TILLERMAN
PARK RIDGE

PROPOSED RESIDENTIAL DEVELOPMENT

STAGE 4 OPERATIONAL WORKS

133-159 PARK RIDGE ROAD, PARK RIDGE

FOR 'HB PARK RIDGE'

DRAWING LIST

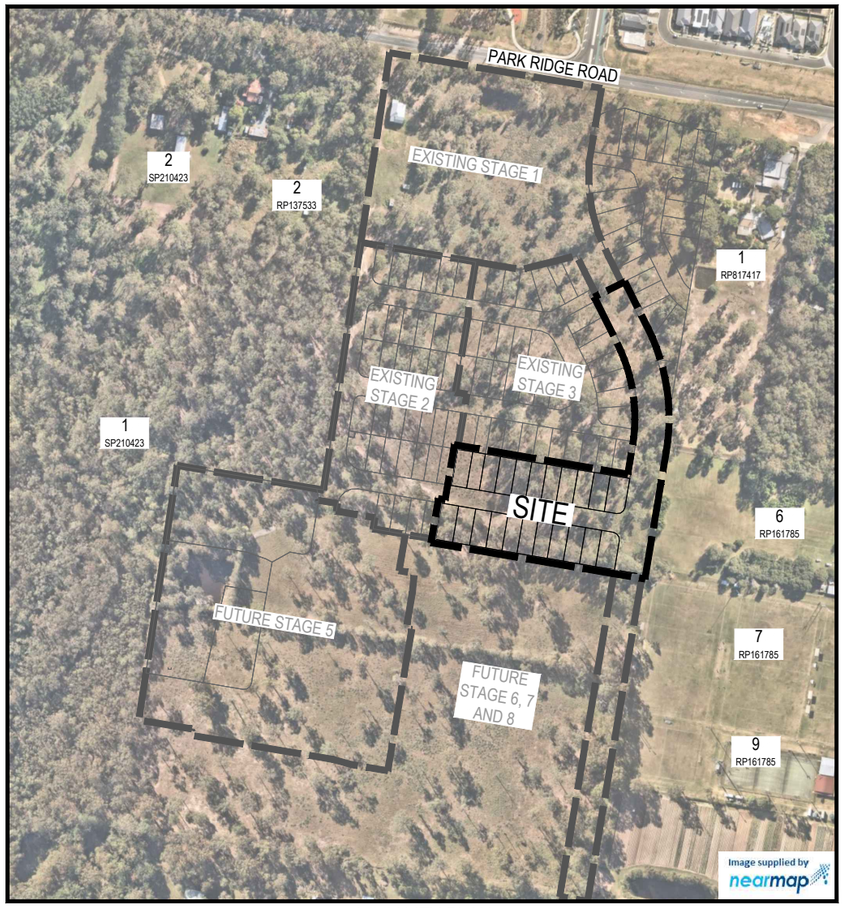
SEWERAGE AND WATER RETICULATION

ENGINEER'S CERTIFICATION

I, Dan 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: 07/05/24



LOCALITY PLAN
SCALE 1:2500 (A1)
SCALE 1:5000 (A3)

ESTATE/STAGE	Park Ridge Road STAGE 4
CLIENT	HB PARK RIDGE
SP APPLICATION No.	COM/36/2021
SP APPROVAL DATE	-01.01.01
No. OF ALLOTMENTS	22 LOTS

ASSET REGISTER - SEWERAGE

	DIAMETER	MATERIAL		LENGTH	
		DESIGN	CONST	DESIGN	CONST
MAINS	DN150	uPVC SN8	-	~~302m~~	266m
	DN160	uPVC SN8	-	-	-

ASSET REGISTER - WATER RETICULATION

	DIAMETER	MATERIAL		LENGTH	
		DESIGN	CONST	DESIGN	CONST
MAINS	DN125	PVC-M PN16	-	-	-
	DN150	PVC-M PN16	-	~~140.0m~~	165m
	DN250	PVC-M PN16	-	~~224.0m~~	112m
SERVICES	DN25	PVC-M PN16	-	~~16.0m~~	
	DN32	PVC-M PN16	-	~~38.0m~~	10m
	DN40	PVC-M PN16	-	~~40.0m~~	54m

