2D	SAG	3	748	G15/4	10.04	232	0.216	163	38	8	0.5	375	3	124	1.12	T1	0.006	0.41	0.003		0.003	0.05	0.004	0.143	0.99	36.479	36.439	37.606	37.602	37.608	37.767	0.159	G16/4
2	G15/4	A	LK2/4 G16/4	10	96	0.028	0.02	5	6	257			0.2	3	SAL2D	SAG	6		G2/1	10.11	96	0.185	88	88	22.149	0.7	375	3	147	1.33	T10	0.033	1.95	0.064	2.31	0.076	0.25	0.056	0.21	1.39	36.419	36.264	37.149	37.093	37.225	37.76	0.535	G15/4
100	G15/4	A		10	232	0.028	0.026	16	767	27		0.099	0.2	3	SAL2D	SAG	27	740	G2/1	10.11	231	0.241	181	65	22.149	0.7	375	3	147	1.33	T10	0.018	1.52	0.027	1.88	0.033	0.14	0.03	0.175	1.29	36.419	36.264	37.575	37.545	37.608	37.76	0.152	G15/4
2	G2/1		LK2/4 G16/4 G15/4 G17/5 IN16/8 IN15/8 IN14/8 IN13/8 IN12/8 IN11/8 IN10/8 IN9/8 IN8/8 IN7/8 IN6/8 IN5/8 IN4/8 IN3/8 G18/6 IN2/1 IN1/1 G7/1 G6/1 G5/1 G4/1 G3/1	10	96	0.005	0.004	1	1	358	0.255	0.02	1.95	3.09	AL2D	2G, 3.3X	1		G1/1												T6/T9		2.02	0.409	2.49	0.503									37.187	37.741	0.554	G2/1
100	G2/1			10	232	0.005	0.005	3	743	358	4.036	0.143	1.95	3.09	AL2D	2G, 3.3X	68	675	G1/1												T9/T10		1.9	0.56	2.06	0.605									37.59	37.741	0.151	G2/1
2	G18/6	A		10	96	0.235	0.164	44	47	417	1.834	0.068	2.82	3	AL2D	2G, 3.3X	47		G12/2	10	96	0.164	47	47	11.321	2.18	375	3	259	2.35	G2	0.009	8.15	0.075		0.075	0.07	0.008	0.108	1.78	38.582	38.335	39.177	39.169	39.252	39.872	0.62	G18/6
100	G18/6	A		10	232	0.235	0.215	138	150	417	2.889	0.098	2.82	3	AL2D	2G, 3.3X	101	49	G12/2	10	232	0.215	150	101	11.321	2.18	375	3	259	2.35	G2	0.042	3.32	0.141		0.141	0.33	0.037	0.162	2.2	38.582	38.335	39.731	39.694	39.872	39.872		G18/6
2	G6/1		G18/6 IN2/1 IN1/1 G7/1	10	96	0.178	0.124	33	36	401	1.664	0.063	2.24	3	AL2D	2G, 3.3X	36		G5/1												T1/T3		1.4	0.134	1.61	0.155									39.189	39.694	0.505	G6/1
100	G6/1			10	232	0.178	0.163	105	247	401	3.548	0.116	2.24	3	AL2D	2G, 3.3X	-128	374	G5/1												T1/T3		0.72	0.108	0.86	0.128									39.694	39.694		G6/1
2	G19/7	A		10	96	0.163	0.114	30	34	319			0.26	3	SAL2D	SAG	34		G8/2	10	96	0.114	34	34	8	0.69	375	3	145	1.32	G2	0.005	9.7	0.046		0.046	0.01	0.003	0.123	1.07	34.963	34.908	35.246	35.245	35.292	35.944	0.652	G19/7
100	G19/7	A		10	232	0.163	0.149	96	347	32		0.137	0.26	3	SAL2D	SAG	32	315	G8/2	10	232	0.149	182	32	8	0.69	375	3	145	1.32	G2	0.004	5.02	0.022		0.022	0.03	0.003	0.12	1.06	34.963	34.908	35.868	35.866	35.89	35.944	0.054	G19/7
2	G8/2		G19/7 G13/2 G12/2 G11/2 G10/2 G9/2	10	96	0.064	0.045	12	13	331			0.26	3	SAL2D	SAG	13		LOST												T10		1.96	0.151	2.33	0.178									35.273	35.937	0.664	G8/2
100	G8/2			10	232	0.064	0.058	38	1108	91		0.15	0.26	3	SAL2D	SAG	91	1017	LOST												T10		1.51	0.301	1.84	0.366									35.93	35.937	0.007	G8/2
2	G17/5	A		10	96	0.172	0.12	32	35	398	1.656	0.063	2.2	3	AL2D	2G, 3.3X	35		G16/4	10	96	0.12	35	35	8	6.09	375	3	433	3.92	G2	0.005	9.7	0.049		0.049	0.04	0.003	0.072	2.35	37.193	36.706	37.616	37.613	37.665	38.173	0.508	G17/5
100	G17/5	A		10	232	0.172	0.157	101	658	398	4.269	0.137	2.2	3	AL2D	2G, 3.3X	35	624	G16/4	10	232	0.157	196	35	8	6.09	375	3	433	3.92	G2	0.005	4.7	0.024		0.024	0.04	0.003	0.072	2.35	37.193	36.706	38.141	38.138	38.165	38.173	0.008	G17/5
2	G3/1		G17/5 IN16/8 IN15/8 IN14/8 IN13/8 IN12/8 IN11/8 IN10/8 IN9/8 IN8/8 IN7/8 IN6/8 IN5/8 IN4/8 IN3/8 G18/6 IN2/1 IN1/1 G7/1 G6/1 G5/1 G4/1	10	96	0.026	0.018	5	5	398	0.703	0.036	2.2	3	AL2D	2G, 3.3X	5		G14/3												T1/T3		1.1	0.268	1.25	0.303									37.648	38.175	0.527	G3/1
100	G3/1			10	232	0.026	0.024	15	92	398	2.435	0.085	2.2	3	AL2D	2G, 3.3X	83	9	G14/3												T1/T3		1.09	0.304	1.21	0.339									38.173	38.175	0.002	G3/1
2	IN19/9	A		10	96	0.037	0.026	7	8						INVCENT		8			10	96	0.026	8	8	10	0.49	225	PVC	31	0.79	G1	0.002	7	0.013		0.013	0.03	0.003	0.076	0.65	40.474	40.425	40.768	40.765	40.781	41.3	0.519	IN19/9
100	IN19/9	A		10	232	0.037	0.034	22	25						INVCENT		25			10	232	0.034	25	25	10	0.49	225	PVC	31	0.79	G1	0.02	3.73	0.074		0.074	0.31	0.031	0.151	0.88	40.474	40.425	40.966	40.935	41.04	41.3	0.26	IN19/9
2	IN18/9	A	IN19/9	10	96	0.03	0.021	6	6						INVCENT		6			10.08	96	0.047	14	14	10	0.49	225	PVC	31	0.79	T1	0.006	1.83	0.011		0.011	0.1	0.01	0.105	0.77	40.404	40.355	40.754	40.744	40.765	41.3	0.535	IN18/9
100	IN18/9	A		10	232	0.03	0.027	18	20						INVCENT		20			10.08	231	0.062	45	45	10	0.49	225	PVC	31	0.79	T1	0.064	1.44	0.093		0.093	0.99	0.099	0.225	1.12	40.404	40.355	40.843	40.744	40.935	41.3	0.365	IN18/9
2	IN17/9		IN19/9 IN18/9												OUT																														40.744	41.3	0.556	IN17/9
100	IN17/9														OUT																														40.744	41.3	0.556	IN17/9
2	IN16/8	A		10	96	0.042	0.029	8	9			0.015			SF2 600x900		9			10	96	0.029	9	9	12.5	0.5	225	PVC	32	0.8	G2	0.002	9.7	0.023		0.023	0.24	0.044	0.08	0.68	43.675	43.612	43.755	43.725	43.779	44.5	0.721	IN16/8
100	IN16/8	A		10	232	0.042	0.038	25	9			0.016			SF2 600x900		9			10	232	0.038	9	9	12.5	0.5	225	PVC	32	0.8	G2	0.003	9.7	0.025		0.025	0.24	0.045	0.081	0.69	43.675	43.612	43.756	43.726	43.781	44.5	0.719	IN16/8
2	IN15/8	A	IN16/8	10	96	0.037	0.026	7	8	145		0.014			SF2 600x900		8			10.1	96	0.056	16	16	10	0.5	225	PVC	32	0.8	T1	0.009	1.97	0.017		0.017	0.24	0.036	0.114	0.8	43.592	43.542	43.708	43.684	43.725	44.35	0.625	IN15/8
100	IN15/8	A		10	232	0.037	0.034	22	8	145		0.014			SF2 600x900		8			10.1	231	0.073	17	17	10	0.5	225	PVC	32	0.8	T1	0.009	1.97	0.017		0.017	0.27	0.039	0.115	0.81	43.592	43.542	43.708	43.681	43.726	44.35	0.624	IN15/8
2	IN14/8	A	IN16/8 IN15/8	10	96	0.03	0.021	6	6	145		0.011			SF2 600x900		6			10.19	95	0.076	22	22	10	0.5	225	PVC	32	0.8	T1	0.016	1.36	0.022		0.022	0.65	0.053	0.14	0.87	43.522	43.472	43.662	43.597	43.684	44.35	0.666	IN14/8
100	IN14/8	A		10	232	0.03	0.027	18	6	145		0.011			SF2 600x900		6			10.19	230	0.1	22	22	10	0.5	225	PVC	32	0.8	T1	0.016	1.32	0.021		0.021	0.65	0.053	0.138	0.86	43.522	43.472	43.66	43.596	43.681	44.35	0.669	IN14/8
2	IN13/8	A	IN16/8 IN15/8 IN14/8	10	96	0.03	0.021	6	6	145		0.011			SF2 600x900		6			10.27	95	0.097	29	29	12.5	0.5	225	PVC	32	0.8	T10	0.026	2.09	0.055	2.55	0.067	0.4	0.05	0.167	0.9	42.832	42.77	43.159	43.108	43.226	44.35	1.124	IN13/8
100	IN13/8	A		10	232	0.03	0.027	18	6	145		0.011			SF2 600x900		6			10.27	230	0.128	28	28	12.5	0.5	225	PVC	32	0.8	T10	0.025	2.14	0.053	2.61	0.064	0.38	0.047	0.162	0.9	42.832	42.77	43.133	43.086	43.197	44.35	1.153	IN13/8
2	IN11/8	A	IN16/8 IN15/8 IN14/8 IN13/8 IN12/8	10	96	0.037	0.026	7	8	145		0.014			SF2 600x900		8			10.48	94	0.15	44	44	12.5	0.48	225	PVC	31	0.78	T1	0.061	0.99	0.061		0.061	1.12	0.113	0.225	1.1	42.666	42.606	42.92	42.781	42.981	43.5	0.519	IN11/8
100	IN11/8	A		10	232	0.037	0.034	22	8	145		0.014			SF2 600x900		8			10.48	228	0.196	42	42	12.5	0.48	225	PVC	31	0.78	T1	0.056	1.02	0.058		0.058	1.04	0.102	0.225	1.05	42.666	42.606	42.908	42.777	42.965	43.5	0.535	IN11/8
2	IN10/8	A	IN16/8 IN15/8 IN14/8 IN13/8 IN12/8 IN11/8	10	96	0.037	0.026	7	8	145		0.014			SF2 600x900		8			10.58	94	0.176	51	51	10	0.52	225	PVC	32	0.81	T10	0.084	1.94	0.164	2.32	0.196	1.48	0.127	0.225	1.29	42.082	42.03	42.366	42.218	42.562	43.5	0.938	IN10/8
100	IN10/8	A		10	232	0.037	0.034	22	8	145		0.014			SF2 600x900		8			10.58	227	0.23	49	49	10	0.52	225	PVC	32	0.81	T10	0.076	2	0.152	2.43	0.186	1.37	0.113	0.225	1.22	42.082	42.03	42.351	42.214	42.536	43.5	0.964	IN10/8
2	IN9/8	A	IN16/8 IN15/8 IN14/8 IN13/8 IN12/8 IN11/8 IN10/8	10	96	0.03	0.021	6	6	145		0.011			SF2 600x900		6			10.67	94	0.197	57	57	10	0.5	300	PVC	68	0.97	T1	0.033					0.35	0.042	0.21	1.08	41.955	41.905	42.173	42.138	42.173	42.75	0.577	IN9/8
100	IN9/8	A		10	232	0.03	0.027	18	6	145		0.011			SF2 600x900		6			10.67	226	0.258	54	54	10	0.5	300	PVC	68	0.97	T1	0.029					0.37	0.044	0.2	1.07	41.955	41.905	42.159	42.122	42.159	42.75	0.591	IN9/8
2	IN8/8	A	IN16/8 IN15/8 IN14/8 IN13/8 IN12/8 IN11/8 IN10/8 IN9/8	10	96	0.03	0.021	6	6	145		0.011			SF2 600x900		6			10.75	93	0.218	63	63	12.501	0.49	300	PVC	68	0.96	T1	0.041	0.68	0.028	0.69	0.028	0.73	0.069	0.23	1.09	41.884	41.823	42.11	42.018	42.138	42.75	0.612	IN8/8
100	IN8/8	A		10	232	0.03	0.027	18	6	145		0.011			SF2 600x900		6			10.75	225	0.285	58	58	12.501	0.49	300	PVC	68	0.96	T1	0.035	0.69	0.024	0.7	0.024	0.7	0.067	0.215	1.08	41.884	41.823	42.098	42.011	42.122	42.75	0.628	IN8/8
2	IN7/8	A	IN16/8 IN15/8 IN14/8 IN13/8 IN12/8 IN11/8 IN10/8 IN9/8 IN8/8	10	96	0.037	0.026	7	8	145		[illegible]			[illegible]		[illegible]			10.85	93	0.244	70	70	12.501	0.5	300	PVC	68	0.96	T10	0.051	2.09	0.106	2.57	0.13	0.53	0.066	0.256	1.1	41.207	41.145	41.594	41.527	41.724	42.75	1.026	IN7/8
100	IN7/8	A		10	232	0.037	0.034	22	8	145		[illegible]			[illegible]		[illegible]			10.85	224	0.319	65	65	12.501	0.5	300	PVC	68	0.96	T10	0.043	2.15	0.092	2.66	0.114	0.45	0.056	0.234	1.1	41.207	41.145	41.531	41.475	41.645	42.75	1.105	IN7/8

