TILLERMAN

PARK RIDGE

PROPOSED RESIDENTIAL DEVELOPMENT

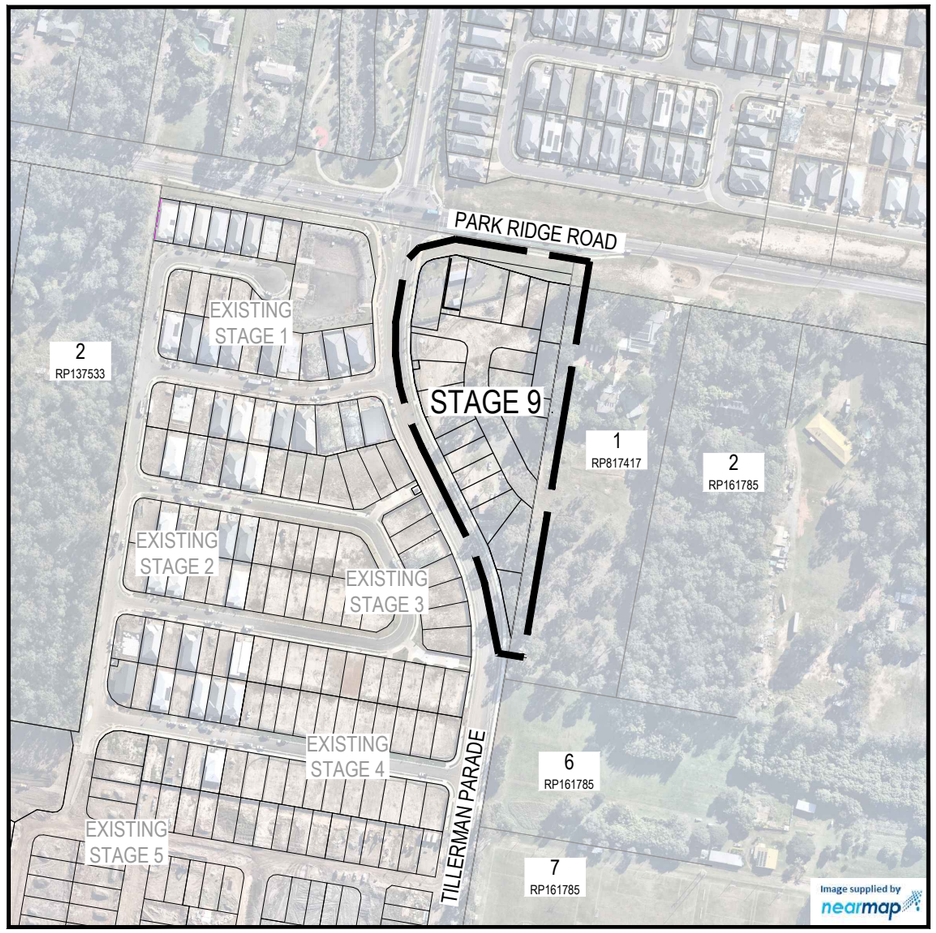
STAGE 9 OPERATIONAL WORKS

133-159 PARK RIDGE ROAD, PARK RIDGE

FOR 'HB PARK RIDGE'

DRAWING LIST

SEWERAGE AND WATER RETICULATION



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

ESTATE/STAGE	TILLERMAN STAGE 9
CLIENT	HB PARK RIDGE
LOGAN WATER APPLICATION No.	RL/77/2023
LOGAN WATER APPROVAL DATE	
No. OF ALLOTMENTS	21

ASSET REGISTER - SEWERAGE

	DIAMETER	MATERIAL		LENGTH	
		DESIGN	CONST	DESIGN	CONST
MAINS	DN110	uPVC SN8	-	~~50m~~	66m
	DN160	uPVC SN8	-	~~313m~~	302m

ASSET REGISTER - WATER RETICULATION

	DIAMETER	MATERIAL		LENGTH	
		DESIGN	CONST	DESIGN	CONST
MAINS	DN125	PVC-M PN16	-	-	-
	DN180	PVC-M PN16	-	~~256m~~	252m
	DN250	PVC-M PN16	-	-	-
SERVICES	DIAMETER	MATERIAL		LENGTH	
		DESIGN	CONST	DESIGN	CONST
	DN25	PVC-M PN16	-	~~22m~~	75m
	DN32	PVC-M PN16	-	~~13m~~	-
	DN40	PVC-M PN16	-	~~50m~~	-
METERS	DIAMETER	NUMBER			
		DESIGN	CONST	DESIGN	CONST
	20Ø	PVC-M PN16	-	~~20~~	-
	25Ø	PVC-M PN16	-	-	-
	32Ø	PVC-M PN16	-	-	-

ENGINEER'S CERTIFICATION

I, Daniel Collins, hereby certify that:
As Constructed information shown on this plan is a true and correct record of the sizes, types, materials, classes etc., and it corresponds with the relevant approved Engineering Drawings.

RPEQ (signature) RPEQ No. 18631 Date: 30/09/2025

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
0	28.02.25	JW	AK	ISSUED FOR CONSTRUCTION
1	30.09.25	JW	HC	AS CONSTRUCTED

DRAWN
DESIGN
STATUS: AS CONSTRUCTED
APPROVED DATE 28.02.25
FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

SCALE
1:2500 1:5000 50 0 50 100 A1 A3

CLIENT: HB Land
ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: TILLERMAN PARK RIDGE
STAGE 9
133-159 PARK RIDGE ROAD, PARK RIDGE

DRAWING TITLE: SEWERAGE AND WATER RETICULATION COVER PLAN

PROJECT No.	DRAWING No.	REVISION
22-0495	300	1

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. 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.
7. 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.
8. 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.
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.

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.
C. ACID SULPHATE SOILS EXIST IN THE WORKS AREA. THE OUTPUTS FROM THE RISK ASSESSMENT BASED ON THE QUEENSLAND ACID SULPHATE SOIL TECHNICAL MANUAL REQUIRES THAT ACID SULPHATE SOILS BE MANAGED AS FOLLOWS:

CREEK CROSSINGS

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

REHABILITATION

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

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 CONSTRUCTION OF THE SEWERAGE WORK SHOWN ON THIS DRAWING SHALL BE SUPERVISED BY AN ENGINEER WHO HAS RPEQ REGISTRATION. SEWERAGE WORKS NOT COMPLYING WITH THIS REQUIREMENT WILL NOT BE PERMITTED TO CONNECT INTO THE SEQ SERVICE PROVIDER SEWERAGE SYSTEM.
4. ALL WORKS ON EXISTING SEWER MAINS ARE TO BE CARRIED OUT BY LOGAN CITY COUNCIL AT THE DEVELOPER'S EXPENSE OR AS DIRECTED BY LOGAN CITY COUNCIL.
5. ALL PIPES AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE "ACCEPTED PRODUCTS AND MATERIALS" LIST, UNLESS APPROVED BY THE WATER AUTHORITY.
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 THE SEQ SERVICE PROVIDER UNLESS CERTIFICATES ARE PRODUCED CERTIFYING THAT THE REQUIRED COMPACTION HAS BEEN ACHIEVED.
8. 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.
9. SEWERS SHALL BE DISUSED/ABANDONED IN ACCORDANCE WITH PROCEDURE SET OUT IN THE GRAVITY SEWER CODE.
10. EACH ALLOTMENT SHALL BE SERVED BY A 100Ø PVC PROPERTY CONNECTION. FOR ALLOTMENTS OTHER THAN SINGLE RESIDENTIAL, A 150Ø PVC 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 (500mm FOR LCC) AND A MAXIMUM OF 750mm.
11. EXISTING ALLOTMENTS REQUIRING A PROPERTY CONNECTIONS FROM EXISTING SEWERS SHALL BE PROVIDED BY THE SEQ SERVICE PROVIDER AT THE DEVELOPERS COST.

ALL WATER AND SEWERAGE CONSTRUCTION SHALL COMPLY WITH ALL QUEENSLAND LEGISLATION

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

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-1104-1 AND SEQ-SEW-1105-1.

