

ARCO & AODELI
LOT 334 ON SP 193431
84 CHRISTENSEN ROAD SOUTH
STAPYLTON, QUEENSLAND 4207

DRAWING INDEX

DRAWING No.	DESCRIPTION
8046-C01	LOCALITY PLAN, DRAWING INDEX AND GENERAL NOTES
8046-SW01	STORMWATER LAYOUT PLAN, NOTES AND LONGITUDINAL SECTION
8046-S01	SEWERAGE RETICULATION LAYOUT PLAN AND NOTES
8046-S02	SEWERAGE RETICULATION LONGITUDINAL SECTION
8046-W01	WATER RETICULATION LAYOUT PLAN AND DETAILS
GCCC-02-602	ROAD CROSSING TRENCH RESTORATION FLEXIBLE PAVEMENTS

GENERAL NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.

2. TOPSOIL IS TO BE STRIPPED AND REPLACED ON ALL DISTURBED EARTHWORKS AREAS WITHIN FOOTPATH AREA.

3. ALL TEMPORARY AND PERMANENT SIGNAGE AND LINEMARKING TO BE IN ACCORDANCE WITH MAIN ROADS STANDARDS (MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES).

4. ALL DIMENSIONS ARE TO BE CHECKED ON-SITE BEFORE WORK COMMENCES.

5. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE DRAWING.

6. DURING CONSTRUCTION BARRIERS, LIGHTS & SIGNS SHALL BE MAINTAINED TO ENSURE SAFE PASSAGE OF TRAFFIC AND PEDESTRIANS IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY.

7. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH S.A.A. CODES & BY-LAWS AND ORDINANCES OF THE RELEVANT LOCAL AUTHORITY AND WORKPLACE HEALTH AND SAFETY REQUIREMENTS.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL RELEVANT AUTHORITIES AND PAYING ALL FEES NECESSARY BEFORE COMMENCING WORK, FOR LOCATING ALL EXISTING SERVICES AND FOR REPAIR OF ANY SERVICES DAMAGED AS A RESULT OF THE WORKS.

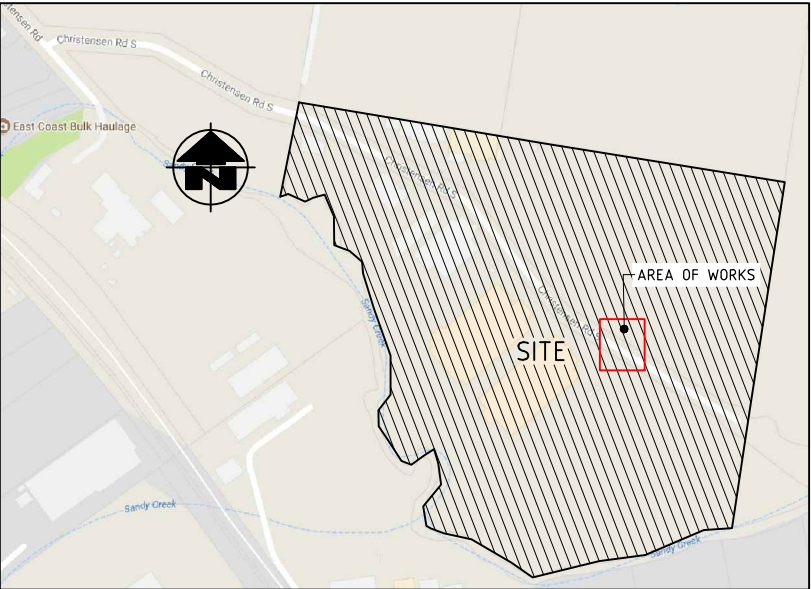
9. THE CLIENTS SURVEYOR SHALL PEG PIT LOCATION AND STAKE R.P. BOUNDARIES PRIOR TO CONSTRUCTION.
10. CONTRACTOR TO VERIFY ALL INVERT LEVELS, SURFACE LEVELS, COVER OVER DRAINAGE LINES, AND MINIMUM FALLS ARE CORRECT & OBTAINABLE PRIOR TO COMMENCEMENT OF WORK.

11. THE CONTRACTOR'S ATTENTION IS DRAWN TO THE REQUIREMENTS OF THE WORKPLACE HEALTH AND SAFETY ACT 1995. ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH THIS ACT AND IN PARTICULAR THE CONTRACTOR IS TO ENSURE THE REQUIREMENTS OF THIS SPECIFICATION WITH REGARD TO 'NOTIFICATION IN RELATION TO A NOTIFIABLE PROJECT', ARE FORFILLED.

12. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH CURRENT GOULD COAST CITY COUNCIL STANDARD DRAWINGS AND SPECIFICATIONS.

13. CONTRACTOR SHALL VERIFY BENCH MARK LEVELS AND ADVISE THE SUPERINTENDENT OF ANY DISCREPANCIES PRIOR TO COMMENCING CONSTRUCTION.

14. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORK. ALL EXISTING SERVICES AND STRUCTURES ARE TO BE MAINTAINED IN GOOD ORDER FOR THE DURATION OF THE CONTRACT. ANY COST ASSOCIATED WITH REPAIRING DAMAGE TO EXISTING SERVICES SHALL BE PAID FOR BY THE CONTRACTOR.



LOCALITY PLAN
SCALE 1:5000

PLANS AND DOCUMENTS referred to in the
DEVELOPMENT APPROVAL

Application No: OPW201801421

Dated: 10 July 2018

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

SCALE 1:5000 (A1)
0 100 200 300m
(SCALE BEFORE REDUCTION)

DO NOT SCALE. CONFIRM ALL DIMENSIONS ON SITE.		
ISSUE	AMENDMENT	DATE
A	ISSUED FOR COMMENT	15.12.17
B	ISSUED FOR COUNCIL APPROVAL	18.12.17
C	RE ISSUED FOR COUNCIL APPROVAL	13.02.18
D	RE ISSUED FOR COUNCIL APPROVAL	23.03.18
0	ISSUED FOR CONSTRUCTION	18.04.18
1	RE ISSUED FOR COUNCIL APPROVAL	12.06.18

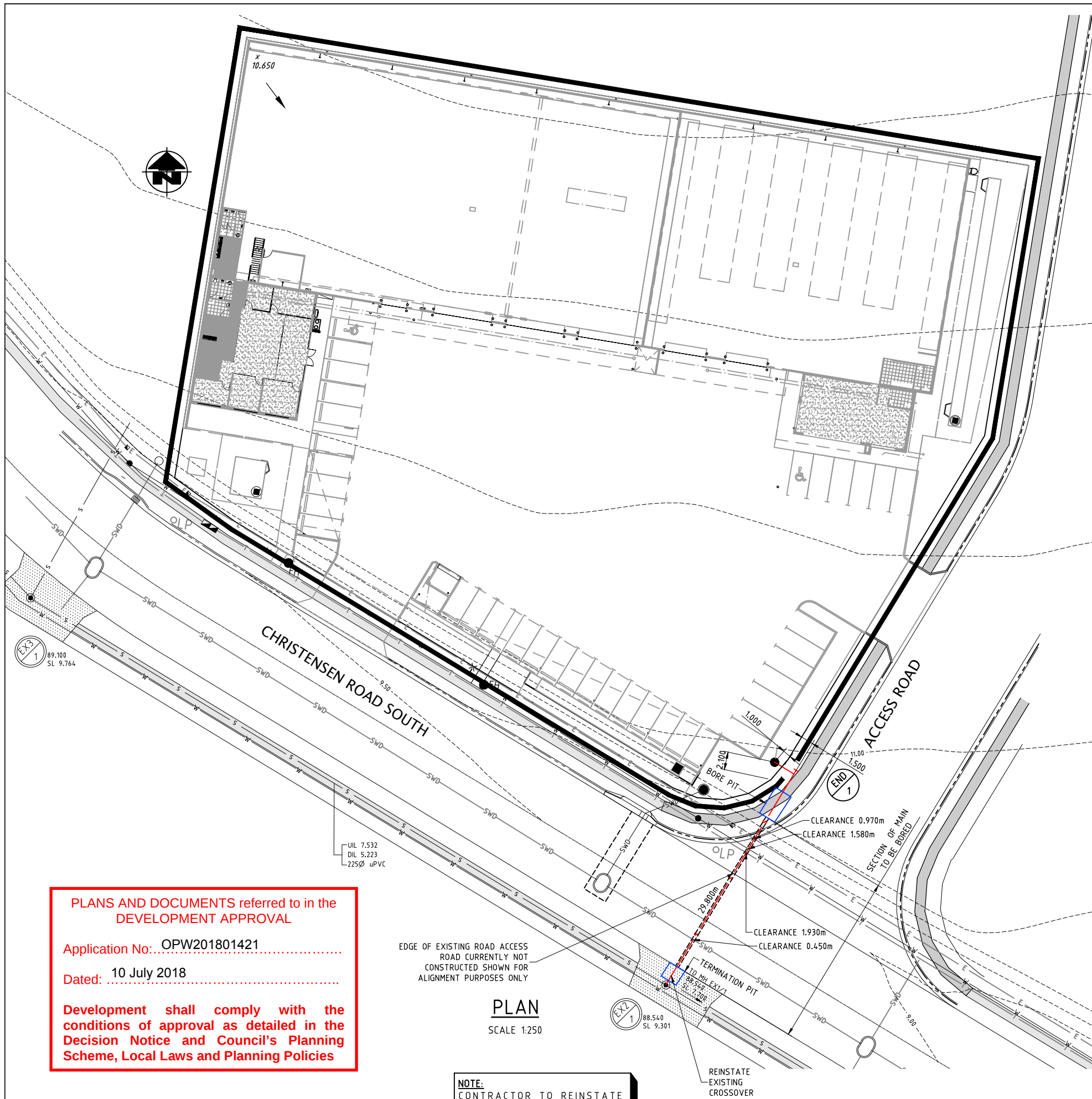
REAL PROPERTY DESCRIPTION
LOT 334 ON SP 193431