AS-CONSTRUCTED CERTIFICATION
Signature: .... Date: 24/03/23
DANIEL COLLINS RPEQ No. 18631
For and on behalf of Colliers International engineering & design pty ltd

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	17.06.22	CL	AK	ISSUED FOR CONSTRUCTION
B	24.03.23	CL	AK	AS CONSTRUCTED

DRAWN
DESIGN

STATUS
AS CONSTRUCTED

APPROVED
DANIEL COLLINS RPEQ 18631

FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

SCALE

CLIENT
CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED

ASSOCIATED CONSULTANT
SAUNDERS HAVILL GROUP
PH: 1300 123 744

PROJECT NAME
WOODLINKS VILLAGE - STAGE 10
COOLINGWOOD DRIVE,
COOLINGWOOD PARK

DRAWING TITLE
STORMWATER DRAINAGE CALCULATIONS TABLE SHEET 1 OF 2

PROJECT No. 18-0176
DRAWING No. 118
REVISION B

LOCATION			SUB-CATCHMENT RUNOFF						INLET DESIGN										DRAIN DESIGN									HEAD LOSSES							PART FULL		DESIGN LEVELS								
DESIGN ARI	STRUCTURE No.	DRAIN SECTION	CONTRIBUTING CATCHMENT	SUB-CATCHMENT TIME OF CONC.	RAINFALL INTENSITY	SUB-CATCHMENT AREA	EQUIVALENT AREA	SUB-CATCHMENT DISCHARGE	FLOW IN K&C (INC. BYPASS)	HALF ROAD CAPACITY	FLOW WIDTH	FLOW DEPTH	ROAD GRADE AT INLET	ROAD CROSSFALL AT INLET	INLET TYPE	INLET CURVE	FLOW INTO INLET	BYPASS FLOW	BYPASS STRUCTURE No.	CRITICAL TIME OF CONC	RAINFALL INTENSITY	TOTAL (C x A)	PEAK FLOW	PIPE FLOW	REACH LENGTH	PIPE GRADE	PIPE SIZE	PIPE CLASS	CAPACITY FLOW	CAP. & TRA. VELOCITY	CHART(S) USED	VELOCITY HEAD	U/S HEAD LOSS COEFFICIENT	U/S HEAD LOSS	W.S.E COEFFICIENT	CHANGE IN W.S.E.	PIPE FRICTION SLOPE	PIPE FRICTION HEAD LOSS	NORMAL DEPTH	NORMAL DEPTH VEL.	PIPE U/S I.L	PIPE D/S I.L	PIPE U/S H.G.L	PIPE D/S H.G.L	W.S.E	GRATE LEVEL	FREEBOARD	STRUCTURE No.
yrs				min	mm/h	ha	ha	L/s	L/s	L/s	m	m	%	%			L/s	L/s		min	mm/hr	ha	L/s	L/s	m	%	mm		L/s	m/s		m		m		m	%	m	m	m/s	m	m	m	m	m	m	m	
2	IN6/8	A	IN16/8 IN15/8 IN14/8 IN13/8 IN12/8 IN11/8 IN10/8 IN9/8 IN8/8 IN7/8	10	96	0.037	0.026	7	8	145		0.014			SF2 600x900		8			10.96	93	0.27	78	78	13.235	0.51	300	PVC	69	0.97	T1	0.062	0.69	0.042	0.7	0.043	0.65	0.086	0.3	1.1	41.125	41.058	41.485	41.399	41.528	41.95	0.422	IN6/8
100	IN6/8	A		10	232	0.037	0.034	22	8	145		0.014			SF2 600x900		8			10.96	223	0.354	71	71	13.235	0.51	300	PVC	69	0.97	T1	0.052	0.73	0.038	0.74	0.038	0.54	0.071	0.256	1.11	41.125	41.058	41.437	41.366	41.475	41.95	0.475	IN6/8
2	IN5/8	A		10	96	0.051	0.036	10	11	84		0.019			SF2 600x900		11			11.07	92	0.306	88	88	19.47	2.05	300	PVC	138	1.96	T3/T6	0.079	1.76	0.139	2.17	0.171	1.88	0.391	0.173	2.07	41.03	40.631	41.261	40.894	41.431	41.95	0.519	IN5/8
100	IN5/8	A		10	232	0.051	0.047	30	11	84		0.019			SF2 600x900		11			11.07	223	0.4	80	80	19.47	2.05	300	PVC	138	1.96	T3/T6	0.065	1.78	0.116	2.22	0.144	1.94	0.395	0.163	2.03	41.03	40.631	41.25	40.873	41.395	41.95	0.555	IN5/8
2	IN4/8	A		10	96	0.03	0.021	6	6	145		0.011			SF2 600x900		6			11.23	92	0.327	93	93	2	1.05	300	PVC	99	1.4	T1	0.089	0.51	0.045		0.045	1.36	0.021	0.231	1.59	40.611	40.59	40.849	40.821	40.894	41.55	0.656	IN4/8
100	IN4/8	A		10	232	0.03	0.027	18	6	145		0.011			SF2 600x900		6			11.23	221	0.428	83	83	2	1.05	300	PVC	99	1.4	T1	0.07	0.53	0.037		0.037	1.78	0.019	0.21	1.57	40.611	40.59	40.836	40.8	40.873	41.55	0.677	IN4/8
2	IN3/8	A		10	96	0.037	0.026	7	8	145		0.014			SF2 600x900		8			11.25	92	0.353	101	101	31.275	1.99	300	PVC	136	1.93	T10	0.104	2.05	0.213	2.51	0.26	2.04	0.618	0.192	2.11	38.709	38.088	38.955	38.316	39.215	41.55	2.335	IN3/8
100	IN3/8	A		10	232	0.037	0.034	22	8	145		0.014			SF2 600x900		8			11.25	221	0.462	90	90	31.275	1.99	300	PVC	136	1.93	T10	0.083	2.07	0.171	2.54	0.21	0.86	0.27	0.178	2.06	38.709	38.088	39.037	38.766	39.247	41.55	2.303	IN3/8
2	1/8	A													RW PIT 550 DIA					11.51	91	0.353	100	100	13.976	4.14	375	PVC	357	3.23	T1/T3	0.041	0.26	0.011	0.37	0.015	0.19	0.044	0.135	2.77	38.013	37.434	38.306	38.279	38.321	39.313	0.992	1/8
100	1/8	A													RW PIT 550 DIA					11.51	219	0.462	86	86	13.976	4.14	375	PVC	357	3.23	T1/T3	0.031	0.18	0.006	0.24	0.008	0.24	0.034	0.126	2.66	38.013	37.434	38.761	38.727	38.768	39.313	0.545	1/8
2	G4/1			10	96	0.221	0.154	41	45	356	1.916	0.07	1.76	3	AL2D	2G,3.3X	45		G3/1												T3/T6		1.75	0.341	1.94	0.379									38.317	38.761	0.444	G4/1
100	G4/1			10	232	0.221	0.202	130	143	356	3.011	0.101	1.76	3	AL2D	2G,3.3X	68	75	G3/1												T3/T6		1.49	0.278	1.61	0.3									38.749	38.761	0.012	G4/1

AS-CONSTRUCTED CERTIFICATION

Signature: ..... Date: 24/03/23

DANIEL COLLINS RPEQ No. 18631

For and on behalf of Colliers International engineering & design pty ltd

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	17.06.22	CL	AK	ISSUED FOR CONSTRUCTION
B	24.03.23	CL	AK	AS CONSTRUCTED

DRAWN

DESIGN

STATUS: **AS CONSTRUCTED**

APPROVED: DANIEL COLLINS RPEQ 18631

FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE

CLIENT: **CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED**

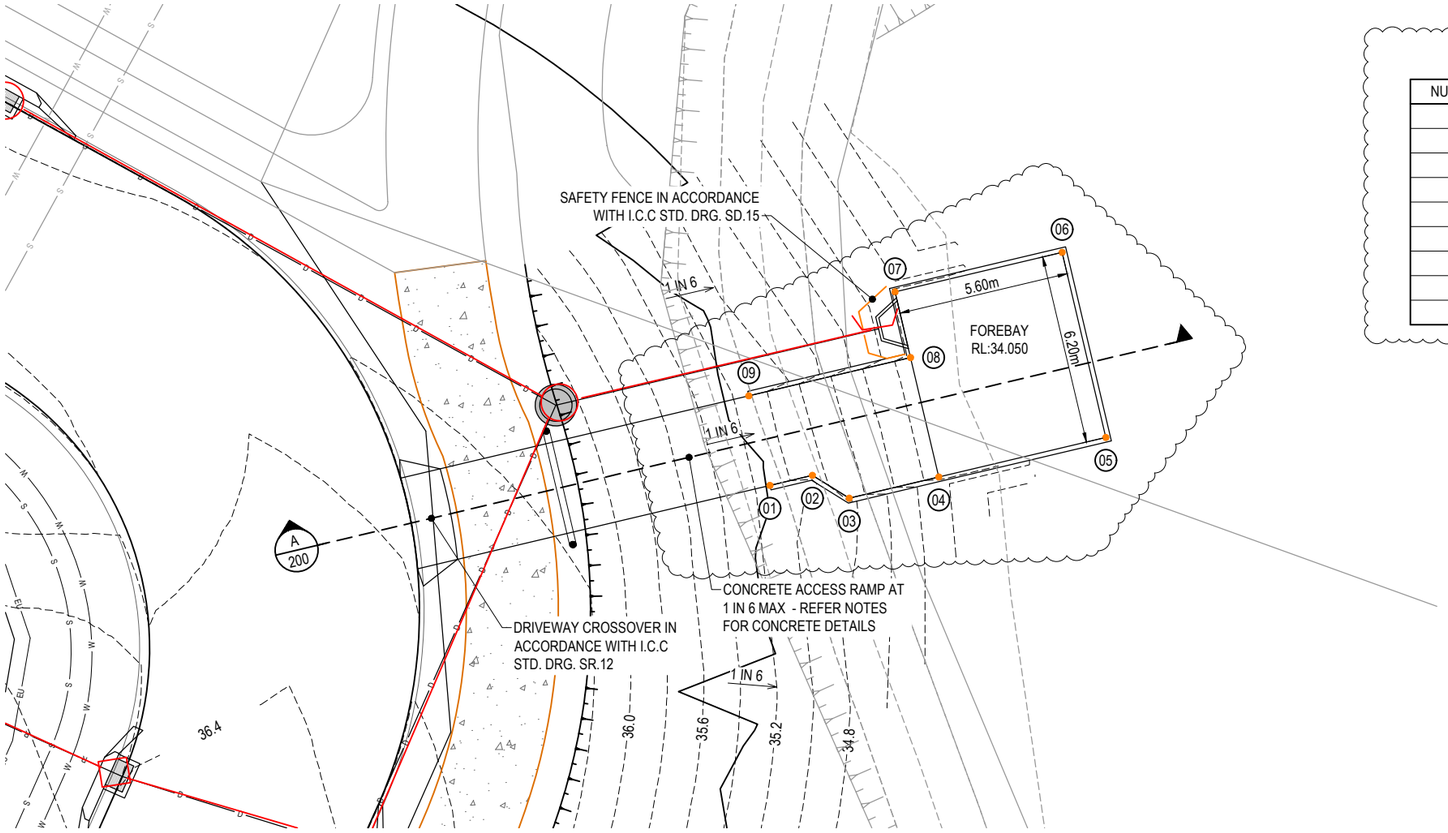
ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: **WOODLINKS VILLAGE - STAGE 10**