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 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.
4. ALL MATERIALS USED IN THE WORKS SHALL COMPLY WITH THE SEQ-SP'S ACCEPTED PRODUCTS AND MATERIALS LIST OR BE APPROPRIATELY SHOWN, LISTED AND DEFINED IN THE ENGINEERING SUBMISSION SO THAT THE ALTERNATIVE PRODUCT OR MATERIAL CAN BE ASSESSED AND IF APPROPRIATE, APPROVED BY THE SEQ-SP.
5. ADOPT LIP OF KERB OR SHOULDER OF ROAD AS PERMANENT LEVEL.
6. COVER ON MAINS FROM PERMANENT LEVEL TO BE AS SHOWN IN SEQ-WAT-1200-2.
7. CONDUITS TO BE INSTALLED IN ACCORDANCE WITH THE STANDARD DRAWINGS.
8. A WATER METER SUPPLIED AT THE DEVELOPER'S COST, IS TO BE INSTALLED AT THE SERVICE POINT OF EACH LOT IN ACCORDANCE WITH THE STANDARD DRAWING FOR THE SEQ-SP.
9. HYDRANTS TO BE INSTALLED AT THE END OF ALL NEW MAINS WHERE REQUIRED FOR TESTING AND COMMISSIONING PURPOSES.

ENGINEER'S CERTIFICATION

I, Daniel Collins, hereby certify that:
As Constructed information shown on this plan is a true and correct record of the sizes, types, materials, classes etc., and it corresponds with the relevant approved Engineering Drawings.

RPEQ (signature) RPEQ No. 18631 Date: 30/09/2025

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
0	28.02.25	JW	AK	ISSUED FOR CONSTRUCTION
1	30.09.25	JW	HC	AS CONSTRUCTED

DRAWN

DESIGN

STATUS: AS CONSTRUCTED

APPROVED DATE 28.02.25

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

SCALE

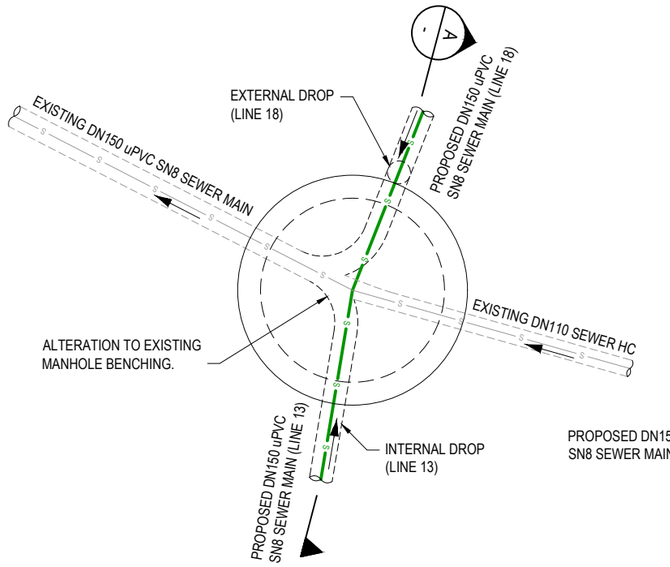
CLIENT: HB Land

ASSOCIATED CONSULTANT
SAUNDERS HAVILL GROUP
PH: 1300 123 744

PROJECT NAME: TILLERMAN PARK RIDGE
STAGE 9
133-159 PARK RIDGE ROAD, PARK RIDGE

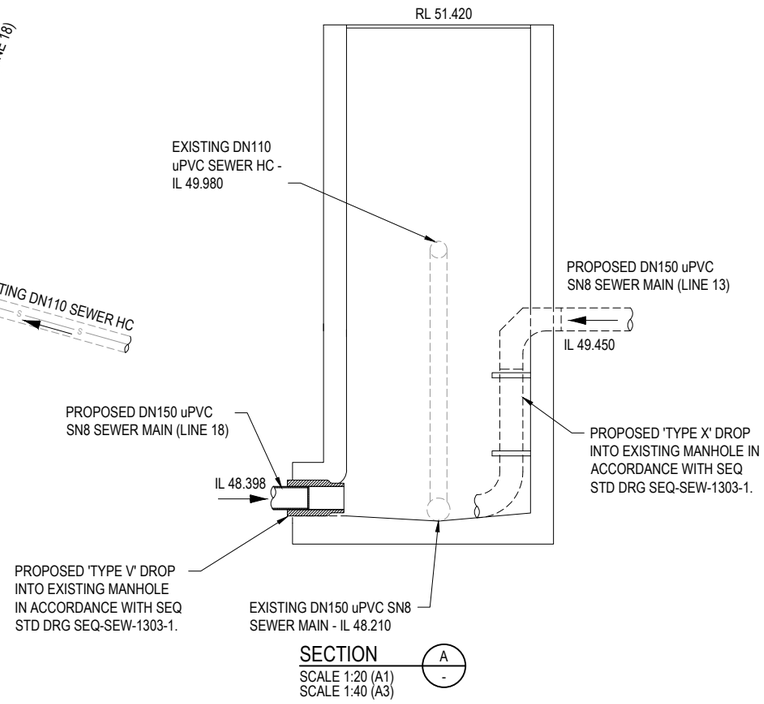
DRAWING TITLE: SEWERAGE AND WATER RETICULATION GENERAL NOTES

PROJECT No.	DRAWING No.	REVISION
22-0495	301	1



SEWER MANHOLE EX1/13 1200mm

1:20 (A1)
1:40 (A3)



SECTION A

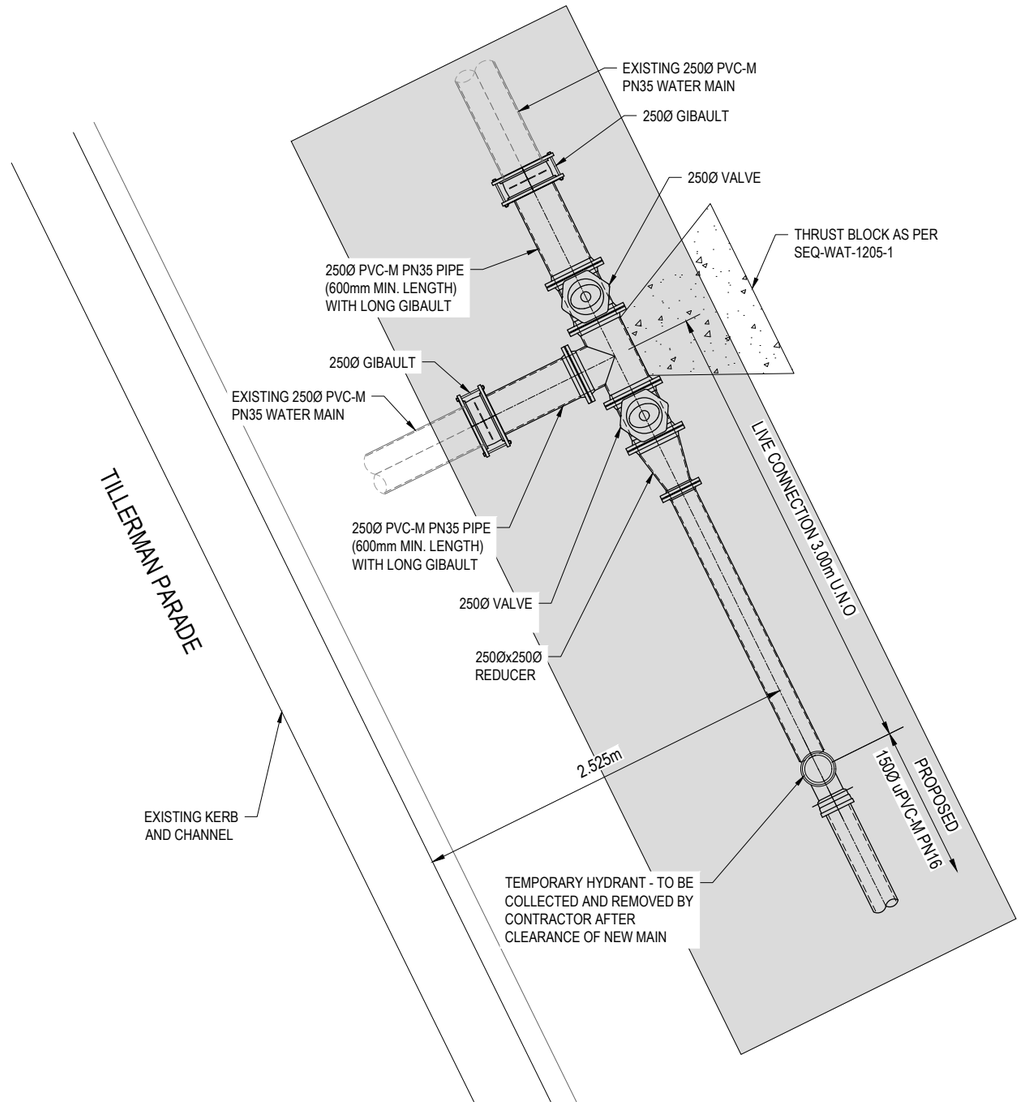
SCALE 1:20 (A1)
SCALE 1:40 (A3)