PROJECT
84 CHRISTENSEN ROAD
SOUTH, STAPYLTON

CLIENT
SPACEFRAME BUILDINGS
PTY LTD

TITLE
LOCALITY PLAN, DRAWING
INDEX AND GENERAL NOTES

 HCE Engineers Hydraulic • CIVIL • Environmental		
P.O. Box 7214, Phone: (07) 3829 1399 Redland Bay, mail@hce-engineers.com.au QLD, 4165 6 Marine Street, Redland Bay		
Designed MN	Drawn MN	Date 14.12.17
Approved 	Scale AS SHOWN	
Drawing No. 8046-C01	Rev. 1	



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW201801421

Dated: 10 July 2018

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

EDGE OF EXISTING ROAD ACCESS ROAD CURRENTLY NOT CONSTRUCTED SHOWN FOR ALIGNMENT PURPOSES ONLY

PLAN
SCALE 1:250

NOTE:
CONTRACTOR TO REINSTATE EXISTING CROSSOVER UPON COMPLETION OF SEWER WORKS IF DAMAGED BY CIVIL WORKS

THIS DESIGN HAS BEEN PREPARED BASED ON SERVICE AUTHORITY AS CONSTRUCTED INFORMATION. NO POT HOLING HAS BEEN UNDERTAKEN TO VERIFY EXISTING SERVICE LOCATIONS AND DEPTHS. IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERTAKE POT HOLING TO VERIFY THE DESIGN.