COOLINGWOOD DRIVE, COOLINGWOOD PARK

DRAWING TITLE: **STORMWATER DRAINAGE CALCULATIONS TABLE SHEET 2 OF 2**

PROJECT No.	DRAWING No.	REVISION
18-0176	119	B



FOREBAY SETOUT

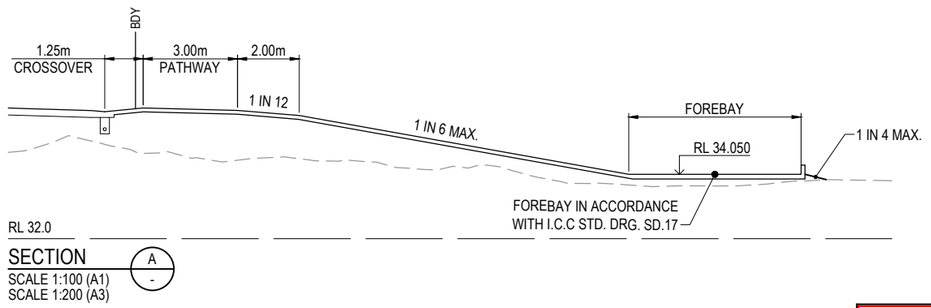
NUMBER	EASTING	NORTHING
01	6067.928	3400.024
02	6069.346	3400.132
03	6070.420	3399.212
04	6073.411	3399.441
05	6078.994	3399.869
06	6078.520	3406.051
07	6072.937	3405.623
08	6073.105	3403.429
09	6067.699	3403.015

LEGEND

- PROPOSED BATTER LINE
- PROPOSED ENERGEX BLOCKWORK RETAINING WALL
- 01 PROPOSED SETOUT POINT
- 62.0 PROPOSED FINISHED SURFACE LEVEL
- PROPOSED STORMWATER DRAINAGE PIPE
- EXISTING STORMWATER DRAINAGE PIPE
- PROPOSED LOCKABLE RAIL TO COUNCIL STANDARDS

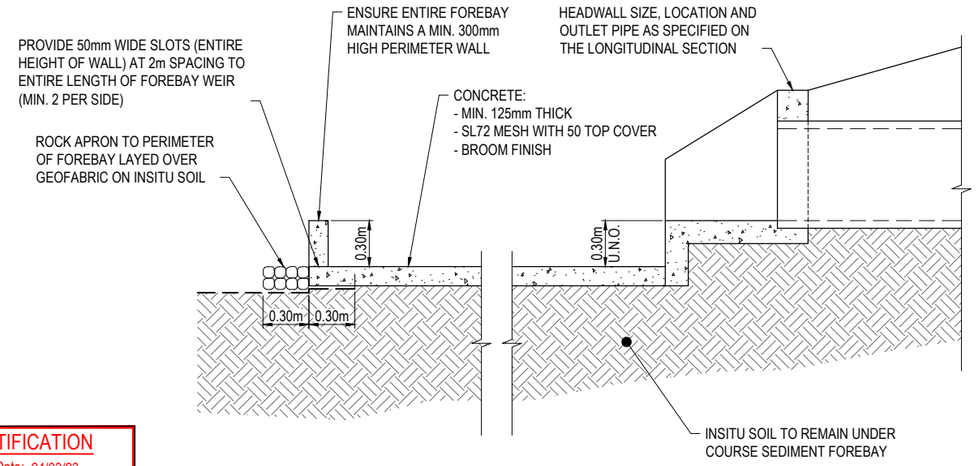
NOTE:
THE BASIN DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE LANDSCAPE ARCHITECT'S DRAWINGS AND DOCUMENTATION, SPECIFICALLY RELATING TO RETAINING WALLS, BARRIERS, PLANTING AND VEGETATION

NOTE:
1. FOR DESIGN AND CONSTRUCTION NOTES REFER TO I.C.C. STANDARD DRAWING SD.15, SD.16 AND SD.17.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH SITE BASED STORMWATER MANAGEMENT PLAN AND LANDSCAPE ARCHITECT'S PLANS



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

AS-CONSTRUCTED CERTIFICATION
Signature: ..... Date: 24/03/23
DANIEL COLLINS RPEQ No. 18631
For and on behalf of Colliers International engineering & design pty ltd



SEDIMENT FOREBAY DETAIL
SCALE 1:20 (A1) 1:40 (A3)

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	17.06.22	CL	AK	ISSUED FOR CONSTRUCTION
B	19.09.22	CL	AK	FOREBAY SETOUT UPDATED
C	24.03.23	CL	AK	AS CONSTRUCTED

DRAWN
DESIGN
STATUS: AS CONSTRUCTED
APPROVED: DANIEL COLLINS RPEQ 18631
FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD.

Colliers

SCALE
1:100 1 0 1 2 3 4 5 A1
1:200 A3

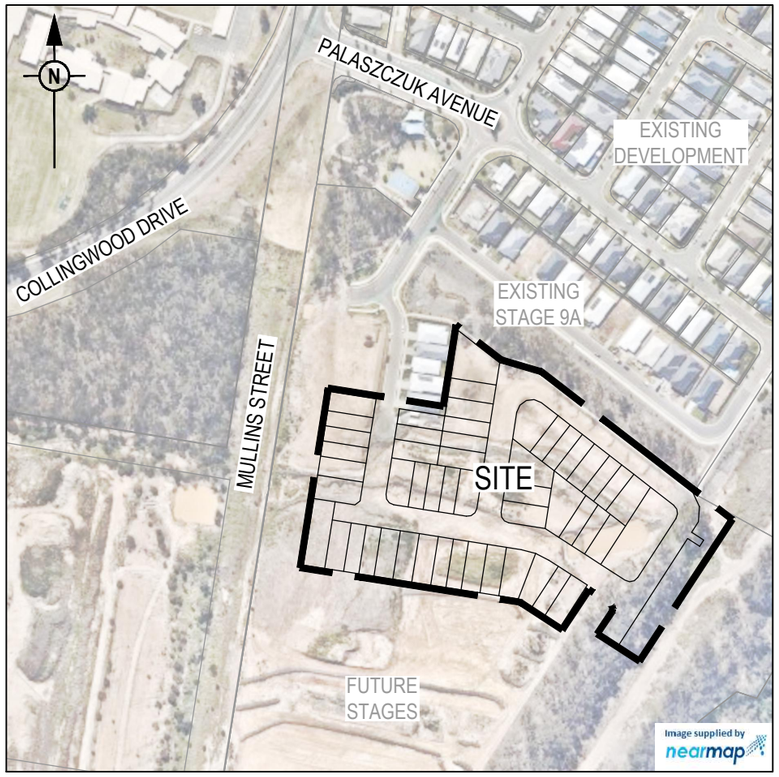
CLIENT: CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED

ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: WOODLINKS VILLAGE - STAGE 10
COOLINGWOOD DRIVE, COOLINGWOOD PARK

DRAWING TITLE: SEDIMENT FOREBAY LAYOUT PLAN AND DETAILS

PROJECT No.	DRAWING No.	REVISION
18-0176	121	C



LOCALITY PLAN
1:2000 (A1)
1:4000 (A3)

SEWERAGE DRAWING INDEX

NAME OF ESTATE		WOODLINKS VILLAGE STAGE 10
SUBDIVIDER		CANBERRA ESTATES CONSORTIUM NO.36 PTY LIMITED
URBAN UTILITIES APPLICATION No.		18-PNT-37795
URBAN UTILITIES APPROVAL DATE		20.05.2020
DRAWING/PLAN No.		18-0176-300-303
No. OF ALLOTMENTS		51
AREA		2.96ha
LENGTH OF SEWERS	DN110 PE100	~~100m~~ 94m
	DN160 PE100	~~583m~~ 579m

ENVIRONMENTAL CONDITIONS

VEGETATION PROTECTION

A. TREES LOCATED ALONG THE FOOTPATH SHALL BE, TRANSPLANTED PRIOR TO CONSTRUCTION, OR REPLACED IF DESTROYED.
B. WHEN WORKING WITHIN 4m OF TREES, RUBBER OR HARDWOOD GIRDLES SHALL BE CONSTRUCTED WITH 1.8m BATTENS CLOSELY SPACED AND ARRANGED VERTICALLY FROM GROUND LEVEL. GIRDLES SHALL BE STRAPPED TO TREES PRIOR TO CONSTRUCTION AND REMAIN UNTIL COMPLETION.
C. TREE ROOTS SHALL BE TUNNELED 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 AND 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.

CREEK CROSSINGS

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

REHABILITATION

A. PREDISTURBANCE SOIL PR
B. PREDISTURBANCE VEGETA

ENGINEER'S CERTIFICATION

I, Daniel Collins, hereby certify that:

1. The information contained in this drawing / document is in compliance with approved drawings and design.
2. The new water and sewerage works defined by this drawing have been designed and constructed in accordance with the SEQ code.
3. This generally represents an accurate record of as-constructed works
4. I accept responsibility for the information contained in this drawing / document.

RPEQ (signature) RPEQ No. 18631 Date: 27/02/23

GENERAL NOTES:

1. THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIALS, PLANT AND EQUIPMENT TO CONSTRUCT THE WORKS AS DOCUMENTED AND STRICTLY IN ACCORDANCE WITH THE RELEVANT AUTHORITY STANDARDS, SPECIFICATIONS AND REQUIREMENTS.
2. EXISTING SERVICES RELEVANT TO THE PROJECT HAVE BEEN CONSIDERED THROUGHOUT DESIGN AND IS BASED ON SURVEY INFORMATION PROVIDED BY THE SURVEYOR AND THE CONTRACTOR. THE RPEQ WHO CERTIFIED THE DESIGN OR THE PRINCIPAL'S CONSTRUCTION RPEQ HAVE RELIED UPON THIS INFORMATION TO INFORM THE DESIGN. THE CONTRACTOR SHALL VERIFY THE POSITION OF ANY UNDERGROUND SERVICES WITHIN THE AREAS OF WORKS AND SHALL BE RESPONSIBLE FOR MAKING GOOD ANY DAMAGE THERETO. ANY ALTERATION WORKS TO SERVICES WILL BE CARRIED OUT ONLY BY THE SERVICE OWNER AUTHORITY UNLESS APPROVED OTHERWISE.
3. ALL DESIGN AND CONSTRUCTION ACTIVITIES UNDERTAKEN SHALL COMPLY WITH CURRENT WORKPLACE HEALTH AND SAFETY REQUIREMENTS AND LEGISLATION.
4. PRIOR TO COMMENCING WORK, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL RELEVANT LOCAL AUTHORITY PERMITS.
5. THE CONTRACTOR SHALL NOT COMMENCE THE DEMOLITION OF ANY EXISTING BUILDINGS AND/OR STRUCTURES WITHOUT APPROVAL FROM THE SUPERINTENDENT.
6. THE CONTRACTOR SHALL APPLY INDUSTRY BEST PRACTICE SO WORKS SHALL NOT DISTURB OR AFFECT NEARBY RESIDENTS EITHER BY DUST, NOISE, FLOODING OR DISCONNECTION OF SERVICES. CONTRACTOR TO ENSURE THAT ACCESS AND SERVICES TO EXISTING PROPERTIES ARE AVAILABLE AT ALL TIMES.
7. THE CERTIFICATION OF THIS DESIGN IS BASED ON SURVEY AND POTHOLE INFORMATION PROVIDED BY THE SURVEYOR AND/OR CONTRACTOR AT THE TIME OF DESIGN. PRIOR TO COMMENCEMENT OF WORKS, THE CONTRACTOR SHALL VERIFY LEVELS OF EXISTING SERVICE CROSSINGS AND CONNECTION POINTS AND NOTIFY THE RPEQ WHO CERTIFIED THE DESIGN OR THE PRINCIPAL'S CONSTRUCTION RPEQ OF ANY DISCREPANCIES BETWEEN ACTUAL AND PROPOSED DESIGN LEVELS. THE CERTIFICATION OF THIS DESIGN IS BASED ON SURVEY AND POTHOLE INFORMATION PROVIDED BY THE SURVEYOR AND CONTRACTOR AT THE TIME OF DESIGN.
8. THESE ENGINEERING DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE APPROVED VEGETATION MANAGEMENT PLAN, WHERE APPLICABLE. WHEN IN DOUBT, ALL EXISTING TREES ARE TO REMAIN UNLESS DIRECTED OTHERWISE.
9. HOLD POINT: ONCE THE BASE OF MANHOLES HAVE BEEN POURED, CONSTRUCTION SHALL ONLY RE-COMMENCE ONCE THE SUPERINTENDENT AND/OR ENGINEER HAVE INSPECTED THE WORKS.
10. THE CONTRACTOR SHALL NOTE DURING THE COURSE OF THE WORKS WHEN JOINT INSPECTIONS WITH THE AUTHORITY AND THE SUPERINTENDENT ARE REQUIRED. THESE INCLUDE PRE-STARTS, SUBGRADES, PRE-SEALS, CLEARING, AND OTHER SUCH INSPECTIONS AS NOMINATED DURING THE PRE-START, IN THE APPROVAL AND THE SPECIFICATIONS. THE CONTRACTOR SHALL ENSURE NO WORKS PROCEED PAST THE INSPECTION POINT UNTIL THE JOINT INSPECTION HAS BEEN SUCCESSFULLY COMPLETED.