LIVE WORKS NOTES:

1. ALL LIVE WORKS SHALL BE UNDERTAKEN BY THE CONTRACTOR IN ACCORDANCE WITH AN APPROVED NETWORKS ACCESS PERMIT, UNDER THE SUPERVISION OF LOGAN WATER , AT THE DEVELOPERS EXPENSE.
2. LIVE WORKS CANNOT COMMENCE UNTIL ALL RELEVANT TEST CERTIFICATES HAVE BEEN PROVIDED AND ACCEPTED BY LOGAN WATER .
3. PRE-CHLORINATED WATER FITTINGS SHALL BE USED FOR ALL DRINKING WATER LIVE WORKS CONNECTIONS.

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)	CONTRACTOR UNDER LOGAN WATER SUPERVISION TO INSTALL MECHANICAL PLUG EX/1/3 PRIOR TO COMMENCEMENT OF ANY WORKS.	DN150	EX1/13	MH	B	LOT 1011 PLAN 303	~~51.420~~ 51.43	51.420	~~49.450~~ 49.40	~~1.970~~ 2.03	Y
1 (B)	CONTRACTOR UNDER LOGAN WATER SUPERVISION TO CORE INTO EX1/13 AND CONSTRUCT A NEW 'TYPE X' DROP INTO EX1/3, FOR CONNECTION TO LINE 13. CONSTRUCT A 150mm STUB INTO MH EX1/13.										
1 (C)	0.5m FROM EXISTING STUB, CONTRACTOR TO LAY NEW SEWER, AFTER CLEANSING, TESTING AND INSPECTION.										
2 (A)	CONTRACTOR UNDER LOGAN WATER SUPERVISION TO CORE INTO EX1/13 AND CONSTRUCT A NEW 'TYPE X' DROP INTO EX1/3, FOR CONNECTION TO LINE 13. CONSTRUCT A 150mm STUB INTO MH EX1/13.	DN150	EX1/13	MH	B	LOT 1011 PLAN 303	~~51.420~~ 51.43	51.420	~~49.450~~ 49.40	~~1.970~~ 2.03	Y
2 (B)	0.5m FROM EXISTING STUB, CONTRACTOR TO LAY NEW SEWER, AFTER CLEANSING, TESTING AND INSPECTION.										
3 (A)	CONTRACTOR UNDER LOGAN WATER TO AMEND THE BENCHING OF EX1/13 TO ACCOMMODATE LIVE CONNECTIONS 1 & 2.										
4 (A)	CONTRACTOR UNDER LOGAN WATER SUPERVISION TO REMOVE MECHANICAL PLUG AND MAKE LIVE CONNECTION AFTER SUCCESSFUL ON-MAINTENANCE INSPECITON										



LIVE WATER CONNECTION 1 DETAIL

SCALE 1:20 (A1)
1:40 (A3)

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RPEQ (signature) RPEQ No. 18631 Date: 30/09/2025

WATER RETICULATION LIVE CONNECTIONS

CONNECTION 1			
STREET	TILLERMAN PARADE		
LOCATION	NEXT TO LOT 1004 AND 1005		
LENGTH	3.00m	TYPE OF MAIN	DN150 PVC-M PN16
DATE COMMENCED		DATE COMPLETED	
SIGNATURE			

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
0	28.02.25	JW	AK	ISSUED FOR CONSTRUCTION
1	30.09.25	JW	HC	AS CONSTRUCTED