	DIAMETER	MATERIAL		NUMBER	
		DESIGN	CONST	DESIGN	CONST
METERS	20Ø	PE100 PN16	-	~~22~~	
	25Ø	PE100 PN16	-	-	-
	32Ø	PE100 PN16	-	-	-

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	03.11.23	CL	AK	ISSUE FOR CONSTRUCTION
0	07.05.24	CL	BP	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
1:2500 50 0 50 100 A1
1:5000 A3

CLIENT: **HB PARK RIDGE**

ASSOCIATED CONSULTANT
SAUNDERS HAVILL GROUP
PH: 1300 123 744

PROJECT NAME
TILLERMAN PARK RIDGE
133-159 PARK RIDGE ROAD
PARK RIDGE (STAGE 4)

DRAWING TITLE: **SEWERAGE AND WATER RETICULATION COVER PLAN**

PROJECT No.	DRAWING No.	REVISION
22-0144	300	0

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. 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.
10. 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.
11. 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.

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 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 DESIGN HAS BEEN UNDERTAKEN TO COMPLY WITH CURRENT LOGAN CITY COUNCIL 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 LOGAN CITY COUNCIL SEWERAGE SYSTEM.
5. ALL LIVE WORK SHALL BE UNDERTAKEN BY THE CONTRACTOR IN ACCORDANCE WITH A VALID WORKS PERMIT, UNDER THE SUPERVISION OF LOGAN CITY COUNCIL, AT THE DEVELOPER'S COST.
6. ALL PIPES AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE "ACCEPTED PRODUCTS AND MATERIALS" LIST, UNLESS APPROVED BY LOGAN CITY COUNCIL.
7. BENCH MARK AND LEVELS TO AHD.
8. 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 LOGAN CITY COUNCIL UNLESS CERTIFICATES ARE PRODUCED CERTIFYING THAT THE REQUIRED COMPACTION HAS BEEN ACHIEVED.
9. SEWERS SHALL BE DISUSED/ABANDONED IN ACCORDANCE WITH PROCEDURE SET OUT IN THE GRAVITY SEWER CODE.
10. CONSTRUCT EMBEDMENT AND TRENCHFILL TO SEQ-SEW-1200-1, 1200-2, 1201-1 TO 1205-1 AND COUNCIL STANDARDS FOR ROADWAYS.
11. CONSTRUCT BULKHEADS AND TRENCH STOPS TO SEQ-1206-1 AND TRENCH DRAINS TO SEQ-SEW-1207-1.
12. EACH ALLOTMENT SHALL BE SERVED BY A DN110 PROPERTY CONNECTION. FOR ALLOTMENTS OTHER THAN SINGLE RESIDENTIAL, A DN160 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. REFER SEQ-SEW-1106-1 TO 1106-6.
13. 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 (TOP SLAB), 1301-27 (LADDERS), 1304-1, 1305-1, 1307-4 (STUB CUT IN), 1313-1 (CONNECTION).
14. CONSTRUCT MH INSERTIONS AND REPAIRS TO 1501-1 (JUNCTIONS) AND 1502-1 (INSET MS).
15. CONSTRUCT MAINTENANCE SHAFTS AND TERMINAL ENTRY POINTS TO SEQ-SEW 1315-1, 1316-1 AND 1502-1 (INSERT MS).
16. INSTALL MH/MS TYPE B COVERS TO SEQ-SEW-1308-2 TO 1308-7.
17. INSTALL MH/MS TYPE D COVERS TO SEQ-SEW-1308-8 TO 1308-11.
18. INSTALL DETECTABLE MARKER TAPE ON ALL SEWER MAINS AND PROPERTY CONNECTIONS.
19. THE UNDERSIDE OF ALL MAINTENANCE HOLE ASPROS MUST BE LINED AS PER STD DRG SEQ-SEW-1301-26.
20. CONCRETE FOR MH CONSTRUCTION SHALL BE SPECIAL CLASS TO WSA PS-358 WITH REQUIREMENTS FOR CALCEREOUS AGGREGATE.