SEWERAGE NOTES

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT WSAA GRAVITY SEWERAGE CODE OF AUSTRALIA SPECIFICATIONS AND STANDARD - SOUTH EAST QUEENSLAND SERVICE PROVIDERS EDITION.
2. UNLESS SPECIFIED OTHERWISE ALL MATERIALS AND WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
3. THE DESIGN HAS BEEN UNDERTAKEN TO COMPLY WITH CURRENT URBAN UTILITIES STANDARDS AND THE WSAA GRAVITY SEWERAGE CODE OF AUSTRALIA SPECIFICATIONS AND STANDARD - SOUTH EAST QUEENSLAND SERVICE PROVIDERS EDITION
4. 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 URBAN UTILITIES SEWERAGE SYSTEM.
5. ALL PIPES AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE "ACCEPTED PRODUCTS AND MATERIALS" LIST, UNLESS APPROVED BY URBAN UTILITIES.
6. BENCH MARK AND LEVELS TO AHD.
7. WHERE PIPES ARE LAID IN FILL, THE FILLING SHALL BE CARRIED OUT IN LAYERS NOT EXCEEDING 300mm (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 URBAN UTILITIES UNLESS CERTIFICATES ARE PRODUCED CERTIFYING THAT THE REQUIRED COMPACTION HAS BEEN ACHIEVED.
8. SEWERS SHALL BE DISUSED IN ACCORDANCE WITH PROCEDURE SET OUT IN THE GRAVITY SEWER CODE.
9. CONSTRUCT EMBEDMENT AND TRENCHFILL TO SEQ-SEW-1200-2, 1201-1 TO 1205-1 AND SINGLE SIZE AGGREGATE IS USED) AND COUNCIL/DTMR STANDARDS FOR ROADWAYS.
10. WHERE SEWERS HAVE A GRADE OF 1 IN 20 OR STEEPER, BULKHEADS, TRENCH STOPS AND TRENCH DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CLAUSE 9.10 OF THE SEQ SEWER CODE AND DRG'S SEQ-SEW-1206-1 AND 1207-1
11. EACH ALLOTMENT SHALL BE SERVED BY A DN110 PE PROPERTY CONNECTION. FOR ALLOTMENTS OTHER THAN SINGLE RESIDENTIAL, A DN160 PE PROPERTY CONNECTION SHALL BE PROVIDED. PROPERTY CONNECTIONS SHALL BE LOCATED WITHIN THE PROPERTY AS SHOWN IN THE DRAWINGS AND SHALL EXTEND INTO THE PROPERTY A MINIMUM OF 300mm AND A MAXIMUM OF 750mm.
12. CONSTRUCT MH'S TO SEQ-SEW-1301-1 TO 1301-5 (TYPE G), 1301-8 TO 1301-11 (TYPE F), 1301-14 TO 1301-25 (TYPE X), 1301-26, 1304-1, 1305-1, 1307-4 (STUB CUT IN), 1313-1 (CONNECTION) AND 1502-1 (INSERTION MH AND REPAIR SYSTEM), 1301-27 (LADDERS).
13. CONSTRUCT MAINTENANCE SHAFTS AND TERMINAL ENTRY POINTS TO SEQ-SEW 1315-1, 1316-1 AND 1502-1 (INSERT MS).
14. INSTALL MH/MS TYPE B COVERS TO SEQ-SEW-1308-2 TO 1308-7.
15. INSTALL MH/MS TYPE D COVERS TO SEQ-SEW-1308-8 TO 1308-11.
16. INSTALL DETECTABLE MARKER TAPE ON ALL SEWER MAINS AND PROPERTY CONNECTIONS.
17. THE UNDERSIDE OF ALL MAINTENANCE HOLE ASPROS MUST BE PE LINED AS PER STD DRG SEQ-SEW-1301-26.
18. CONCRETE FOR MH CONSTRUCTION SHALL BE SPECIAL CLASS TO WSA PS-358 WITH REQUIREMENTS FOR CALCAREOUS AGGREGATE.

LIVE SEWER WORKS

No.	DESCRIPTION	DIA. SEWER	EXISTING ASSET ID AT CONNECTION	MH/MS TYPE	COVER TYPE	LOT & PLAN No.	F.S.L.	E.S.L.	CONNECTION I.L.	CONNECTION DEPTH TO INVERT	ALTERATION TO EXISTING MH BENCHING REQUIRED (Y/N)
1 (A)	0.50m FROM EXISTING STUB, CONSTRUCTOR,TO LAY NEW SEWERS. AFTER CLEANSING, TESTING AND INSPECTION, NOTIFY URBAN UTILITIES.	DN160 PE100	MH571751	G	B	-	~~36.146~~	~~36.146~~	~~34.436~~ 33.430	~~1.710~~ 1.640	N
1 (B)	CONSTRUCTOR, UNDER URBAN UTILITIES SUPERVISION, TO REMOVE TEMPORARY END CAP ON EXISTING STUB AND MAKE LIVE CONNECTION AFTER SUCCESSFUL 'ON MAINTENANCE' INSPECTION.										
2 (A)	0.50m FROM EXISTING STUB, CONSTRUCTOR,TO LAY NEW SEWERS. AFTER CLEANSING, TESTING AND INSPECTION, NOTIFY URBAN UTILITIES.	DN160 PE100	MH571753	G	B	-	~~38.374~~	~~38.374~~	~~36.236~~ 36.210	~~2.138~~ 2.150	N
2 (B)	CONSTRUCTOR, UNDER URBAN UTILITIES SUPERVISION, TO REMOVE TEMPORARY END CAP ON EXISTING STUB AND MAKE LIVE CONNECTION AFTER SUCCESSFUL 'ON MAINTENANCE' INSPECTION.										

LIVE WORKS NOTES:

1. ALL LIVE WORK SHALL BE UNDERTAKEN BY THE CONTRACTOR IN ACCORDANCE WITH A VALID NETWORK PERMIT, UNDER THE SUPERVISION OF URBAN UTILITIES, AT THE DEVELOPER'S EXPENSE.
2. LIVE WORKS CANNOT COMMENCE UNTIL ALL RELEVANT TEST CERTIFICATES HAVE BEEN PROVIDED AND ACCEPTED BY URBAN UTILITIES.

DETAILS OF PROPOSED SEQ CODE VARIATIONS

No.	SEQ CODE CLAUSE	DETAILS FOR PROPOSED VARIATION	REASONS OF PROPOSED VARIATION
1	2.6.4.1	CROSS ROAD CONNECTION TO LOTS (219 - 226, 241 - 247) WHERE HOUSE CONNECTION ISN'T LOCATED 5.0m FROM SIDE BOUNDARY	DRIVEWAY LOCATIONS KNOWN, CONNECTIONS LOCATED TO BE CLEAR OF DRIVEWAYS

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

ALL WATER AND SEWERAGE CONSTRUCTION SHALL COMPLY WITH ALL QUEENSLAND LEGISLATION

PROPERTY CONNECTIONS HAVE BEEN DESIGNED TO CONTROL THE REQUIRED SERVICE AREA OF EACH LOT AT A GRADE OF 1:60 AND A MAXIMUM DEPTH OF PROPERTY CONNECTION AT 1.5m UNLESS OTHERWISE STATED. FOR JUNCTION DETAILS REFER SEQ-SEW-1106-1 TO SEQ-SEW-1106-6.

THIS DESIGN PACKAGE SHOWS CONNECTIONS TO INFRASTRUCTURE THAT HAS NOT BEEN ACCEPTED 'ON-MAINTENANCE' BY URBAN UTILITIES LIVE-WORKS CANNOT COMMENCE UNTIL THE PRECEDING WORKS HAVE BEEN ACCEPTED 'ON MAINTENANCE' BY URBAN UTILITIES

RP DESCRIPTION
LOT 1 ON SP 266990

DATUM LEVEL AND LOCATION:
P.M. 110122
RL 40.320 AHD

URBAN UTILITIES REF. NUMBER. : 18-PNT-37795

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	17.06.22	CL	AK	ISSUED FOR CONSTRUCTION
B	27.02.23	CL	AK	AS CONSTRUCTED

DRAWN

DESIGN

STATUS: AS CONSTRUCTED

APPROVED: DANIEL COLLINS RPEQ 18631 DATE

FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE: 1:2000 / 1:4000 — 20 0 20 40 60 80 100 — A1 / A3

CLIENT: CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED

ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: WOODLINKS VILLAGE - STAGE 10

COOLINGWOOD DRIVE, COOLINGWOOD PARK

DRAWING TITLE: SEWERAGE COVER PLAN

PROJECT No.	DRAWING No.	REVISION
18-0176	300	B

ENGINEER'S CERTIFICATION

I, Daniel Collins, hereby certify that:

1. The information contained in this drawing / document is in compliance with approved drawings and design.
2. The new water and sewerage works defined by this drawing have been designed and constructed in accordance with the SEQ code.
3. This generally represents an accurate record of as-constructed works
4. I accept responsibility for the information contained in this drawing / document.

RPEQ (signature) RPEQ No. 18631 Date: 27/02/23

EXISTING STAGE 9

APPROVAL REF : 18-PNT-37793

FUTURE STAGE 9B

STAGE 12

STAGE 11

ROAD 12

ROAD 14

WATER CORRIDOR

DRIVEWAY 02

LIVE CONNECTION 1
REFER LIVE WORKS TABLE FOR DETAILS

LIVE CONNECTION 2
REFER LIVE WORKS TABLE FOR DETAILS

EXISTING MH ID MH571753

EXISTING MH ID MH571751

E:5927.455 N:3490.077

E:5846.854 N:3466.680

E:5837.301 N:3405.791

E:5914.736 N:3409.012

E:5960.417 N:3369.768

E:6001.089 N:3343.483

E:5994.776 N:3319.926

E:6041.620 N:3392.382

E:6018.399 N:3356.406

E:6003.784 N:3340.856

E:6004.782 N:3335.345

Ø150 PROPERTY STUB CONNECTION

STUB CONNECTION FOR FUTURE STAGE. REFER LONGITUDINAL SECTION

5000

5001

5002

EXIST HC TYPE B2 IL 36.645

EXIST HC TYPE B2 IL 36.445

EXIST HC TYPE B2 IL 36.245

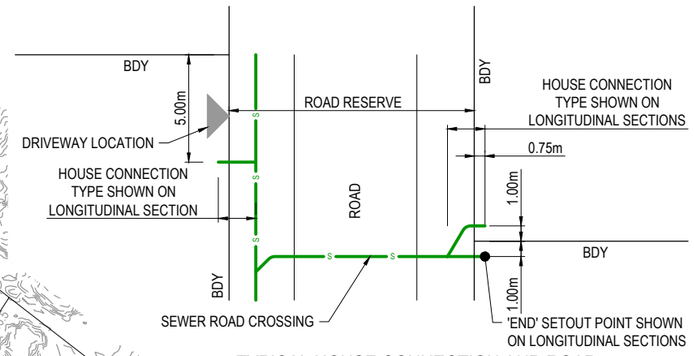
EXIST HC TYPE B2 IL 36.045

EXIST HC TYPE B2 IL 35.795

EXIST HC TYPE A2 IL 35.595

EXIST HC TYPE A2 IL 35.395

EXIST HC TYPE A2 IL 35.119



TYPICAL HOUSE CONNECTION AND ROAD CROSSING SETOUT LOCATION

NOT TO SCALE

LEGEND

- PROPOSED AREA OF WORKS
- PROPOSED SEWERAGE MAIN
- EXISTING SEWERAGE MAIN
- 24.60 SEWER LOT CONTROL SURFACE LEVEL
- INDICATIVE DRIVEWAY LOCATION
- ZERO LOT BOUNDARY
- PROPOSED SURFACE CONTOUR
- EXISTING SURFACE CONTOUR
- PROPOSED STORMWATER DRAINAGE PIPE
- EXISTING STORMWATER DRAINAGE PIPE
- PROPOSED ROOFWATER DRAINAGE PIPE
- EXISTING ROOFWATER DRAINAGE PIPE
- PROPOSED WATER MAIN
- EXISTING WATER MAIN
- PROPOSED RETAINING WALL
- EXISTING RETAINING WALL
- EXISTING ELECTRICAL CABLE U/G
- EXISTING ELECTRICAL CABLE O/H
- EXISTING TELECOMMUNICATION CABLE U/G
- EXISTING TELECOMMUNICATION CABLE O/H
- EXISTING FIBRE OPTIC CABLE U/G
- EXISTING GAS MAIN

AS CONSTRUCTED LEGEND

- SEWER MAIN
- SEWER MANHOLE

WARNING! - EXISTING SERVICES

EXTREME CARE SHOULD BE TAKEN WHEN EXCAVATING IN THIS AREA. THE FOLLOWING EXISTING SERVICES ARE LIKELY TO BE PRESENT IN THE VICINITY OF THE SITE:

- ELECTRICAL CABLES
- TELECOMMUNICATIONS CABLES
- GAS MAINS
- WATER MAINS
- SEWER MAINS

THE CONTRACTOR SHOULD CONTACT THE SERVICE PROVIDER FOR FURTHER INFORMATION AND SATISFY THEMSELVES OF ANY SPECIFIC TREATMENT OR REQUIREMENTS.