DRAWN

DESIGN

STATUS: AS CONSTRUCTED

APPROVED DATE 28.02.25

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

Colliers

SCALE

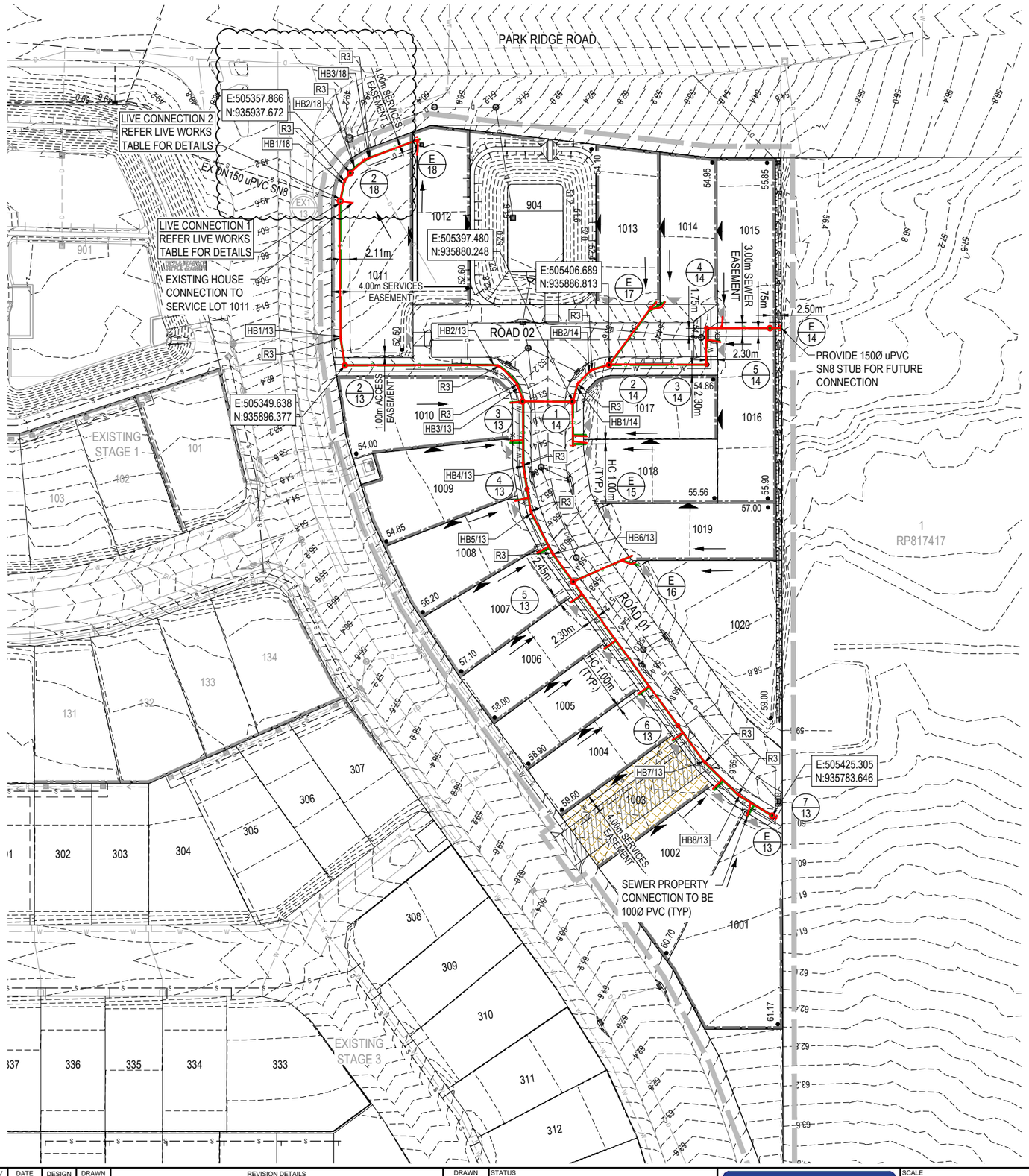
CLIENT: HB Land

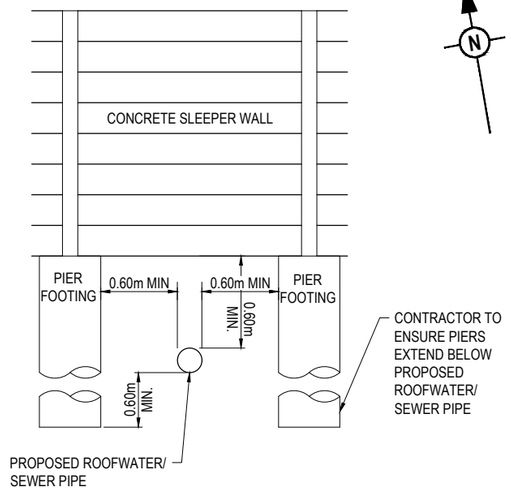
ASSOCIATED CONSULTANT
SAUNDERS HAVILL GROUP
PH: 1300 123 744

PROJECT NAME: TILLERMAN PARK RIDGE
STAGE 9
133-159 PARK RIDGE ROAD, PARK RIDGE

DRAWING TITLE: SEWERAGE AND WATER RETICULATION LIVE WORKS DETAILS

PROJECT No.	DRAWING No.	REVISION
22-0495	302	1

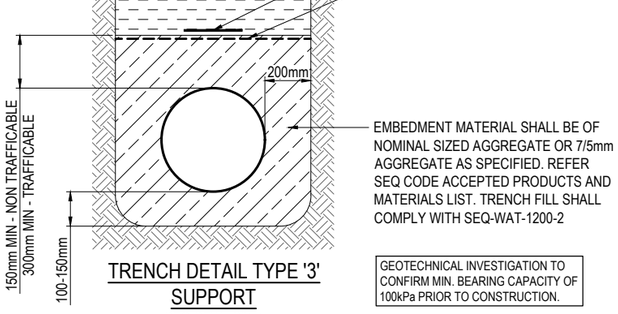




TYPICAL CONCRETE SLEEPER WALL OVER ROOFWATER OR SEWER DETAIL

N.T.S

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



TRENCH DETAIL TYPE '3' SUPPORT

SEQ-SEW-1201-1

GEOTECHNICAL INVESTIGATION TO CONFIRM MIN. BEARING CAPACITY OF 100kPa PRIOR TO CONSTRUCTION.

AS CONSTRUCTED LEGEND

- SEWER MAIN
- SEWER MANHOLE
- BEND
- REDUCER
- END CAP

LEGEND

- PROPOSED AREA OF WORKS
- PROPOSED SEWER MAIN
- EXISTING SEWER MAIN
- 24.60 — SEWER LOT CONTROL SURFACE LEVEL
- INDICATIVE DRIVEWAY LOCATION
- ZERO LOT BOUNDARY
- 24.6 — FINISHED 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 WATER SERVICE POINT
- ELECTRICAL PILLAR - REFER ELECTRICAL DRAWINGS FOR DESIGN
- 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

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.

ENGINEER'S CERTIFICATION

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RPEQ (signature) RPEQ No. 18631 Date: 30/09/2025

RP DESCRIPTION
LOT 3 ON SP137533
DATUM LEVEL AND LOCATION
PM70079 RL 57.043 AHD
LOCATED: 133-159 PARK RIDGE ROAD, PARK RIDGE

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
0	28.02.25	JW	AK	ISSUED FOR CONSTRUCTION
1	28.05.25	CL	CL	LINE 18 AMENDED
2	30.09.25	CL	HC	AS CONSTRUCTED

DRAWN

DESIGN

STATUS: **AS CONSTRUCTED**

APPROVED DATE 28.02.25

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

Colliers

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

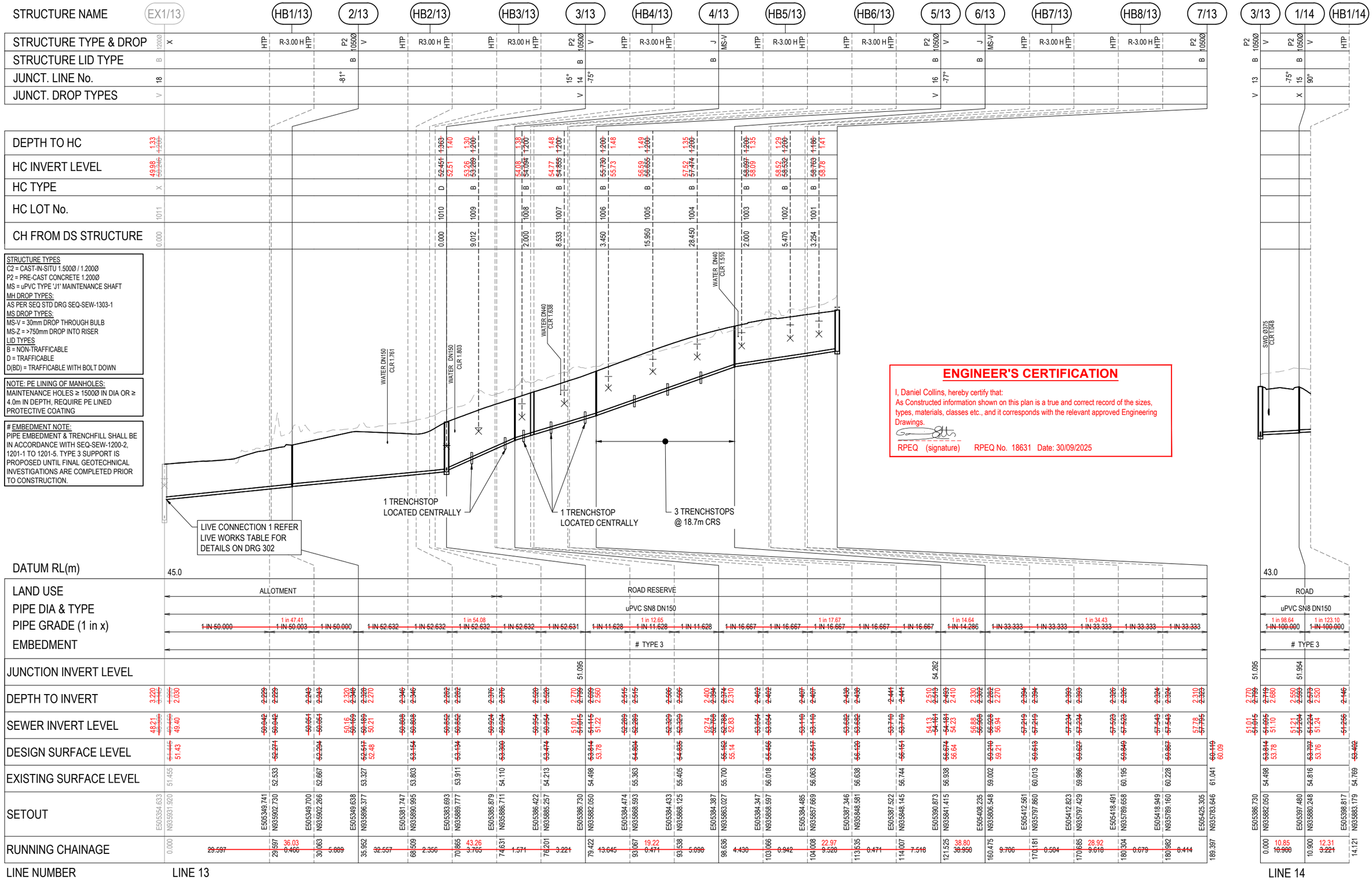
CLIENT: HB Land

ASSOCIATED CONSULTANT
SAUNDERS HAVILL GROUP
PH: 1300 123 744

PROJECT NAME: TILLERMAN PARK RIDGE
STAGE 9
133-159 PARK RIDGE ROAD, PARK RIDGE

DRAWING TITLE: **SEWERAGE LAYOUT PLAN**

PROJECT No.	DRAWING No.	REVISION
22-0495	303	2



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REV	DATE	DESIGN	DRAWN	REVISION DETAILS
0	28.02.25	JW	AK	ISSUED FOR CONSTRUCTION
1	12.03.25	JW	AK	SEWER LINE 13 AND 14 UPDATED
2	30.09.25	JW	HC	AS CONSTRUCTED