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 LOGAN CITY COUNCIL 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 LOGAN CITY COUNCIL 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 LOGAN CITY COUNCIL.
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-1200-1 TO 1204-1 AND COUNCIL STANDARDS FOR ROADWAY CROSSINGS.
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 UNRESTRAINED VALVES, BENDS, TEES, TAPERS, DEAD ENDS TO SEQ-WAT-1205-1, 1206-1 AND 1207-1 AND WHERE OTHER PIPES CONNECT TO DN 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 LOGAN CITY COUNCIL.
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. LOGAN CITY COUNCIL 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 FLANGES. 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. CONSTRUCT PROPERTY SERVICES TO SEQ-WAT-1107-1 AND 1107-3.
21. PROVIDE 2xDN25 WATER SERVICES FOR ROAD CROSSINGS SERVICING TWO DWELLINGS. PROVIDE DN32 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 2xDN25.
22. WATER SERVICE UNDER ROADS MUST BE PLACED WITHIN 100mm DIA. CONDUITS, REFER SEW-WAT-1107-1.
23. A WATER METER SUPPLIED AT THE DEVELOPER'S COST, IS TO BE INSTALLED AT THE SERVICE POINT OF EACH LOT IN ACCORDANCE WITH LOGAN CITY COUNCIL STANDARD DRAWING.
24. WATER METER AND FIRE HYDRANTS MUST BE LOCATED MINIMUM 1.1m CLEAR OF ENERGEX PILLARS.

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

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

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.

ENGINEER'S CERTIFICATION

I, Dan 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: 07/05/24

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	03.11.23	CL	AK	ISSUE FOR CONSTRUCTION
0	07.05.24	CL	BP	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: 1:2500 / 1:5000 — 50 0 50 100 — A1 / A3

CLIENT: HB PARK RIDGE

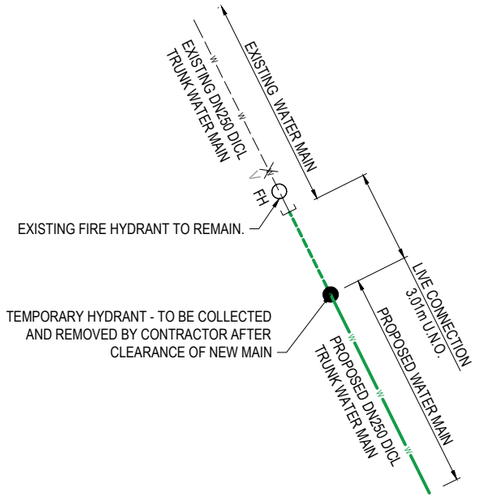
ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: TILLERMAN PARK RIDGE

133-159 PARK RIDGE ROAD PARK RIDGE (STAGE 4)

DRAWING TITLE: SEWERAGE AND WATER RETICULATION GENERAL NOTES

PROJECT No.	DRAWING No.	REVISION
22-0144	301	0



LIVE WATER CONNECTION 1 DETAIL
NOT TO SCALE

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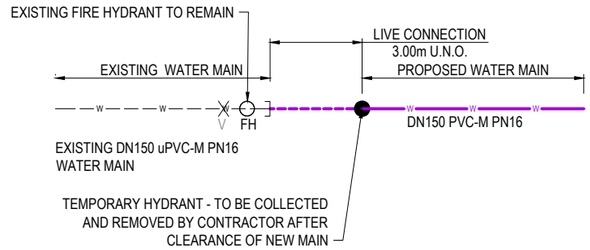
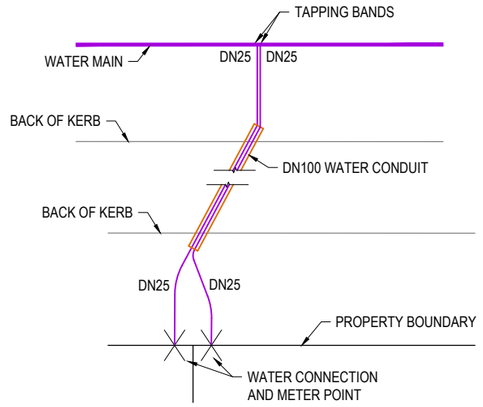


LIVE WATER CONNECTION 2 DETAIL
NOT TO SCALE



TYPICAL ROAD CROSSING FOR WATER MAIN CONNECTIONS
N.T.S

WATER RETICULATION LIVE CONNECTIONS

CONNECTION 1	CONNECTION 2
STREET TILLERMAN NEXT TO DRIVEWAY 01 AND LOT 308	STREET DORAN CIR NEAR DRIVEWAY 02 AND LOT 314
LOCATION LOT 401 AND LOT 315	LOCATION LOT 232 AND LOT 411
LENGTH 3.00m TYPE OF MAIN DN250 PVC-M PN16	LENGTH 3.00m TYPE OF MAIN DN150 PVC-M PN16
DATE COMMENCED ——— DATE COMPLETED ———	DATE COMMENCED ——— DATE COMPLETED ———
SIGNATURE	SIGNATURE