NOTE - SETOUT:
REFER TO THE LONGITUDINAL SECTIONS FOR EASTING AND NORTHING SETOUT OF SEWER STRUCTURES, ENDS AND BENDS.

THIS DESIGN PACKAGE SHOWS CONNECTIONS TO INFRASTRUCTURE THAT HAS NOT BEEN ACCEPTED 'ON MAINTENANCE' BY URBAN UTILITIES. LIVE WORKS CANNOT COMMENCE UNTIL THE PRECEDING WORKS HAVE BEEN ACCEPTED 'ON MAINTENANCE'.

RP DESCRIPTION
LOT 1 ON SP 266990

DATUM LEVEL AND LOCATION:
P.M. 110122
RL 40.320 AHD

URBAN UTILITIES REF. NUMBER. : 18-PNT-37795

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	17.06.22	CL	AK	ISSUED FOR CONSTRUCTION
B	27.02.23	CL	AK	AS CONSTRUCTED

DRAWN

DESIGN

STATUS: AS CONSTRUCTED

APPROVED: DANIEL COLLINS RPEQ 18631 DATE

FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE
1:500 10 5 0 10 20 A1
1:1000 A3

CLIENT: CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED

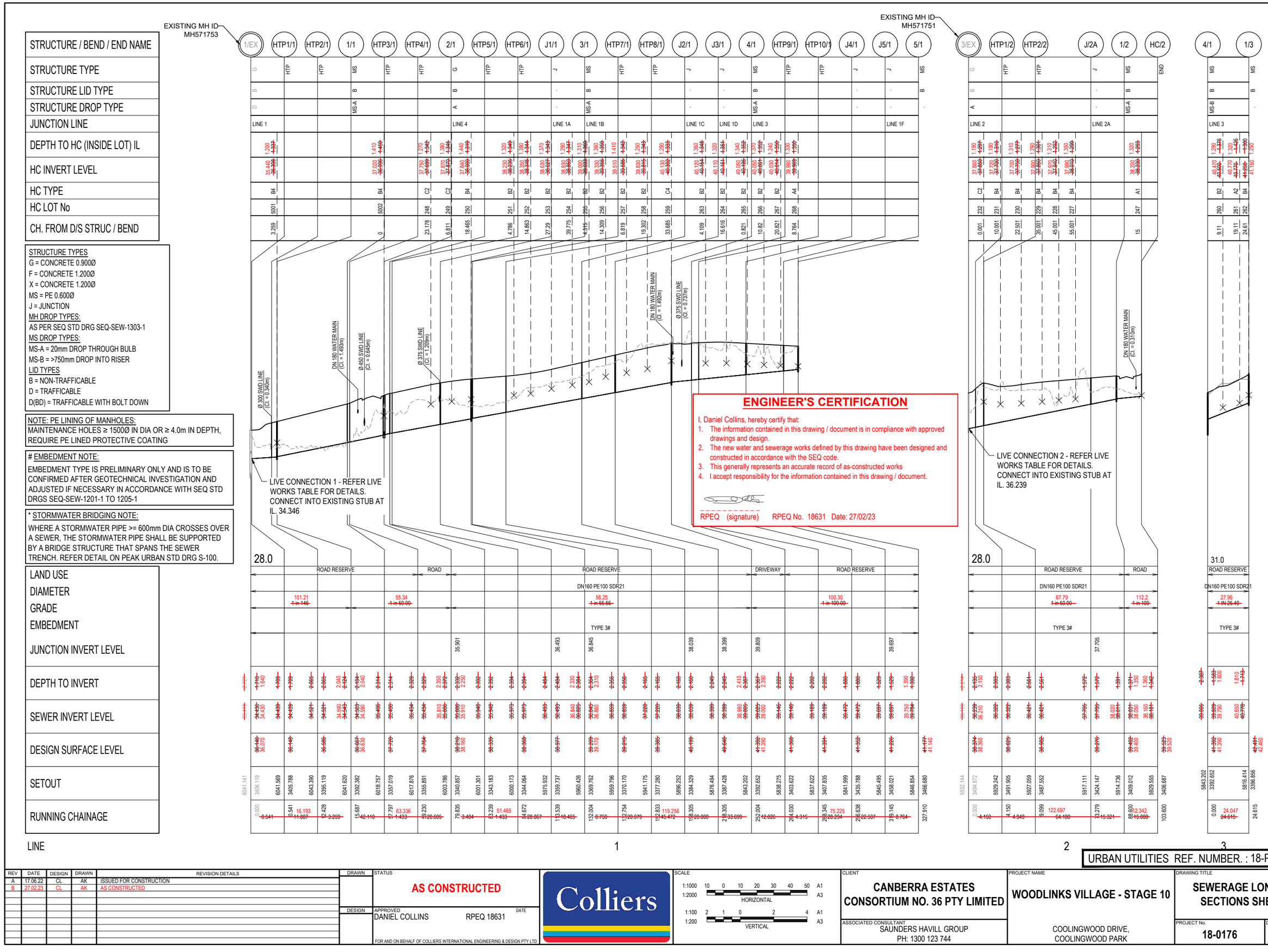
ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: WOODLINKS VILLAGE - STAGE 10

COOLINGWOOD DRIVE, COOLINGWOOD PARK

DRAWING TITLE: SEWERAGE LAYOUT PLAN

PROJECT No.	DRAWING No.	REVISION
18-0176	301	B



STRUCTURE TYPES
G = CONCRETE 0.900Ø
F = CONCRETE 1.200Ø
X = CONCRETE 1.200Ø
MS = PE 0.600Ø
J = JUNCTION
MH DROP TYPES:
AS PER SEQ STD DRG SEQ-SEW-1303-1
MS DROP TYPES:
MS-A = 20mm DROP THROUGH BULB
MS-B = >750mm DROP INTO RISER
LID TYPES
B = NON-TRAFFICABLE
D = TRAFFICABLE
D(BD) = TRAFFICABLE WITH BOLT DOWN

NOTE: PE LINING OF MANHOLES:
MAINTENANCE HOLES ≥ 1500Ø IN DIA OR ≥ 4.0m IN DEPTH, REQUIRE PE LINED PROTECTIVE COATING

EMBEDMENT NOTE:
EMBEDMENT TYPE IS PRELIMINARY ONLY AND IS TO BE CONFIRMED AFTER GEOTECHNICAL INVESTIGATION AND ADJUSTED IF NECESSARY IN ACCORDANCE WITH SEQ STD DRGS SEQ-SEW-1201-1 TO 1205-1

* STORMWATER BRIDGING NOTE:
WHERE A STORMWATER PIPE >= 600mm DIA CROSSES OVER A SEWER, THE STORMWATER PIPE SHALL BE SUPPORTED BY A BRIDGE STRUCTURE THAT SPANS THE SEWER TRENCH. REFER DETAIL ON PEAK URBAN STD DRG S-100.

ENGINEER'S CERTIFICATION

I, Daniel Collins, hereby certify that:
1. The information contained in this drawing / document is in compliance with approved drawings and design.
2. The new water and sewerage works defined by this drawing have been designed and constructed in accordance with the SEQ code.
3. This generally represents an accurate record of as-constructed works
4. I accept responsibility for the information contained in this drawing / document.

RPEQ (signature) RPEQ No. 18631 Date: 27/02/23

URBAN UTILITIES REF. NUMBER. : 18-PNT-37795

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DESIGN
STATUS: AS CONSTRUCTED
APPROVED DANIEL COLLINS RPEQ 18631 DATE
FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE
1:1000 10 0 10 20 30 40 50 A1
1:2000 HORIZONTAL A3
1:100 2 1 0 2 4 A1
1:200 VERTICAL A3

CLIENT: CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED
ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744
PROJECT NAME: WOODLINKS VILLAGE - STAGE 10
COOLINGWOOD DRIVE, COOLINGWOOD PARK
DRAWING TITLE: SEWERAGE LONGITUDINAL SECTIONS SHEET 1 OF 2
PROJECT No. 18-0176
DRAWING No. 302
REVISION B

STRUCTURE / BEND / END NAME
STRUCTURE TYPE
STRUCTURE LID TYPE
STRUCTURE DROP TYPE
JUNCTION LINE
DEPTH TO HC (INSIDE LOT) IL
HC INVERT LEVEL
HC TYPE
HC LOT No
CH. FROM D/S STRUC / BEND

STRUCTURE TYPES
G = CONCRETE 0.900Ø
F = CONCRETE 1.200Ø
X = CONCRETE 1.200Ø
MS = PE 0.600Ø
J = JUNCTION
MH DROP TYPES:
AS PER SEQ STD DRG SEQ-SEW-1303-1
MS DROP TYPES:
MS-A = 20mm DROP THROUGH BULB
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LID TYPES
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D = TRAFFICABLE
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EMBEDMENT NOTE:
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* STORMWATER BRIDGING NOTE:
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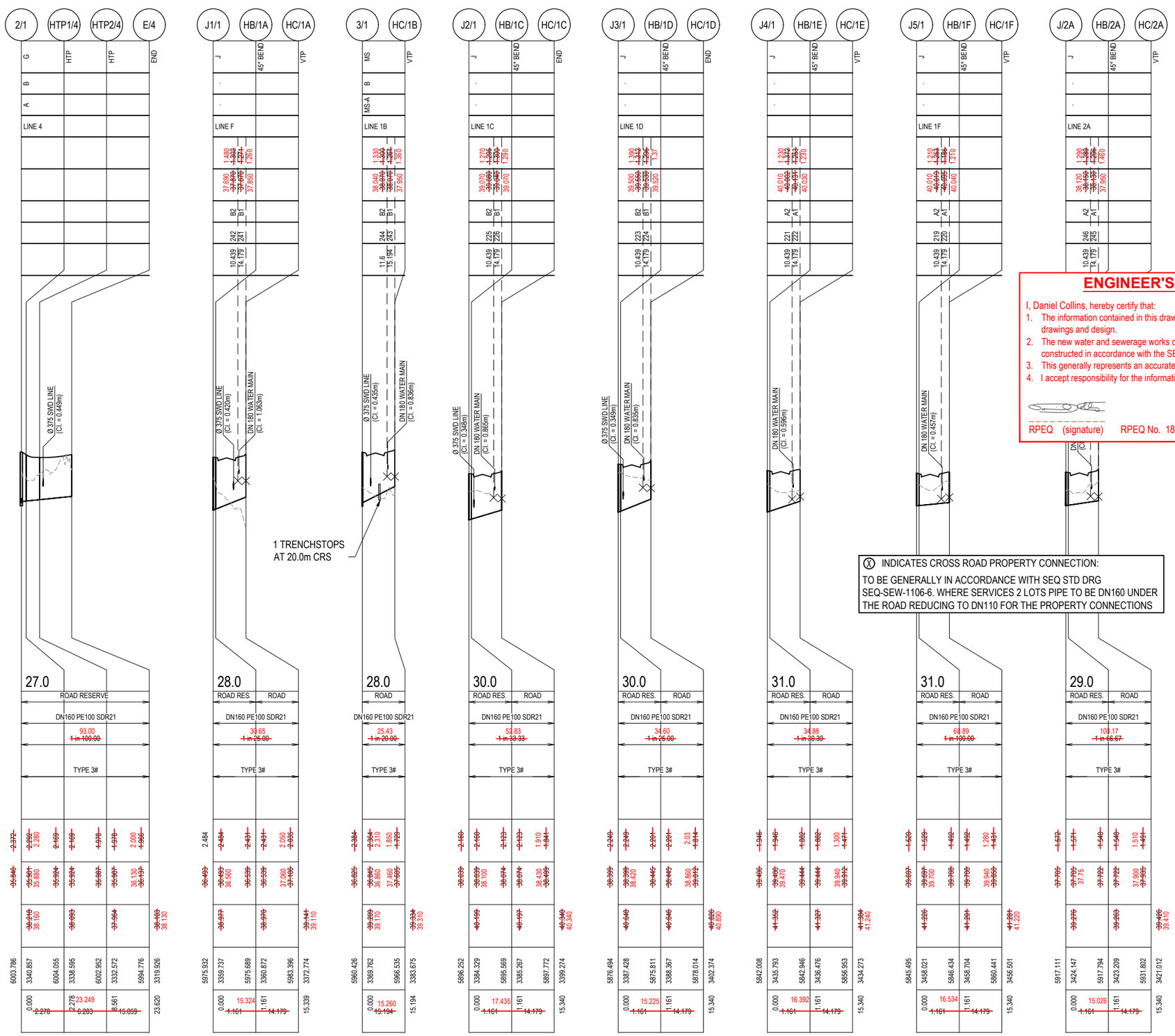
LAND USE
DIAMETER
GRADE
EMBEDMENT
JUNCTION INVERT LEVEL
DEPTH TO INVERT
SEWER INVERT LEVEL
DESIGN SURFACE LEVEL
SETOUT
RUNNING CHAINAGE