DRAWN
DESIGN
STATUS: AS CONSTRUCTED
APPROVED
DATE 28.02.25
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 A3
HORIZONTAL
1:100 2 1 0 2 4 A1
1:200 A3
VERTICAL

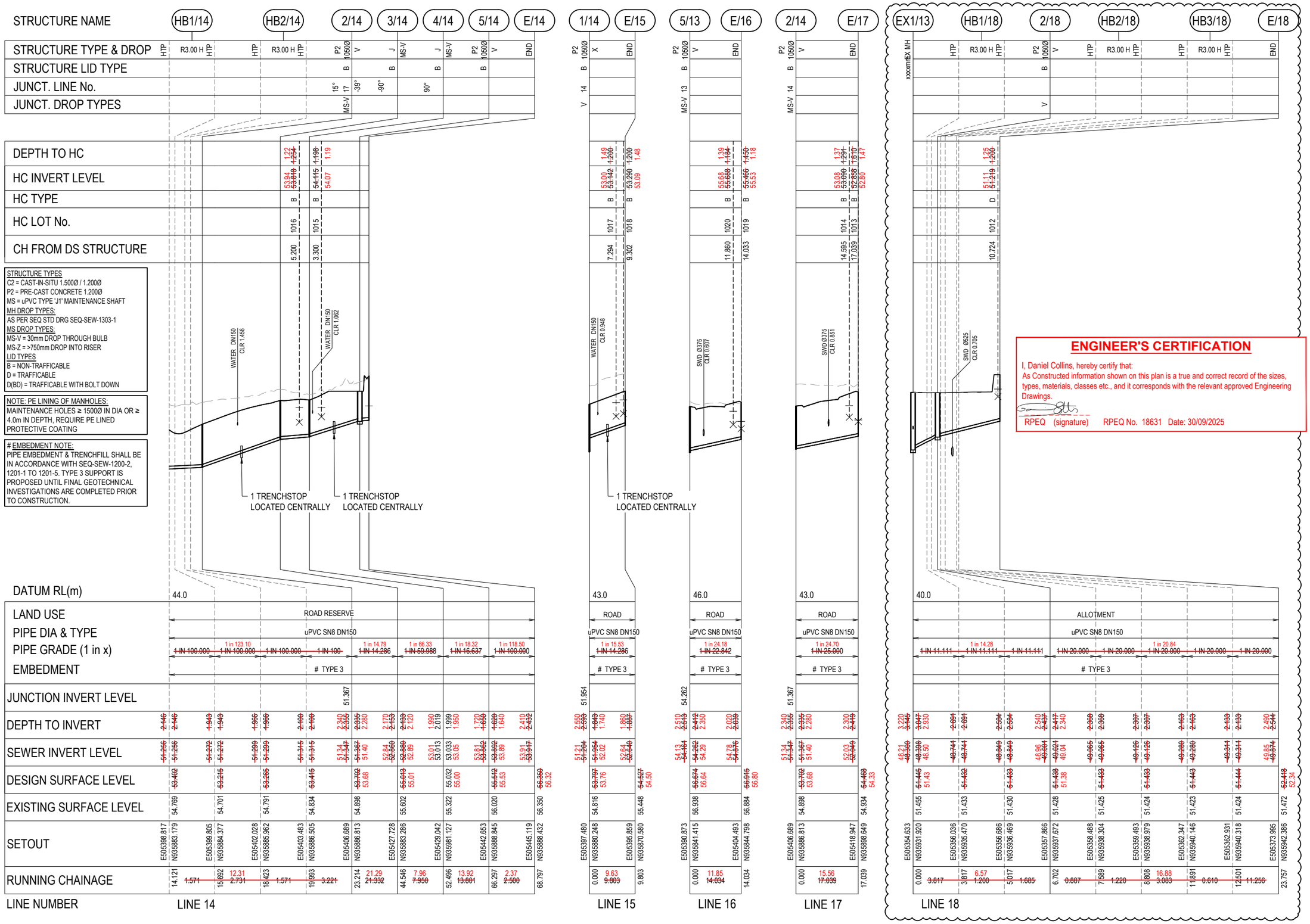
CLIENT: HB Land

ASSOCIATED CONSULTANT
SAUNDERS HAVILL GROUP
PH: 1300 123 744

PROJECT NAME
TILLERMAN PARK RIDGE
STAGE 9
133-159 PARK RIDGE ROAD, PARK RIDGE

DRAWING TITLE
SEWERAGE LONGITUDINAL SECTIONS SHEET 1 OF 2

PROJECT No.	DRAWING No.	REVISION
22-0495	304	2



REV	DATE	DESIGN	DRAWN	REVISION DETAILS
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1	12.03.25	JW	AK	SEWER LINE 14 SETOUT UPDATED
2	28.05.25	CL	CL	LINE 18 AMENDED
3	30.09.25	CL	HC	AS CONSTRUCTED

DRAWN
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APPROVED
DATE 28.02.25
FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

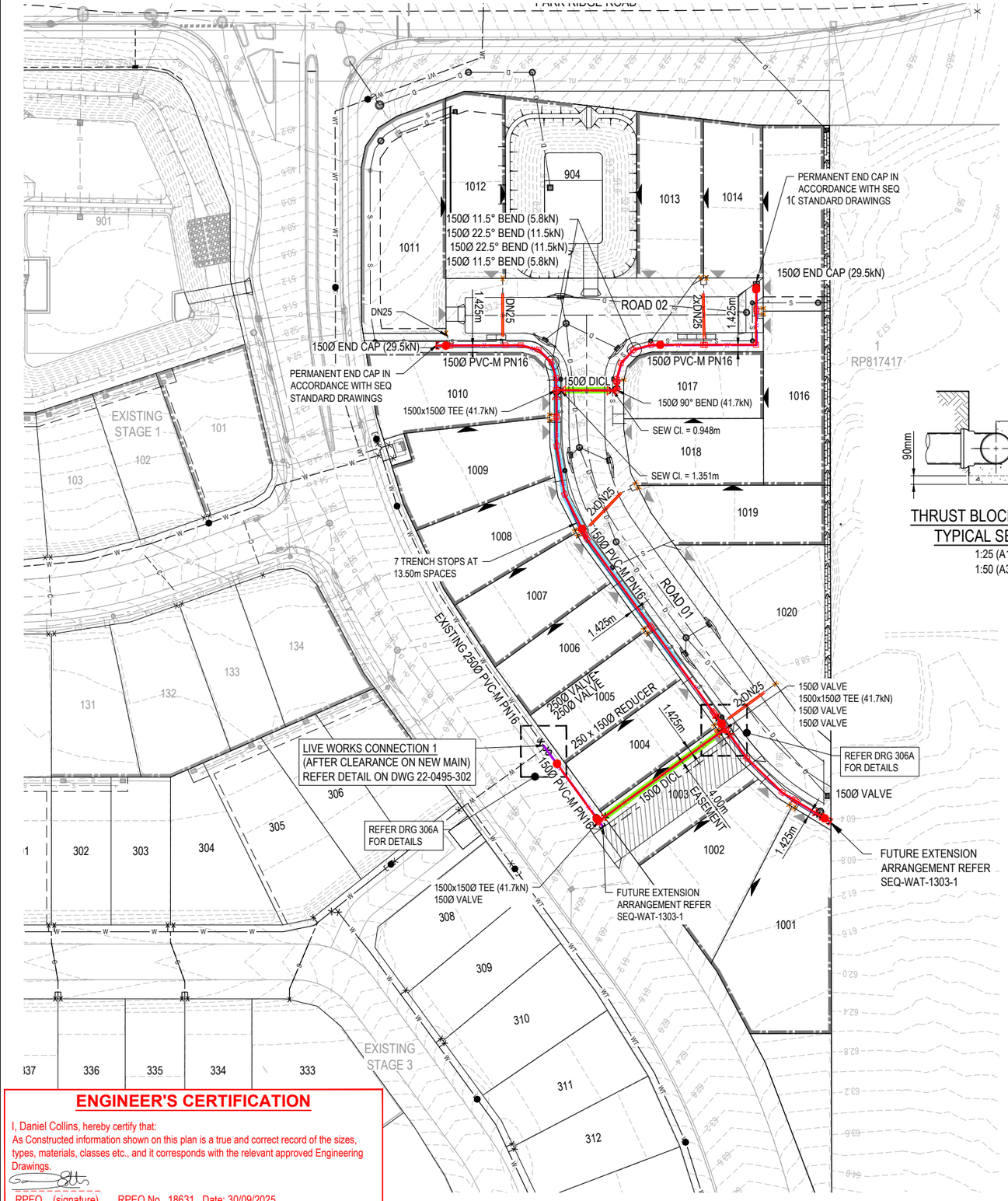
SCALE
1:1000 10 0 10 20 30 40 50 A1
1:2000 A3
HORIZONTAL
1:100 2 1 0 2 4 A1
1:200 A3
VERTICAL