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 URBAN UTILITIES, AT THE DEVELOPERS EXPENSE.
2. LIVE WORKS CANNOT COMMENCE UNTIL ALL RELEVANT TEST CERTIFICATES HAVE BEEN PROVIDED AND ACCEPTED BY URBAN UTILITIES.

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 URBAN UTILITIES, AT THE DEVELOPERS EXPENSE.
2. PRE-CHLORINATED 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)	0.50m FROM EXISTING STUB, CONSTRUCTOR,TO LAY NEW SEWERS. AFTER CLEANSING, TESTING AND INSPECTION, NOTIFY URBAN UTILITIES.	DN150	13/3	MS	B	303	~~63.832~~ 63.48	~~63.832~~	~~62.191~~ 61.88	~~1.642~~ 1.60	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.	DN150	2/12	MS	B	303	~~62.776~~ 63.32	~~62.776~~	~~61.035~~ 61.72	~~1.741~~ 1.60	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.										

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	03.11.23	CL	AK	ISSUE FOR CONSTRUCTION
0	07.05.24	CL	BP	AS CONSTRUCTED

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

CLIENT: HB PARK RIDGE

ASSOCIATED CONSULTANT
SAUNDERS HAVILL GROUP
PH: 1300 123 744

PROJECT NAME: TILLERMAN PARK RIDGE
133-159 PARK RIDGE ROAD
PARK RIDGE (STAGE 4)

DRAWING TITLE: SEWERAGE AND WATER RETICULATION LIVE WORKS DETAILS

PROJECT No.	DRAWING No.	REVISION
22-0144	302	0

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
- x PROPOSED WATER SERVICE POINT
- 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

- SEWERAGE MAIN
- SEWERAGE 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.

ENGINEER'S CERTIFICATION

I, Dan Collins, hereby certify that:

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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.
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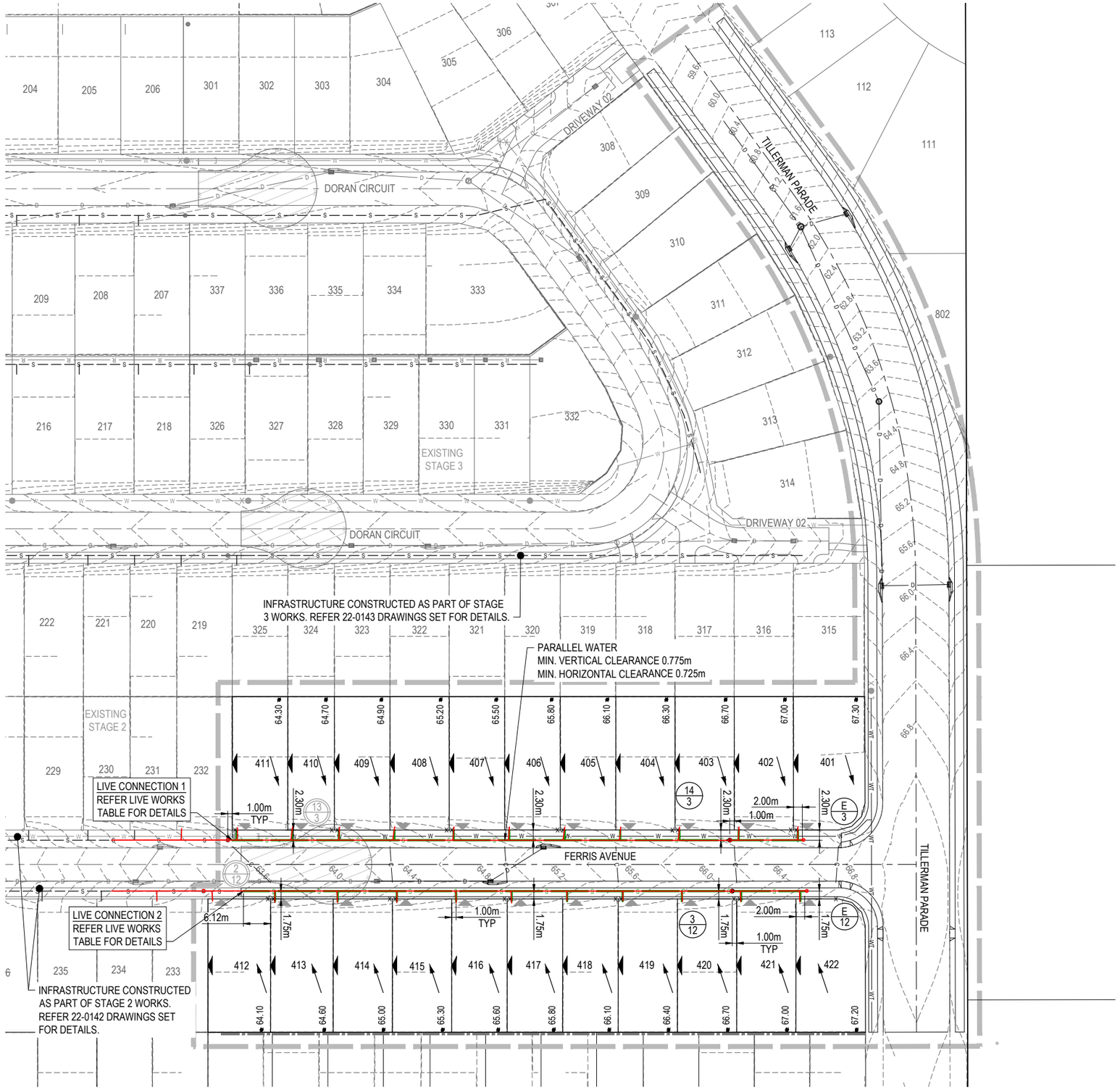
RPEQ (signature) RPEQ No. 18631 Date: 07/05/24