LINE



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RPEQ (signature) RPEQ No. 18631 Date: 27/02/23

X INDICATES CROSS ROAD PROPERTY CONNECTION:
TO BE GENERALLY IN ACCORDANCE WITH SEQ STD DRG SEQ-SEW-1106-6. WHERE SERVICES 2 LOTS PIPE TO BE DN160 UNDER THE ROAD REDUCING TO DN110 FOR THE PROPERTY CONNECTIONS

URBAN UTILITIES REF. NUMBER. : 18-PNT-37795

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Colliers

SCALE
1:1000 10 0 10 20 30 40 50 A1
1:2000 HORIZONTAL A3
1:100 2 1 0 2 4 A1
1:200 VERTICAL A3

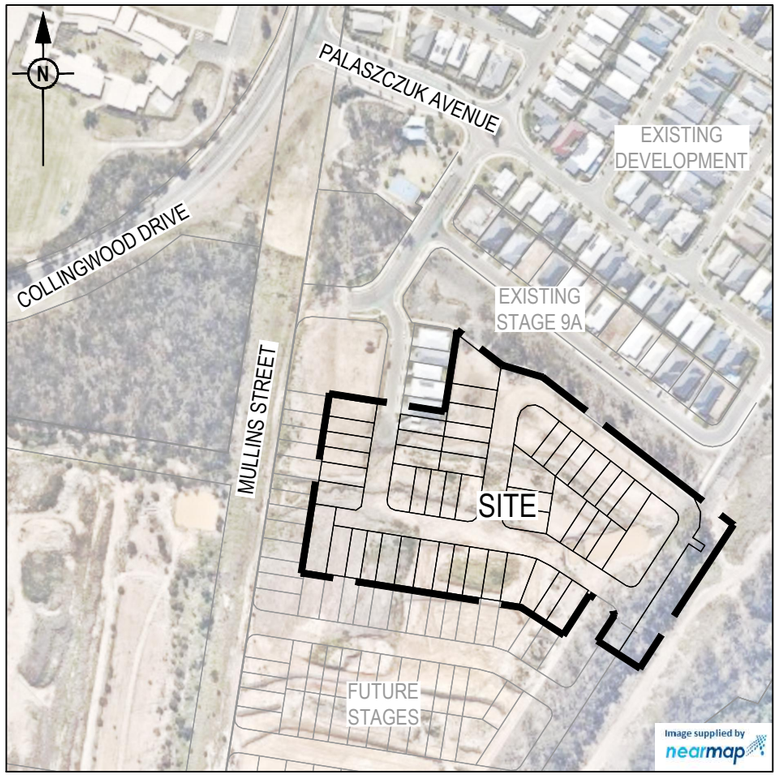
CLIENT: CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED

ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: WOODLINKS VILLAGE - STAGE 10
COOLINGWOOD DRIVE, COOLINGWOOD PARK

DRAWING TITLE: SEWERAGE LONGITUDINAL SECTIONS SHEET 2 OF 2

PROJECT No.	DRAWING No.	REVISION
18-0176	303	B



LOCALITY PLAN
1:2000 (A1)
1:4000 (A3)

WATER RETICULATION DRAWING INDEX

ASSET REGISTER - WATER RETICULATION					
ESTATE/STAGE	WOODLINKS VILLAGE STAGE 10				
SITE ADDRESS	COLLINGWOOD DRIVE				
URBAN UTILITIES REFERENCE No.	18-PNT-37795				
URBAN UTILITIES APPROVAL DATE	20.05.2020				
CLIENT	CANBERRA ESTATES CONSORTIUM NO.36 PTY LIMITED				
DRAWING/PLAN No.	18-0176-304 TO 306				
	DIAMETER	MATERIAL		LENGTH	
		DESIGN	CONST	DESIGN	CONST
MAINS	DN63	PE100 PN16		~~48~~	
	DN125	PE100 PN16		~~211~~	209
	DN180	PE100 PN16		~~355~~	394
	DIAMETER	MATERIAL		LENGTH	
		DESIGN	CONST	DESIGN	CONST
SERVICES	DN25	PE100 PN16		~~78~~	78
	DN32	PE100 PN16		~~36~~	36
	DN40	PE100 PN16		~~144~~	144
	DIAMETER	NUMBER			
METERS	20Ø	~~51~~	51		
	25Ø	-			
	32Ø	-			

GENERAL NOTES:

1. THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIALS, PLANT AND EQUIPMENT TO CONSTRUCT THE WORKS AS DOCUMENTED AND STRICTLY IN ACCORDANCE WITH THE RELEVANT AUTHORITY STANDARDS, SPECIFICATIONS AND REQUIREMENTS.
2. EXISTING SERVICES RELEVANT TO THE PROJECT HAVE BEEN CONSIDERED THROUGHOUT DESIGN AND IS BASED ON SURVEY INFORMATION PROVIDED BY THE SURVEYOR AND/OR THE CONTRACTOR. THE RPEQ WHO CERTIFIED THE DESIGN OR THE PRINCIPAL'S CONSTRUCTION RPEQ HAVE RELIED UPON THIS INFORMATION TO INFORM THE DESIGN. THE CONTRACTOR SHALL VERIFY THE POSITION OF ANY UNDERGROUND SERVICES WITHIN THE AREAS OF WORKS AND SHALL BE RESPONSIBLE FOR MAKING GOOD ANY DAMAGE THERETO. ANY ALTERATION WORKS TO SERVICES WILL BE CARRIED OUT ONLY BY THE SERVICE OWNER AUTHORITY UNLESS APPROVED OTHERWISE.
3. ALL DESIGN AND CONSTRUCTION ACTIVITIES UNDERTAKEN SHALL COMPLY WITH CURRENT WORKPLACE HEALTH AND SAFETY REQUIREMENTS AND LEGISLATION.
4. PRIOR TO COMMENCING WORK, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL RELEVANT LOCAL AUTHORITY PERMITS.
5. THE CONTRACTOR SHALL NOT COMMENCE THE DEMOLITION OF ANY EXISTING BUILDINGS AND/OR STRUCTURES WITHOUT APPROVAL FROM THE SUPERINTENDENT.
6. THE CONTRACTOR SHALL APPLY INDUSTRY BEST PRACTICE SO WORKS SHALL NOT DISTURB OR AFFECT NEARBY RESIDENTS EITHER BY DUST, NOISE, FLOODING OR DISCONNECTION OF SERVICES. CONTRACTOR TO ENSURE THAT ACCESS AND SERVICES TO EXISTING PROPERTIES ARE AVAILABLE AT ALL TIMES.
7. THE CONTRACTOR SHALL VERIFY LEVELS OF EXISTING SERVICE CROSSINGS AND CONNECTION POINTS PRIOR TO COMMENCEMENT OF WORKS AND NOTIFY THE RPEQ WHO CERTIFIED THE DESIGN OR THE PRINCIPAL'S CONSTRUCTION RPEQ OF ANY DISCREPANCIES BETWEEN ACTUAL AND PROPOSED DESIGN LEVELS. THE CERTIFICATION OF THIS DESIGN IS BASED ON SURVEY AND POTHOLE INFORMATION PROVIDED BY THE SURVEYOR AND CONTRACTOR AT THE TIME OF DESIGN.
8. THESE ENGINEERING DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE APPROVED VEGETATION MANAGEMENT PLAN, WHERE APPLICABLE. WHEN IN DOUBT, ALL EXISTING TREES ARE TO REMAIN UNLESS DIRECTED OTHERWISE.
9. THE CONTRACTOR SHALL NOTE DURING THE COURSE OF THE WORKS WHEN JOINT INSPECTIONS WITH THE AUTHORITY AND THE SUPERINTENDENT ARE REQUIRED. THESE INCLUDE PRE-STARTS, SUBGRADES, PRE-SEALS, CLEARING, AND OTHER SUCH INSPECTIONS AS NOMINATED DURING THE PRE-START, IN THE APPROVAL AND THE SPECIFICATIONS. THE CONTRACTOR SHALL ENSURE NO WORKS PROCEED PAST THE INSPECTION POINT UNTIL THE JOINT INSPECTION HAS BEEN SUCCESSFULLY COMPLETED.

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

ALL WATER AND SEWERAGE CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS OF THE QUEENSLAND WORK HEALTH AND SAFETY ACT 2011. CONTACT THE DIVISION OF WORKPLACE HEALTH AND SAFETY FOR INFORMATION. PHONE 1300 362 128

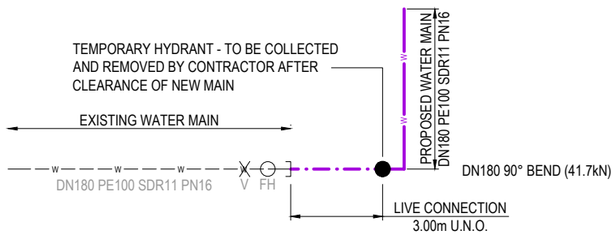
LIVE CONNECTIONS

CONNECTION 1			
STREET	ROAD 12		
LOCATION	CH80.000 RIGHT SIDE		
LENGTH	3.00m	TYPE OF MAIN	DN180 PE100
DATE COMMENCED		DATE COMPLETED	
SIGNATURE			

CONNECTION 2			
STREET	ROAD 14		
LOCATION	CH87.500 LEFT SIDE		
LENGTH	3.00m	TYPE OF MAIN	DN125 PE100
DATE COMMENCED		DATE COMPLETED	
SIGNATURE			

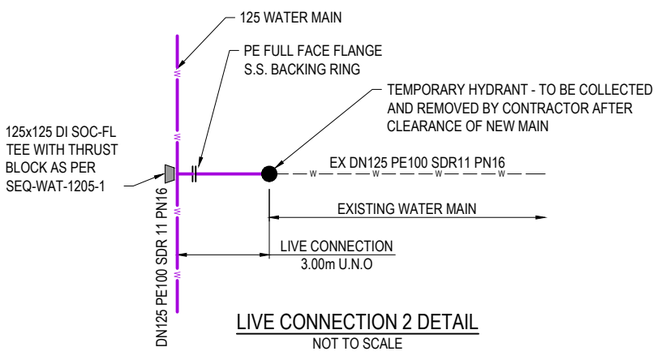
SERVICE DETAILS		
NO	SIZE	LOT NUMBERS
19	DN25PE	220-226,233-245,258-263 & 268
17	DN32PE	◯ 219,227-232,248-257,264-267

NOTES:
1. SERVICES AND METERS TO LOT 268 WILL CONNECT TO EXISTING WATER MAIN AND SHALL BE INSTALLED AS LIVE WORKS
2. SERVICES TO BE PROVIDED FOR FUTURE LOTS 248 TO 250. METERS TO BE CONNECTED IN FUTURE WATER APPROVAL.



LIVE WORKS CONNECTION 1
NOT TO SCALE

LIVE WORKS NOTES:
1. ALL LIVE WORK SHALL BE UNDERTAKEN BY THE CONTRACTOR IN ACCORDANCE WITH A VALID NETWORK ACCESS PERMIT, UNDER THE SUPERVISION OF URBAN UTILITIES, AT THE DEVELOPER'S EXPENSE.
2. PRE-CHLORINATED FITTINGS SHALL BE USED FOR ALL DRINKING WATER LIVE WORKS CONNECTIONS.