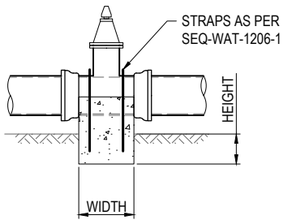
CLIENT: HB Land
ASSOCIATED CONSULTANT
SAUNDERS HAVILL GROUP
PH: 1300 123 744

PROJECT NAME: TILLERMAN PARK RIDGE
STAGE 9
133-159 PARK RIDGE ROAD, PARK RIDGE

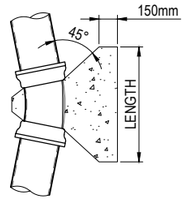
DRAWING TITLE
SEWERAGE LONGITUDINAL SECTIONS SHEET 2 OF 2

PROJECT No.	DRAWING No.	REVISION
22-0495	305	3



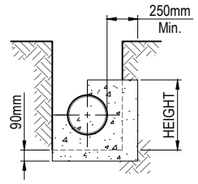


ANCHOR BLOCK DETAIL VALVE
1:25 (A1)
1:50 (A3)

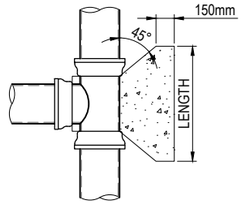


THRUST BLOCK DETAIL HORIZONTAL BEND
1:25 (A1)
1:50 (A3)

THRUST BLOCK FOR TEE TYPICAL SECTION
1:25 (A1)
1:50 (A3)



THRUST BLOCK FOR BENDS TYPICAL SECTION
1:25 (A1)
1:50 (A3)



THRUST BLOCK DETAIL TEE
1:25 (A1)
1:50 (A3)

THRUST BLOCK TABLE 150Ø PIPES - HORIZ. BENDS

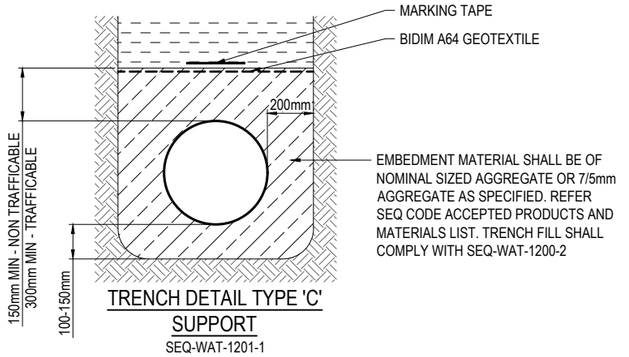
GRADE N20 CONCRETE (UNREINFORCED) 1200 kPa		
BEND ANGLE	LENGTH (mm)	HEIGHT (mm)
11.25°	600	450
22.5°	600	450
45°	600	450
90°	930	450

FOR FITTING AND THRUST/ANCHOR BLOCK NOTES, ADDITIONAL DETAILS AND REINFORCEMENT DETAILS REFER STD DWG SEQ-WAT-1205-1, SEQ-WAT-1206-1,SEQ-WAT-1207-1.

GEOTECHNICAL INVESTIGATION TO CONFIRM MIN. BEARING CAPACITY OF 100kPa PRIOR TO CONSTRUCTION

AS CONSTRUCTED LEGEND

- WATER MAIN
- WATER PIPE
- TAPPING BAND/ TEE
- VALVE
- FIRE HYDRANT
- END CAP



TRENCH DETAIL TYPE 'C' SUPPORT
SEQ-WAT-1201-1

LEGEND

- PROPOSED AREA OF WORKS
- PROPOSED WATER MAIN
- PROPOSED EXTERNAL WORKS WATER MAIN
- PROPOSED DICL WATER MAIN
- PROPOSED MAIN REQUIRING TRENCHSTOPS IN ACCORDANCE WITH SEW-WAT-1209-1
- FINISHED SURFACE CONTOUR
- EXISTING TRUNK WATER MAIN
- EXISTING WATER MAIN
- PROPOSED WATER CONDUIT
- PROPOSED STORMWATER DRAINAGE PIPE
- EXISTING STORMWATER DRAINAGE PIPE
- PROPOSED ROOFWATER DRAINAGE PIPE
- PROPOSED SEWER MAIN
- EXISTING SEWER MAIN
- PROPOSED TELSTRA CABLE
- INDICATIVE DRIVEWAY LOCATIONS
- ZERO LOT BOUNDARY

WATER FITTINGS LEGEND

PROPOSED:

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

EXISTING:

- FIRE HYDRANT
- ISOLATION VALVE
- DEAD END

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:

- WATER MAINS MUST CROSS OVER SERVICES WITH MINIMUM COVER PER SEQ Cl. 7.4.2. AND CLEARANCES PER SEQ CODE TABLE 5.5.
- ALL VALVES TO BE FULLY RESTRAINED IN ACCORDANCE WITH THE SEQ CODE.
- 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.
- ALL FITTINGS (HYDRANTS, VALVES, WATER SERVICE CONNECTIONS ETC) MUST BE INSTALLED ON STRAIGHT SECTIONS OF WATER MAIN.

ENGINEER'S CERTIFICATION

I, Daniel Collins, hereby certify that:
As Constructed information shown on this plan is a true and correct record of the sizes, types, materials, classes etc., and it corresponds with the relevant approved Engineering Drawings.