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
A	03.11.23	CL	AK	ISSUE FOR CONSTRUCTION
0	07.05.24	CL	BP	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: **HB PARK RIDGE**

ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP
PH: 1300 123 744

PROJECT NAME: TILLERMAN PARK RIDGE

133-159 PARK RIDGE ROAD
PARK RIDGE (STAGE 4)

DRAWING TITLE: **SEWERAGE RETICULATION LAYOUT PLAN**

PROJECT No.	DRAWING No.	REVISION
22-0144	303	0

LINE 3

STRUC/ BEND/ END NAME	13/3									14/3		E/3
STRUCTURE TYPE	MS									MS		END
STRUCTURE LID TYPE	B									B		
STRUCTURE DROP TYPE	MS-V									MS-V		
JUNCTION LINE												
DEPTH TO LOT CONTROL LEVEL	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.622	0.550	0.562	0.629	
DEPTH TO HOUSE CONNECTION	1.31 ~~1.200~~	1.47 ~~1.200~~	1.32 ~~1.200~~	1.36 ~~1.200~~	1.32 ~~1.200~~	1.28 ~~1.200~~	1.30 ~~1.200~~	1.33 ~~1.200~~	1.31 ~~1.200~~	1.28 ~~1.200~~	1.35 ~~1.200~~	
HC INVERT LEVEL	63.68 ~~62.360~~	64.12 ~~62.680~~	64.25 ~~62.932~~	64.60 ~~63.232~~	64.89 ~~63.552~~	65.14 ~~63.852~~	65.48 ~~64.152~~	65.79 ~~64.452~~	66.07 ~~64.772~~	66.40 ~~65.092~~	66.78 ~~65.412~~	
HC TYPE	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2	
HC LOT No	411	410	409	408	407	406	405	404	403	402	401	
CH. FROM D/S STRUC/ BEND	2	14.5	25	37.5	50.833	63.333	75.833	88.333	101.666	2	15.333	