LIVE CONNECTION 2 DETAIL
NOT TO SCALE

WATER RETICULATION NOTES

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT WSAA WATER SUPPLY CODE OF AUSTRALIA SPECIFICATIONS AND STANDARD - SOUTH EAST QUEENSLAND SERVICE PROVIDERS EDITION.
2. UNLESS SPECIFIED OTHERWISE ALL MATERIALS AND WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
3. THE DESIGN HAS BEEN UNDERTAKEN TO COMPLY WITH CURRENT SOUTH EAST QUEENSLAND WATER CODE AND URBAN UTILITIES STANDARDS.
4. THE CONSTRUCTION OF THE WATER RETICULATION WORK SHOWN ON THIS DRAWING MUST BE SUPERVISED BY AN ENGINEER WHO HAS RPEQ REGISTRATION. WORKS NOT COMPLYING WITH THIS REQUIREMENT WILL NOT BE PERMITTED TO CONNECT TO THE RETICULATION SYSTEM.
5. ALL MATERIALS USED IN THE WORKS SHALL COMPLY WITH URBAN UTILITIES ACCEPTED PRODUCTS AND MATERIALS LIST.
6. ADOPT LIP OF KERB OR SHOULDER OF ROAD AS PERMANENT LEVEL.
7. COVER ON MAINS FROM PERMANENT LEVEL TO BE AS SHOWN IN SEQ-WAT-1200-2.
8. CONSTRUCT EMBEDMENT AND TRENCH FILL TO SEQ-WAT-1200-2, 1201-1 TO SEQ-WAT-1204-1 AND COUNCIL STANDARDS FOR ROADWAY CROSSINGS, WHICHEVER IS MORE ONEROUS.
9. PROVIDE BULKHEADS / TRENCH STOPS IN ACCORDANCE WITH SEQ WATER SUPPLY CODE TABLE 7.5 AND SEQ-WAT-1209-1 AND 1210-1.
10. CONSTRUCT THRUST BLOCKS ON ALL VALVES, BENDS, TEES, TAPERS, DEAD ENDS AS REQUIRED BY PIPE MATERIAL AS WELL AS TRANSITIONS TO UNRESTRAINED PIPEWORK TO SEQ-WAT-1205-1 AND 1206-1 AND 1207-1 AND WHERE OTHER PIPIES CONNECT TO PE PIPE.
11. INSTALL DETECTABLE MARKER TAPE ON ALL WATER MAINS AND PROPERTY SERVICES.
12. CONSTRUCT FIRE HYDRANTS AND STOP VALVES TO SEQ-WAT-1301-1, 1302-1, 1303-2, 1305-1, 1306-1 AND 1409-1.
13. CONSTRUCT SCOURS TO SEQ-WAT-1307-2 (ONLY MAINS DN315 AND LARGER). SCOURS MUST DISCHARGE INTO AN OPEN STORMWATER GULLY PIT. DISCHARGE TO THE FACE OF KERB AND CHANNEL IS NOT ACCEPTABLE TO URBAN UTILITIES.
14. INSTALL ROAD AND PAVEMENT MARKERS TO SEQ-WAT-1107-1, 1107-2, 1300-1 AND 1300-2.
15. CONSTRUCT HYDRANTS AT THE ENDS OF ALL NEW MAINS BEFORE THE SCOUR AND WHERE REQUIRED FOR COMMISSIONING PURPOSES. URBAN UTILITIES PREFERENCE IS TO AVOID TAPPING BANDS FOR TEST POINTS AND PROVIDE EITHER A TEMPORARY DUCKFOOT HYDRANT OR FLANGED SHORT PIPE WITH A TEMPORARY TAPPED BLANK FLANGE. TESTING AGAINST LIVE MAINS AND VALVES IS NOT PERMITTED.
16. TESTING LOCATIONS AND TEMPORARY FITTINGS ARE REQUIRED ON SERVICES OVER 10m LONG UNLESS APPROVED IN WRITING FOR WORKS TO BE UNDERTAKEN AS LIVE WORKS. TESTING AND AS -CONSTRUCTED REQUIREMENTS TO BE DOCUMENTED ON DRAWINGS.
17. 316SS BACKING RINGS SHALL BE USED WITH FULL-FACE PE FLANGES. PE STUB-FLANGES ARE NOT ACCEPTED. WHEN JOINING TO EXISTING UNRESTRAINED PIPELINES, PROVIDE A DICL SHORT PIPE WITH THRUST FLANGE AND THRUST BLOCK. BOLT ON UNI FLANGES SHALL NOT BE USED AS THRUST FLANGES. THRUST (PUDDLE) FLANGES SHALL BE AN APPROVED PREFABRICATED DICL/MSCL SHORT PIPE WITH PREFABRICATED THRUST FLANGE.
18. ALL DISUSED SERVICES SHALL BE PLUGGED AT THE MAIN AND FERRULE CLOSED OR TAPPING BAND REMOVED AND SECTION OF MAIN SUBSTITUTED AS LIVE WORKS. LARGE DIAMETER SERVICES SHALL BE DISUSED BY REMOVING ANY PROPERTY SERVICE PIPEWORK AT THE POINT OF CONNECTION TO THE MAIN, AND INSTALLING A BLANK FLANGE DIRECTLY ON THE TEE.
19. AC MAINS SHALL BE REPLACED COLLAR-COLLAR.
20. PROVIDE DN40 PE WATER SERVICES FOR ROAD CROSSINGS SERVICING TWO DWELLINGS. PROVIDE DN32 PE WATER SERVICES FOR ROAD CROSSINGS SERVICING A SINGLE DWELLING. IF THE LONG TERM STATIC HEAD OF THE PROPERTY SERVICE IS LESS THAN 350 kPA (35m) OR IF PRIVATE BOOSTER IS REQUIRED, THE MINIMUM SIZE OF PROPERTY SERVICE SHALL BE DN40 PE.
21. CONSTRUCT SMALL DIAMETER PROPERTY SERVICES TO SEQ-WAT-1107-1 AND 1107-3.
22. CONDUITS TO BE INSTALLED IN ACCORDANCE WITH THE STANDARD DRAWINGS.
23. A WATER METER SUPPLIED AT THE DEVELOPER'S COST, IS TO BE INSTALLED AT THE SERVICE POINT OF EACH LOT IN ACCORDANCE WITH THE URBAN UTILITIES STANDARD DRAWING.
24. CONSTRUCT TEST POINTS TO SEQ-WAT-1410-1 AT THE ENDS OF ALL NEW MAINS AND WHERE REQUIRED FOR COMMISSIONING PURPOSES.
25. WATER MAINS SHALL SHALL CROSS OVER OTHER SERVICES. IF NOT PRACTICABLE THEN AMEND DESIGN TO USE FULLY WELDED MSCL AND CONCRETE ENCASEMENT. 1305-1, 1306-1 AND 1409-1.
26. URBAN UTILITIES WATER METERS AND FIRE HYDRANTS MUST BE LOCATED 1.100m CLEAR OF ENERGEX PILLARS.

ENVIRONMENTAL CONDITIONS

VEGETATION PROTECTION

A. TREES LOCATED ALONG THE FOOTPATH SHALL BE, TRANSPLANTED PRIOR TO CONSTRUCTION, OR REPLACED IF DESTROYED.
B. WHEN WORKING WITHIN 4m OF TREES, RUBBER OR HARDWOOD GIRDLES SHALL BE CONSTRUCTED WITH 1.8m BATTENS CLOSELY SPACED AND ARRANGED VERTICALLY FROM GROUND LEVEL. GIRDLES SHALL BE STRAPPED TO TREES PRIOR TO CONSTRUCTION AND REMAIN UNTIL COMPLETION.
C. TREE ROOTS SHALL BE TUNNELED 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 SHOU

SOIL

A. TOPSOIL AND SUBSOIL SHALL BE ST
B. CARE SHALL BE TAKEN TO PREVENT INVOLVE PLACING APPROPRIATE SE

CREEK CROSSINGS

A. SILTATION CONTROL MEASURES SHA
B. APPROPRIATE SEDIMENT CONTROLS
C. NO SOIL SHALL BE STOCKPILED WITH

REHABILITATION

A. PREDISTURBANCE SOIL PROFILES A
B. PREDISTURBANCE VEGETATION PAT

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RPEQ (signature) RPEQ No. 18631 Date: 27/02/23

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Colliers

SCALE: 1:2000 / 1:4000 — 20 0 20 40 60 80 100 — A1 / A3

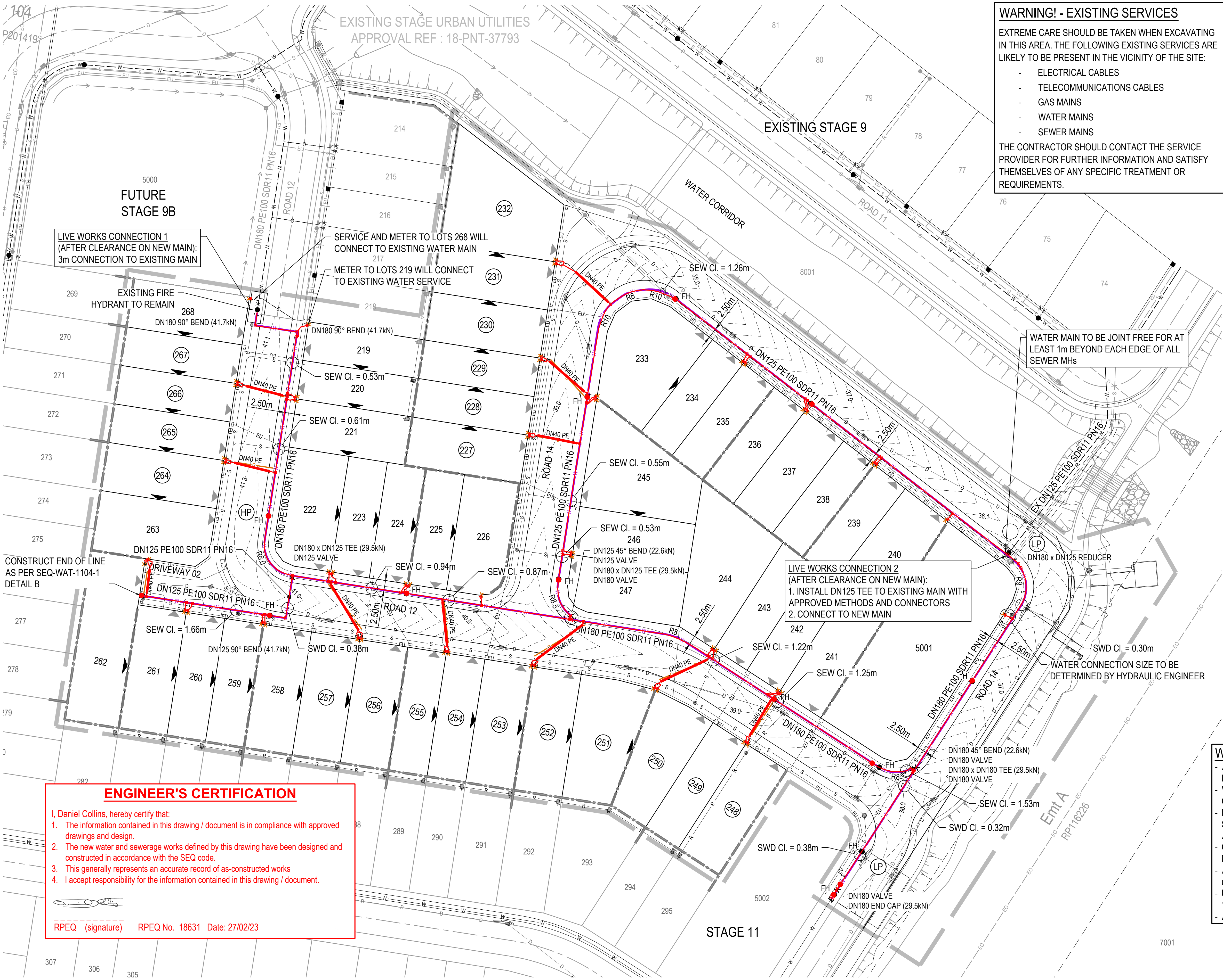
CLIENT: CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED

ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: WOODLINKS VILLAGE - STAGE 10
COOLINGWOOD DRIVE, COOLINGWOOD PARK

DRAWING TITLE: WATER RETICULATION COVER PLAN

PROJECT No.	DRAWING No.	REVISION
18-0176	304	B



WARNING! - EXISTING SERVICES

EXTREME CARE SHOULD BE TAKEN WHEN EXCAVATING IN THIS AREA. THE FOLLOWING EXISTING SERVICES ARE LIKELY TO BE PRESENT IN THE VICINITY OF THE SITE:

- ELECTRICAL CABLES
- TELECOMMUNICATIONS CABLES
- GAS MAINS
- WATER MAINS
- SEWER MAINS

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LEGEND

- PROPOSED AREA OF WORKS
- PROPOSED WATER MAIN
- EXISTING WATER MAIN
- PROPOSED WATER CONDUIT
- EXISTING WATER CONDUIT
- PROPOSED ELECTRICAL CABLE U/G WITH ELECTRICAL PILLARS
- PROPOSED ROAD CONTOUR
- HIGH POINT / LOW POINT
- INDICATIVE DRIVEWAY LOCATION
- ZERO LOT BOUNDARY
- PROPOSED STORMWATER DRAINAGE PIPE
- EXISTING STORMWATER DRAINAGE PIPE
- PROPOSED ROOFWATER DRAINAGE PIPE
- EXISTING ROOFWATER DRAINAGE PIPE
- PROPOSED SEWER MAIN
- EXISTING SEWER MAIN
- EXISTING ELECTRICAL CABLE U/G
- EXISTING ELECTRICAL CABLE U/G
- EXISTING ELECTRICAL CABLE O/H
- EXISTING GAS MAIN

WATER FITTINGS LEGEND

PROPOSED:

- FIRE HYDRANT
- ISOLATION VALVE
- DEAD END
- REDUCER
- WATER SERVICE POINT

EXISTING:

- FIRE HYDRANT
- ISOLATION VALVE
- DEAD END
- WATER SERVICE POINT

AS CONSTRUCTED LEGEND

- WATER MAIN
- VALVE
- HYDRANT
- END CAP
- BEND / TEE / TAPPING BAND
- WATER METER

WATER RETICULATION NOTES:

- ALL WATER MAIN ALIGNMENTS ARE TO BE 2.50m AWAY FROM PROPERTY BOUNDARY, UNLESS NOTED OTHERWISE.
- WATER MAINS MUST CROSS OVER SERVICES WITH MINIMUM COVER PER SEQ Cl. 7.2.4. AND CLEARANCES PER SEQ CODE TABLE 5.5.
- MARKERS FOR PROPERTY SERVICES SHALL BE IN ACCORDANCE WITH SEQ-WAT-1106-1108. MARKERS FOR WATER MAIN CROSSINGS, HYDRANTS AND VALVES SHALL BE IN ACCORDANCE WITH SEQ-WAT-1300-1.
- CONSTRUCT TEST POINTS TO SEQ-WAT-1410-1 AT THE ENDS OF ALL NEW MAINS AND WHERE REQUIRED FOR COMMISSIONING PURPOSES.
- ALL WATER SERVICES BENEATH ROADS MUST BE PLACED WITHIN A Ø100 uPVC CONDUIT. REFER TO SEQ-WAT-1107-1.
- URBAN UTILITIES WATER METERS AND FIRE HYDRANTS MUST BE LOCATED 1.10m CLEAR OF ENERGEX PILLARS.
- ALL VALVES TO BE FULLY RESTRAINED IN ACCORDANCE WITH THE SEQ CODE.