RPEQ (signature) RPEQ No. 18631 Date: 30/09/2025

RP DESCRIPTION
LOT 3 ON SP137533

DATUM LEVEL AND LOCATION
PM70079 RL 57.043 AHD
LOCATED: 133-159 PARK RIDGE ROAD, PARK RIDGE

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
0	28.02.25	JW	AK	ISSUED FOR CONSTRUCTION
1	30.09.25	JW	HC	AS CONSTRUCTED

DRAWN
DESIGN
STATUS: AS CONSTRUCTED
APPROVED
DATE 28.02.25
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: HB Land

ASSOCIATED CONSULTANT
SAUNDERS HAVILL GROUP
PH: 1300 123 744

PROJECT NAME: TILLERMAN PARK RIDGE
STAGE 9
133-159 PARK RIDGE ROAD, PARK RIDGE

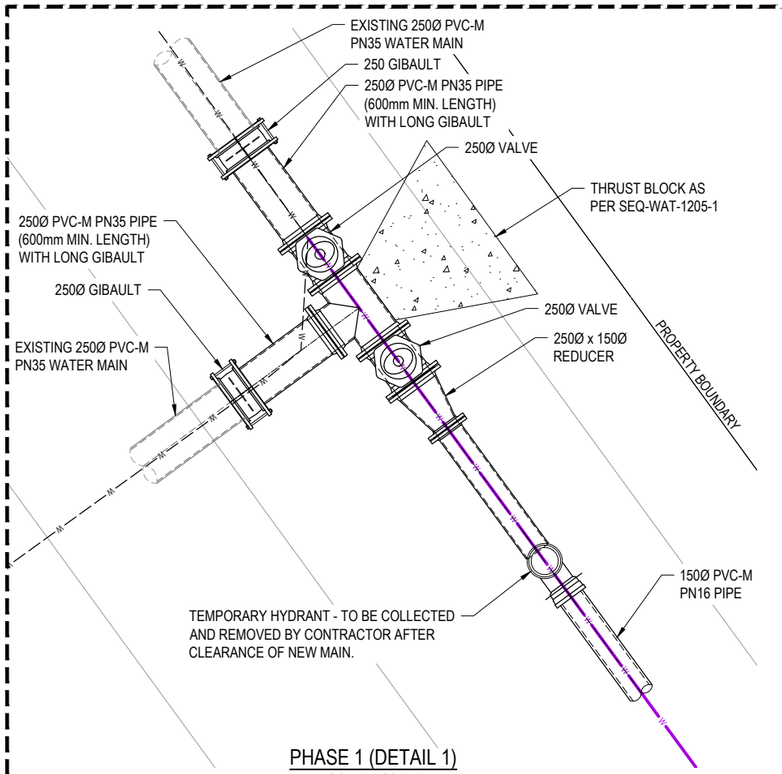
DRAWING TITLE: WATER RETICULATION LAYOUT PLAN

PROJECT No.	DRAWING No.	REVISION
22-0495	306	1

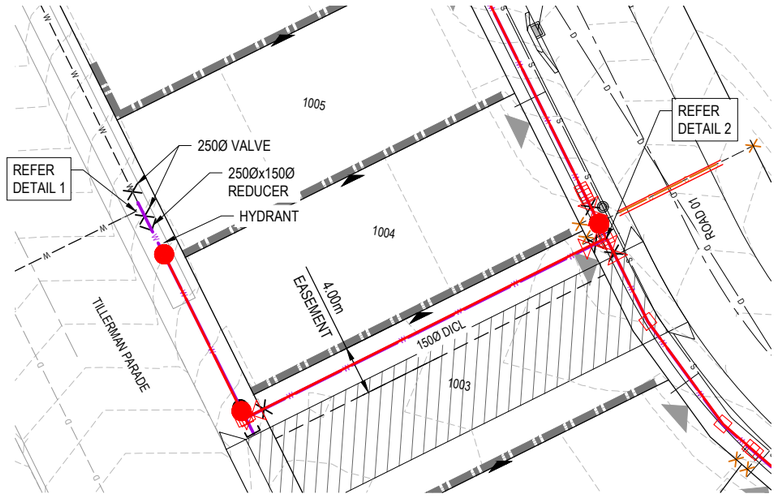
ENGINEER'S CERTIFICATION

I, Daniel Collins, hereby certify that:
As Constructed information shown on this plan is a true and correct record of the sizes, types, materials, classes etc., and it corresponds with the relevant approved Engineering Drawings.

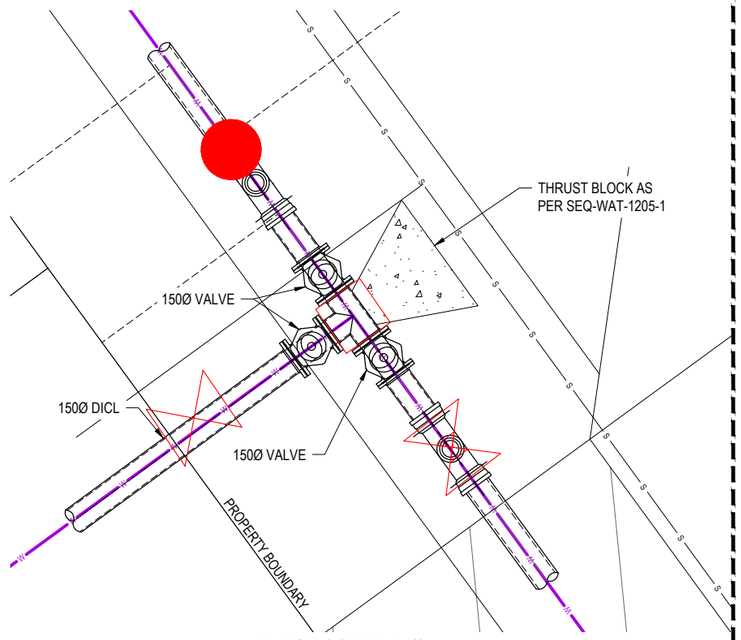
RPEQ (signature) RPEQ No. 18631 Date: 30/09/2025



PHASE 1 (DETAIL 1)
SCALE 1:20 (A1)
1:40 (A3)



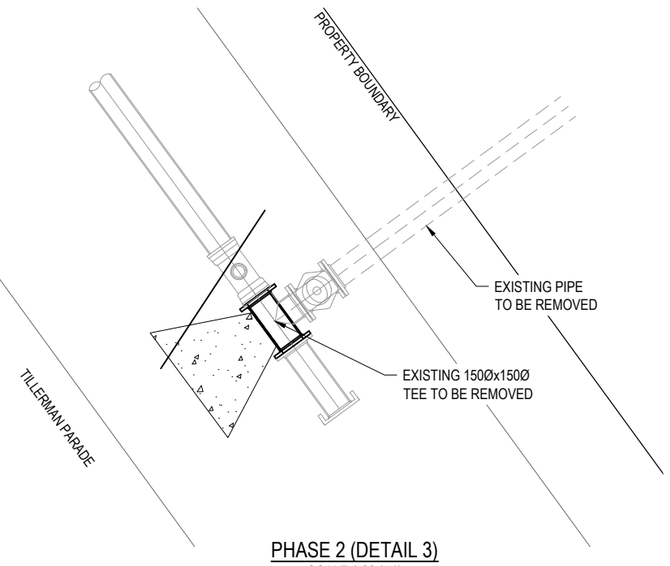
PHASE 1 WATER LAYOUT
SCALE 1:250 (A1)
1:500 (A3)



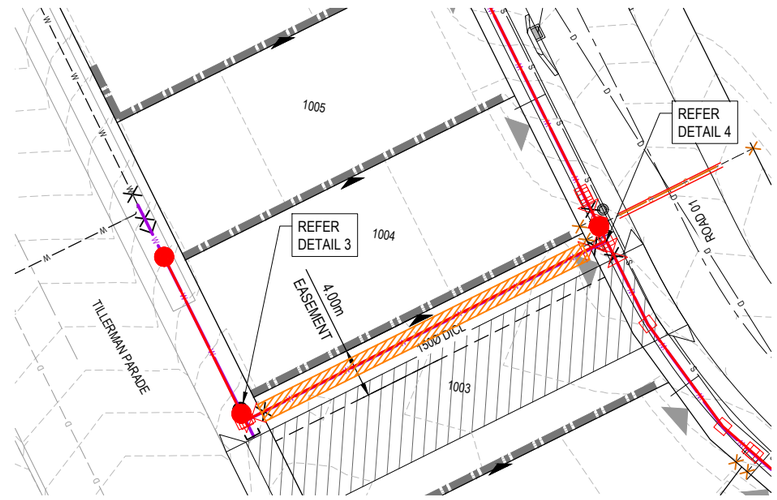
PHASE 1 (DETAIL 2)
SCALE 1:20 (A1)
1:40 (A3)