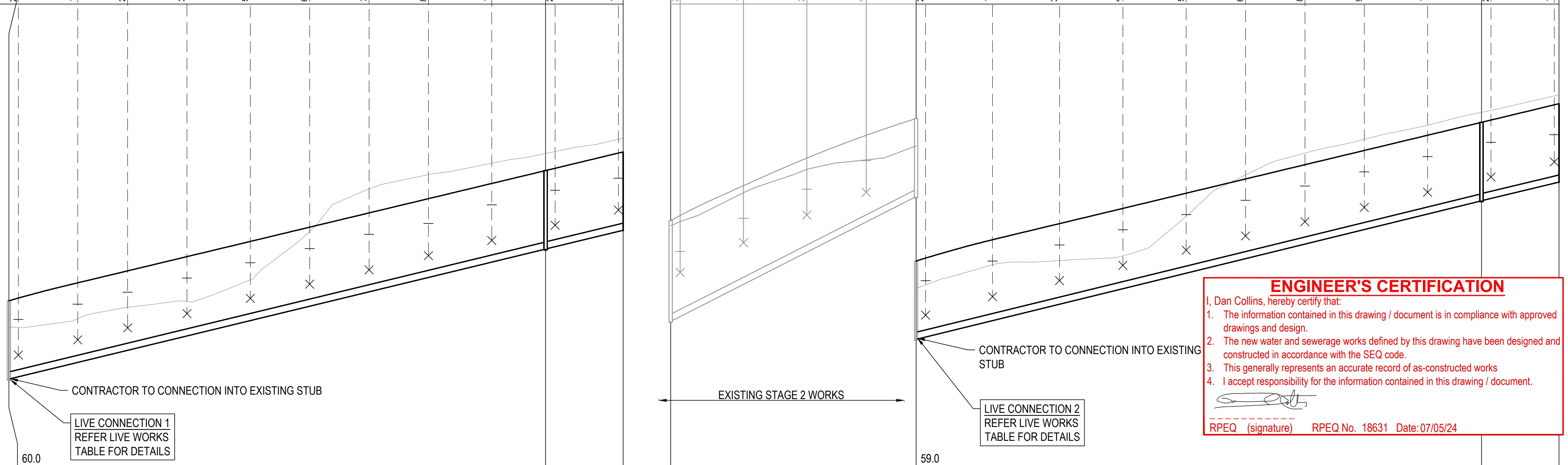
	13/3		14/3 (U/S)	14/3 (D/S)		E/3
DATUM R.L.	60.0					
LAND USE						
DIAMETER		DN150 uPVE SN8			DN150 uPVE SN8	
GRADE		41.89 ~~1 IN 41.54~~			41.35 ~~1 IN 42.56~~	
EMBEDMENT TYPE						
DEPTH TO INVERT	~~1.640~~ 1.60		1.67 ~~1.662~~	~~1.642~~ 1.64		1.62 ~~1.650~~
JUNCTION INVERT LEVEL						
SEWER INVERT LEVEL	~~61.862~~ 61.88		64.58 ~~64.582~~	~~64.602~~ 64.61		65.01 ~~64.986~~
DESIGN SURFACE LEVEL	~~63.502~~ 63.48			~~66.244~~ 66.25		~~66.636~~ 66.63
SETOUT	505233.912 935635.405			505345.318 935616.496		505361.420 935613.762
RUNNING CHAINAGE	478.779	113.11 ~~112.999~~		591.778	16.54 ~~16.333~~	608.111

LINE 12

STRUC/ BEND/ END NAME	1/12				2/12									3/12	E/12
STRUCTURE TYPE	MS				MS									MS	END
STRUCTURE LID TYPE	B				B									B	
STRUCTURE DROP TYPE	MS-V				MS-V									MS-V	
JUNCTION LINE															
DEPTH TO LOT CONTROL LEVEL	0.860	0.787	0.754	0.634	0.574	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.568	0.727
DEPTH TO HOUSE CONNECTION	1.200	1.200	1.200	1.24 ~~1.200~~	1.21 ~~1.200~~	1.44 ~~1.200~~	1.36 ~~1.200~~	1.30 ~~1.200~~	1.30 ~~1.200~~	1.32 ~~1.200~~	1.28 ~~1.200~~	1.28 ~~1.200~~	1.28 ~~1.200~~	1.29 ~~1.200~~	1.29 ~~1.200~~
HC INVERT LEVEL	60.099	60.726	61.307	63.06 ~~61.787~~	63.45 ~~62.204~~	64.04 ~~62.599~~	64.30 ~~62.927~~	64.58 ~~63.247~~	64.87 ~~63.567~~	65.18 ~~63.867~~	65.42 ~~64.167~~	65.72 ~~64.467~~	66.08 ~~64.787~~	66.43 ~~65.107~~	66.75 ~~65.427~~
HC TYPE	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2
HC LOT No	236	235	234	233	412	413	414	415	416	417	418	419	420	421	422
CH. FROM D/S STRUC/ BEND	2	15.333	28.666	41.166	2	16.1	30.2	43.533	56.866	69.366	81.866	94.366	107.699	2	15.333