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2. The new water and sewerage works defined by this drawing have been designed and constructed in accordance with the SEQ code.
3. This generally represents an accurate record of as-constructed works
4. I accept responsibility for the information contained in this drawing / document.

[illegible]

RPEQ (signature) RPEQ No. 18631 Date: 27/02/23

URBAN UTILITIES REF. NUMBER. : 18-PNT-37795

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	17.06.22	CL	AK	ISSUED FOR CONSTRUCTION
B	27.02.23	CL	AK	AS CONSTRUCTED

DRAWN

DESIGN

STATUS: **AS CONSTRUCTED**

APPROVED: DANIEL COLLINS RPEQ 18631 DATE

FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

SCALE: 1:500 A1, 1:1000 A3 (10 5 0 10 20)

CLIENT: **CANBERRA ESTATES CONSORTIUM NO. 36 PTY LIMITED**

ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: **WOODLINKS VILLAGE - STAGE 10**

COOLINGWOOD DRIVE, COOLINGWOOD PARK

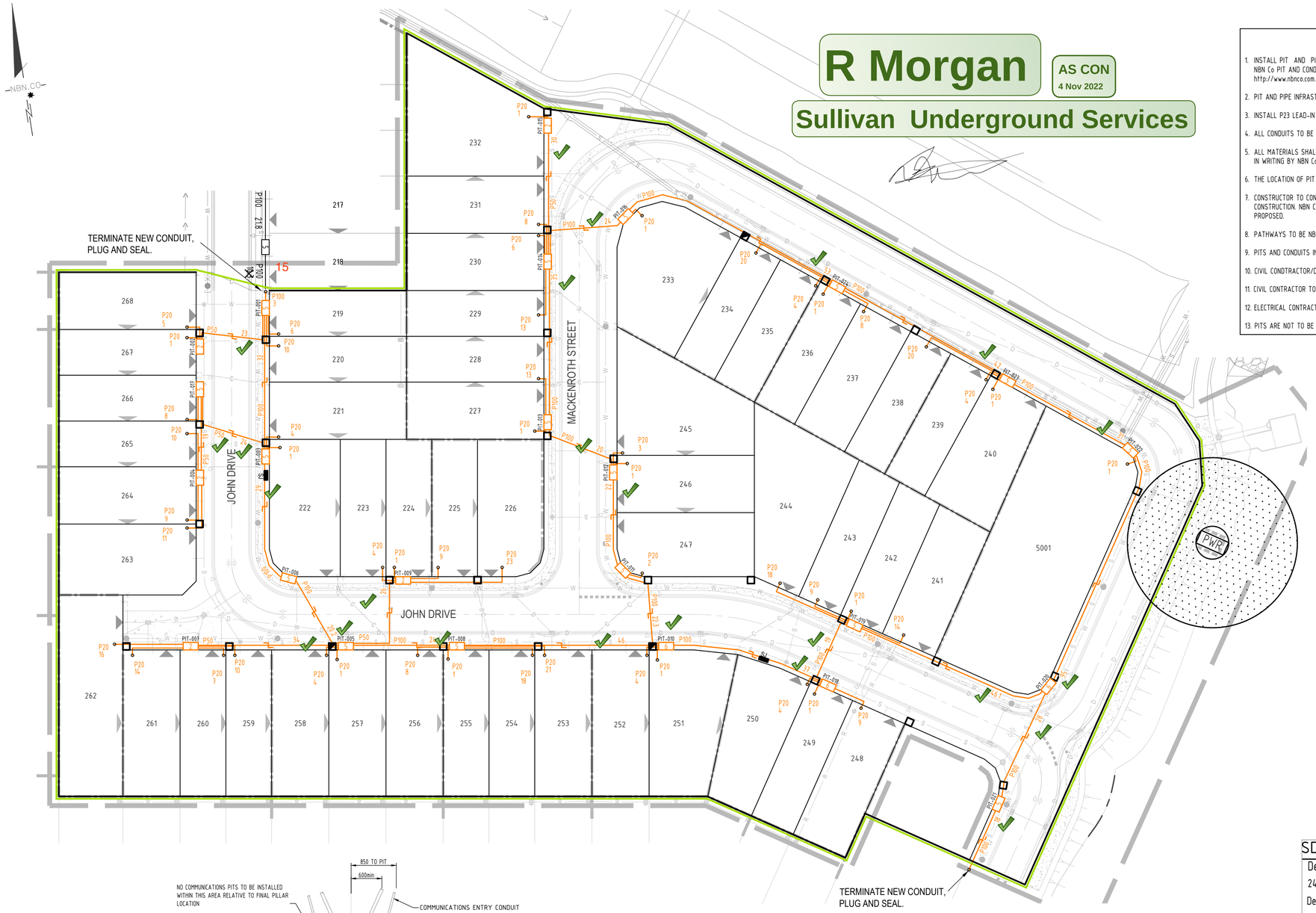
DRAWING TITLE: **WATER RETICULATION LAYOUT PLAN**

PROJECT No.	DRAWING No.	REVISION
18-0176	305	B

R Morgan

AS CON
4 Nov 2022

Sullivan Underground Services



NOTES

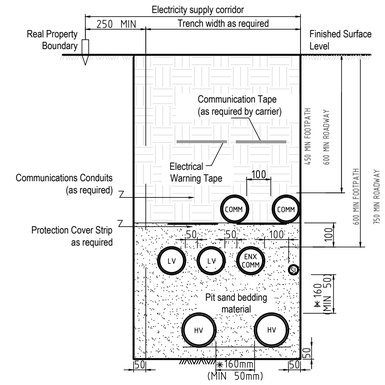
1. INSTALL PIT AND PIPE INFRASTRUCTURE TO NBN Co SPECIFICATION AND STANDARDS. NBN Co PIT AND CONDUIT INFRASTRUCTURE GUIDE LINES FOR DEVELOPERS CAN BE FOUND ONLINE AT http://www.nbnco.com.au/industry/new-developments.html
2. PIT AND PIPE INFRASTRUCTURE TO BE INSPECTED BY NBN Co AFTER INSTALLATION.
3. INSTALL P23 LEAD-IN PIPES FROM PIT TO PROPERTY ENTRY POINT AND PLUG.
4. ALL CONDUITS TO BE INSTALLED IN JOINT USE TRENCH UNLESS DETAILED OTHERWISE.
5. ALL MATERIALS SHALL BE TO NBN Co SPECIFICATION. ALTERNATIVES WILL ONLY BE ACCEPTED IF AGREED TO IN WRITING BY NBN Co.
6. THE LOCATION OF PIT AND PIPE INFRASTRUCTURE SHALL ALSO COMPLY WITH THE REQUIREMENTS OF ENERGEX.
7. CONSTRUCTOR TO CONFIRM FINAL LOCATION OF PROPOSED DRIVEWAYS AND SERVICES PRIOR TO CONSTRUCTION. NBN Co PITS TO BE INSTALLED CLEAR OF DRIVEWAYS & OTHER SERVICES INCLUDING ALL PROPOSED.
8. PATHWAYS TO BE NBN FIBRE READY.
9. PITS AND CONDUITS INDICATIVE LOCATIONS.
10. CIVIL CONDTRACTOR/DEVELOPER TO INSTALL INTERNAL CONDUITS IN PRIVATE PROPRETY.
11. CIVIL CONTRACTOR TO INSTALL ALL NEW ROAD CROSSINGS
12. ELECTRICAL CONTRACTOR TO INSTALL INTERNAL PITS.
13. PITS ARE NOT TO BE INSTALLED IN VEHICULAR DIVEWAYS.

LEGEND

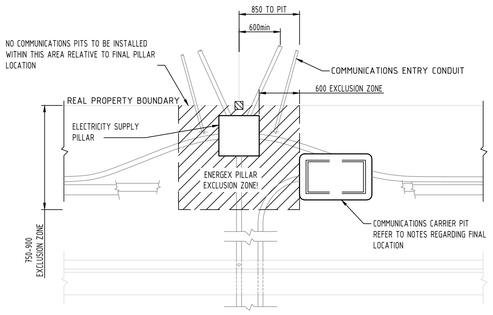
	EXISTING TELSTRA UG CABLE
	EXISTING AERIAL CABLE
	TELSTRA PLANT IN SHARED UTILITY TRENCH
	PROPOSED NBN UNDERGROUND CONDUIT IN SHARED UTILITY TRENCH
PIT-ID 2	Service Drop Access Pit (650mmX280mmX565mm)
PIT-ID 5	Network Boundary/Local Network Pit (Single Lid) (700mmX450mmX650mm)
PIT-ID 8	Distribution/Local Network Connection Pit (1360mmX555mmX860mm)
PIT-ID 9	Fibre Distribution Hub (FDH) Pit (2000mmX555mmX900mm)
	Existing Telstra manhole
S	Existing Telstra Pit (2,3,4,5,6,7,8,9)
	Telstra exchange
	Example of Telstra Major Conduit Layout with Proposed duct marked to be used by NBN
PCD	Premise Connection Device (PCD)
FAN	Fan Access Node site (FAN)
C/L	nbn Cable Transition Location
NTD	nbn Network Termination Device
	Energex Pillar

TYPICAL COMMON TRENCH ELECTRICITY AND COMMUNICATION SECTION DETAIL

NTS



FOOTPATH ON PUBLIC ROADS



COMMS PIT LOCATION DETAIL

Fire Ant Caution Biosecurity Zone For Info Call 13 25 23

DO NOT CONSTRUCT DRIVEWAYS/CROSSOVERS UNTIL ELECTRICAL WORKS ARE COMPLETED.

DEVELOPER TO SUBMIT AS BUILT DESIGNS TO AMPFLO AT comms@ampflo.com.au TO BE PROCESSED BY NBN

BILL OF MATERIAL

NO OF LOTS: 51

PITS SIZE	PITS QTY	DUCTS SIZE	DUCTS QTY	DUCTS MTRS
2	5	P100	20	607.6
5	16	P50	6	156
6	3	P20	51	371
8	0			
9	0			

TOTAL NUMBER OF PITS: 24
TOTAL NUMBER OF MANHOLES: 0
TOTAL NUMBER OF CONDUITS: 77
TOTAL LENGTH OF CONDUITS: 1134.6

Total rope 775.6m

SDU Development Information

Development Name:
246 COLLINGWOOD DR COLLINGWOOD PARK
Developer Company:
CANBERRA ESTATES CONSORTIUM NO 36 PTY LIMITED
Development Address:
246 COLLINGWOOD DR COLLINGWOOD PARK
Authorised Rep:
AMPFLO PTY LTD
Phone: (07) 3372 9280
E-Mail: comms@ampflo.com.au
nbn Reference Number: STG-W
Stage Number: 10
Design Revision: A

PRELIMINARY ISSUE
(NOT FOR CONSTRUCTION)
19/07/2022 10:16 AM

TO BE BUILT IN CONJUNCTION WITH ELECTRICAL RETICULATION A201340

DIAL BEFORE YOU DIG www.1100.com.au

REV	DATE	DRAFTER	DESCRIPTION	APPROVED
-				
-				
-				
-				
-				
-				
-				
A	19.07.2022	AB	PRELIMINARY DESIGN	BK

STRICTLY CONFIDENTIAL

NBNCO APPROVAL RECORD:
SIGNATURE DATE
DD
WD
AB
QUALITY RECORD :

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Australia's broadband network

ampflo
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Electrical and Telecommunications Consultants
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ampflo.com.au

N KEY PLAN

MAP1 MAP2 SHEET1 MAP3 MAP4

DRAWING TITLE:
STG-W
246 COLLINGWOOD DRIVE COLLINGWOOD PARK
WOODLINKS STAGE 10
PIT & PIPE DESIGN

ENABLE#: 431050
STATE: QLD REGION: MGA 56
FSA: SAM: ADA:
PROJECT No: 201340
CADREF No: T201340
SCALE 1:500 SHEET No. 1 OF 1 REV. A