LEGEND

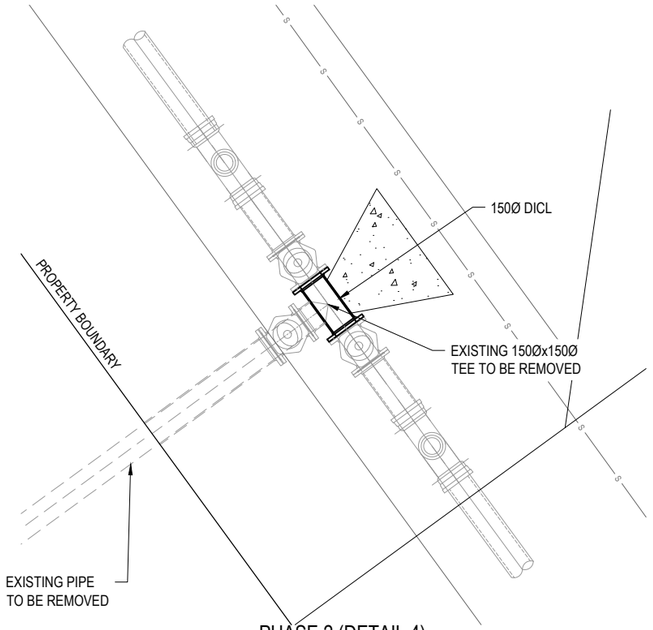
- PROPOSED WATER MAIN
- EXISTING WATER MAIN
- PROPOSED TEMPORARY WATER TO BE REMOVED



PHASE 2 (DETAIL 3)
SCALE 1:20 (A1)
1:40 (A3)



PHASE 2 WATER LAYOUT
SCALE 1:250 (A1)
1:500 (A3)



PHASE 2 (DETAIL 4)
SCALE 1:20 (A1)
1:40 (A3)

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
0	28.02.25	JW	AK	ISSUED FOR CONSTRUCTION
1	30.09.25	JW	HC	AS CONSTRUCTED

DRAWN
DESIGN

STATUS: **AS CONSTRUCTED**
APPROVED DATE 28.02.25
FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD

Colliers

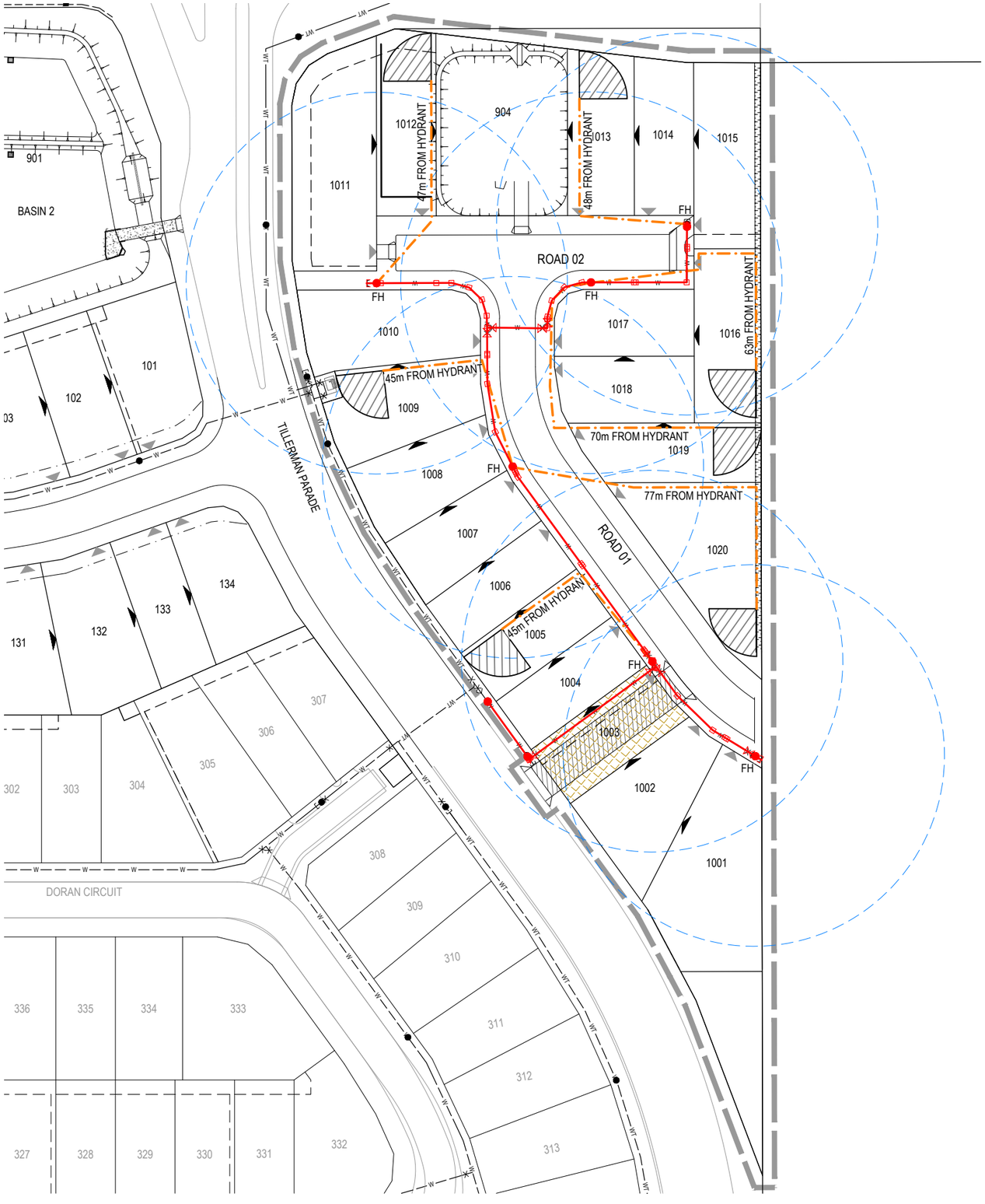
SCALE
1:250 5 0 5 10 A1
1:500 A3
1:20 0.2 0 0.2 0.4 0.6 0.8 1 A1
1:40 A3

CLIENT: HB Land
ASSOCIATED CONSULTANT
SAUNDERS HAVILL GROUP
PH: 1300 123 744

PROJECT NAME: TILLERMAN PARK RIDGE
STAGE 9
133-159 PARK RIDGE ROAD, PARK RIDGE

DRAWING TITLE: **WATER RETICULATION DETAILS PLAN**

PROJECT No.	DRAWING No.	REVISION
22-0495	306A	1



LEGEND

- PROPOSED AREA OF WORKS
- PROPOSED WATER MAIN
- EXISTING WATER MAIN
- PROPOSED HYDRANT REACH (WORST CASE ALLOTMENT)
- FIRE HYDRANT SPACING (RADIUS 40m)
- HOSE SPRAY ARC (10m)
- R40m — FIRE HYDRANT COVER 80m MAX SPACING

NOTE:

ALL FIRE HYDRANT LOCATIONS SHALL MEET CLASS 1 BUILDING COVERAGE REQUIREMENTS OF THE SEQ CODE. FIRE HYDRANT COVERAGE IS AS SHOWN AND DEMONSTRATES THE WORST POSSIBLE LOCATION OF ANY PROPOSED CLASS 1 BUILDING WITHIN 90m OF HYDRANT REACH.

AS CONSTRUCTED LEGEND

- WATER MAIN
- TAPPING BAND/ TEE
- VALVE
- FIRE HYDRANT
- END CAP

ENGINEER'S CERTIFICATION

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As Constructed information shown on this plan is a true and correct record of the sizes, types, materials, classes etc., and it corresponds with the relevant approved Engineering Drawings.

RPEQ (signature) RPEQ No. 18631 Date: 30/09/2025

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
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1	30.09.25	JW	HC	AS CONSTRUCTED

DRAWN

DESIGN

STATUS: **AS CONSTRUCTED**

APPROVED DATE 28.02.25

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: HB Land

ASSOCIATED CONSULTANT
SAUNDERS HAVILL GROUP
PH: 1300 123 744

PROJECT NAME: TILLERMAN PARK RIDGE
STAGE 9
133-159 PARK RIDGE ROAD, PARK RIDGE

DRAWING TITLE: **FIRE HYDRANT REACH LAYOUT PLAN**

PROJECT No.	DRAWING No.	REVISION
22-0495	307	1