	1/12		2/12 (U/S)	2/12 (D/S)		3/12 (U/S)	3/12 (D/S)		E/12
DATUM R.L.				59.0					
LAND USE									
DIAMETER		DN150 uPVE SN8			DN150 uPVE SN8			DN150 uPVE SN8	
GRADE		1 IN 19.94			41.87 ~~1 IN 41.08~~			41.29 ~~1 IN 42.56~~	
EMBEDMENT TYPE									
DEPTH TO INVERT	2.135 2.105		~~1.661~~	~~1.639~~ 1.60		1.74 ~~1.662~~	~~1.642~~ 1.69		1.59 ~~1.650~~
JUNCTION INVERT LEVEL									
SEWER INVERT LEVEL	59.057 59.087		~~61.679~~	~~61.700~~ 61.72		64.56 ~~64.598~~	~~64.616~~ 64.61		65.02 ~~65.001~~
DESIGN SURFACE LEVEL	61.191			~~63.339~~ 63.32			~~66.259~~ 66.30		~~66.651~~ 66.61
SETOUT	505175.654 935633.680			505226.591 935625.034			505343.945 935605.115		505360.048 935602.382
RUNNING CHAINAGE	11.657	51.666		63.323	118.91 ~~119.032~~		182.355	16.93 ~~16.333~~	198.688

LINE 12



STRUCTURE TYPES
C2 = CAST-IN-SITU 1.500Ø / 1.200Ø
P2 = PRE-CAST CONCRETE 1.050Ø
MS = uPVC TYPE 'J1' MAINTENANCE SHAFT
MH DROP TYPES:
AS PER SEQ STD DRG SEQ-SEW-1303-1
MS DROP TYPES:
MS-V = 30mm DROP THROUGH BULB
MS-Z = >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:
PIPE EMBEDMENT & TRENCHFILL SHALL BE IN ACCORDANCE WITH SEQ-SEW-1200-2, 1201-1 TO 1201-5. TYPE 3 SUPPORT IS PROPOSED UNTIL FINAL GEOTECHNICAL INVESTIGATIONS ARE COMPLETED PRIOR TO CONSTRUCTION.

* 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 PEAK URBAN STD DRG S-100.

ENGINEER'S CERTIFICATION
I, Dan 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: 07/05/24

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	03.11.23	CL	AK	ISSUE FOR CONSTRUCTION
0	07.05.24	CL	BP	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 A1 / 1:2000 A3 — 10 0 10 20 30 40 50 HORIZONTAL
1:100 A1 / 1:200 A3 — 2 1 0 2 4 VERTICAL

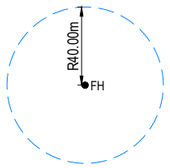
CLIENT: **HB PARK RIDGE**
ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744
PROJECT NAME: TILLERMAN PARK RIDGE — 133-159 PARK RIDGE ROAD PARK RIDGE (STAGE 4)
DRAWING TITLE: **SEWERAGE LONGITUDINAL SECTIONS**
PROJECT No.: 22-0144 DRAWING No.: 304 REVISION: 0

LEGEND

- PROPOSED AREA OF WORKS
- PROPOSED WATER MAIN
- EXISTING WATER MAIN
- PROPOSED HYDRANT REACH (WORST CASE ALLOTMENT)
- FIRE HYDRANT SPACING (RADIUS 40m)

NOTE:

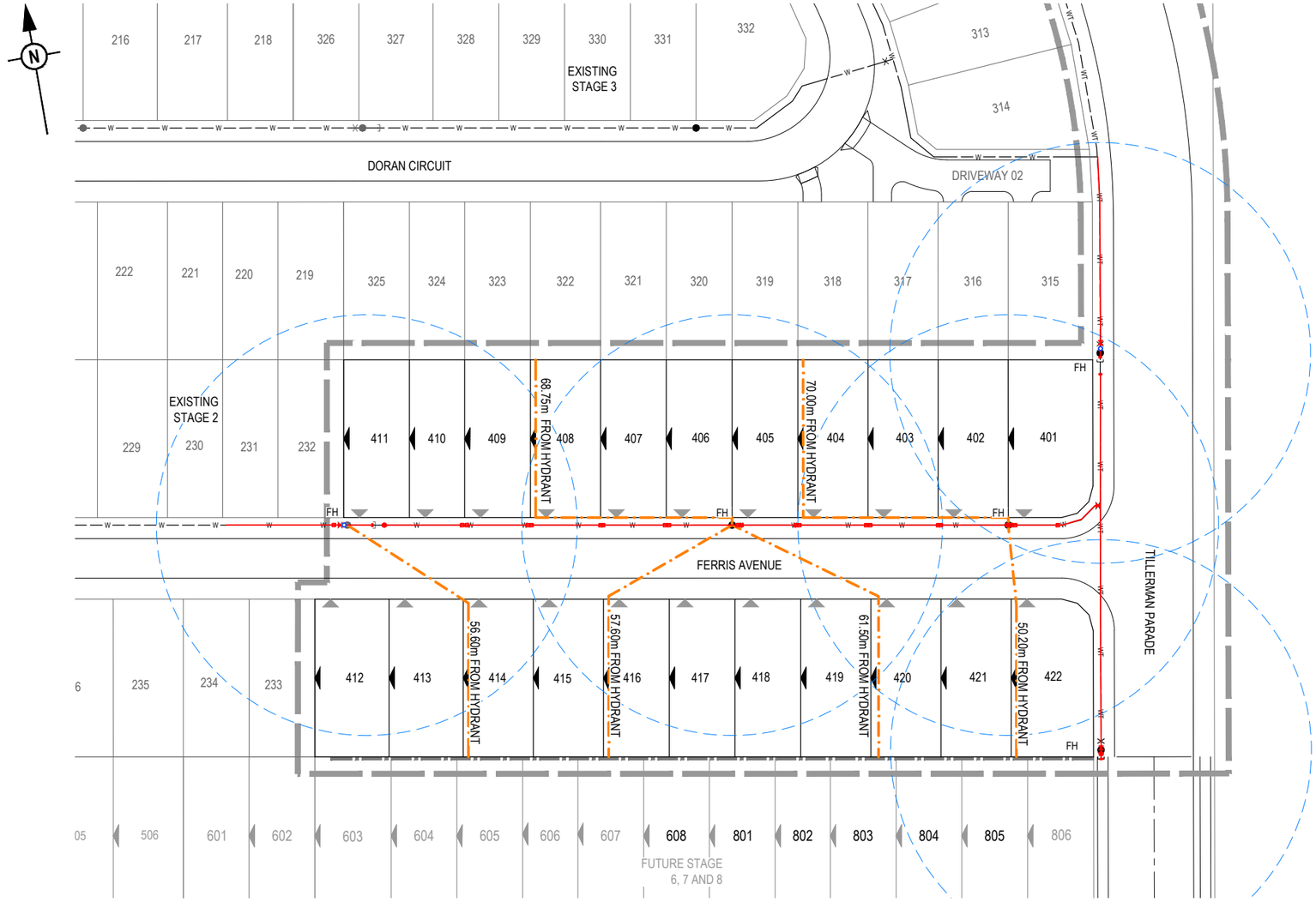
ALL FIRE HYDRANT LOCATIONS SHALL MEET CLASS 1 BUILDING COVERAGE REQUIREMENTS OF THE SEQ CODE. FIRE HYDRANT COVERAGE IS AS SHOWN AND DEMONSTRATES THE WORST POSSIBLE LOCATION OF ANY PROPOSED CLASS 1 BUILDING WITHIN 90m OF HYDRANT REACH.



FIRE HYDRANT COVERAGE
NOT TO SCALE

AS CONSTRUCTED LEGEND

- WATER PIPE
- TAPPING BAND
- VALVE
- FIRE HYDRANT
- END CAP



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Colliers

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

CLIENT: **HB PARK RIDGE**

ASSOCIATED CONSULTANT: SAUNDERS HAVILL GROUP PH: 1300 123 744

PROJECT NAME: TILLERMAN PARK RIDGE

133-159 PARK RIDGE ROAD PARK RIDGE (STAGE 4)

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

PROJECT No.	DRAWING No.	REVISION
22-0144	306	0