SEWER NOTES

- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT SEQ WATER SUPPLY AND SEWERAGE DESIGN AND CONSTRUCTION CODE (SEQ WS&S D&C) STANDARDS AND ADDITIONAL GCCC REQUIREMENTS.
 - UNLESS SPECIFIED OTHERWISE ALL MATERIALS AND WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
 - 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 COUNCIL'S SEWERAGE SYSTEM.
 - ALL WORK ASSOCIATED WITH LIVE SEWERS OR MAINTENANCE HOLES SHALL BE CARRIED OUT BY THE DEVELOPER'S APPROVED CONTRACTOR UNDER THE SUPERVISION OF GOLD COAST CITY COUNCIL AT THE DEVELOPER'S EXPENSE.
 - ALL PIPES AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE "ACCEPTED PRODUCTS AND MATERIALS LIST".
 - EACH ALLOTMENT SHALL BE SERVED BY A 100Ø PROPERTY CONNECTION. FOR ALLOTMENTS OTHER THAN SINGLE RESIDENTIAL, A 150Ø PROPERTY CONNECTION SHALL BE PROVIDED. A MAXIMUM OF 2 RESIDENTIAL PREMISES IS ALLOWED ON A 100Ø. PROPERTY CONNECTION SEWER DETAILS SHALL COMPLY WITH THE DETAILS GIVEN IN THE SEQ WS&S D&C STANDARD DRAWINGS - SEWERAGE SEQ-SEW-1106-1 TO 1106-7.
 - PROPERTY CONNECTION BRANCHES SHALL EXTEND INTO THE PROPERTY A MINIMUM OF 500mm AND A MAXIMUM OF 1000mm.
 - PROPERTY CONNECTIONS SHALL BE LOCATED A MINIMUM OF 500mm FROM THE PROPERTY BOUNDARY WHERE POSSIBLE.
 - 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 AS 1289 (MODIFIED COMPACTION). TESTING SHALL BE CARRIED OUT AFTER EACH ALTERNATIVE LAYER. IN ALL SUCH CASES APPROVAL OF CONSTRUCTED SEWERS WILL NOT BE ISSUED BY THE COUNCIL UNLESS CERTIFICATES ARE PRODUCED CERTIFYING THAT THE REQUIRED COMPACTION HAS BEEN ACHIEVED. PVC SEWERS SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS FOR NON-PRESSURE PIPELINES SPECIFIED IN WSA-02.
 - WHERE SEWERS HAVE A GRADE OF 1 IN 20 OR STEEPER, BULKHEADS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CL.8.10, 17.5 AND 17.6 OF THE SEQ WS&S D&C CODE AMENDMENTS TO WSA-02.
 - THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF EXISTING SERVICES WITH RELEVANT AUTHORITIES BEFORE COMMENCING WORKS.
 - SEWERS SHALL BE DISUSED/ABANDONED IN ACCORDANCE WITH PROCEDURES SET OUT IN CL.4.2.6 OF THE SEQ WS&S D&C CODE AMENDMENTS TO WSA 02.
 - PROPERTY CONNECTION MARKERS ARE TO BE INSTALLED IN ACCORDANCE WITH STANDARD DRAWING No. SEQ-SEW-1106-2 ON ALL PROPERTY CONNECTIONS, EXCEPT WHERE THE PROPERTY CONNECTION IS PROVIDED FROM A MAINTENANCE HOLE OR PRIVATE DRAINAGE IS CONNECTED TO THE PROPERTY CONNECTION AS PART OF THE WORKS.
 - ALL PVC PIPES AND CONNECTIONS TO BE INSTALLED BY AN ACCREDITED CONTRACTOR.
 - ALL LEVELS TO A.H.D.
 - EMBEDMENT AND TRENCHING IN ACCORDANCE WITH (SEQ WS&S D&C) STD DRG SEQ-SEW-1200-2.
- a. BEDDING - SPECIAL BEDDING SHALL BE SPECIFIED IF THE TRENCH FLOOR HAS:
- IRREGULAR OUTCROPS OF ROCK
 - AHBP OF <50kPa (SEE SEQ-WAT-1200-01) OR,
 - UNCONTROLLED GROUND WATER HAS DISTURBED THE FLOOR OF THE TRENCH
- c. EMBEDMENT, TRENCH FILL AND COMPACTION TO MEET THE REQUIREMENTS OF WSA-02 PART 3 AND THE RELEVANT SEQ-SP
- d. SIDES OF EXCAVATION TO BE KEPT VERTICAL TO AT LEAST 150mm ABOVE THE PIPE
- e. DESIGNER TO CHECK ON RELEVANT AUTHORITIES' REQUIREMENTS ADDITIONAL INFORMATION PROVIDED IN SEQ-SEW-1200 SERIES.

NAME OF ESTATE	84 CHRISTENSEN ROAD SOUTH
	STAPYLTON
SUBDIVIDER	SPACEFRAME BUILDINGS PTY LTD
APPLICATION NO.	
SP DELEGATE	GOLD COAST CITY COUNCIL
APPROVAL DATE	
DRAWING/PLAN NO.	
No. OF ALLOTS.	1
AREA IN ha.	0.6293
LENGTH OF SEWER	100Ø 150Ø 32.700 225Ø
REFERENCE	

SCALE 1:250 (A1)
(SCALE BEFORE REDUCTION)

SCALE 1:2500 (A1)
(SCALE BEFORE REDUCTION)

DO NOT SCALE.
CONFIRM ALL DIMENSIONS ON SITE.

ISSUE	AMENDMENT	DATE
A	ISSUED FOR COMMENT	13.12.17
B	ISSUED FOR COUNCIL APPROVAL	18.12.17
C	RE ISSUED FOR COUNCIL APPROVAL	13.02.18
D	RE ISSUED FOR COUNCIL APPROVAL	23.03.18
0	ISSUED FOR CONSTRUCTION	18.04.18
1	RE ISSUED FOR COUNCIL APPROVAL	12.06.18

LEGEND

- EXISTING SEWERAGE RETICULATION
- PROPOSED SEWERAGE RETICULATION
- PROPOSED PROPERTY CONNECTION
- EXISTING SURFACE CONTOURS
- PROPOSED SEWERAGE STRUCTURE
- EXISTING SEWERAGE STRUCTURE
- PROPOSED STORMWATER DRAINAGE
- EXISTING STORMWATER DRAINAGE
- EXISTING TELECOMMUNICATIONS
- EXISTING WATER RETICULATION
- EXISTING UNDERGROUND ELECTRICAL
- ALLOTMENT CONTROL POINT (NOT FOR CONSTRUCTION PURPOSES)
- LOTS TO BE SEWERED
- EXISTING FOOTPATH
- FUTURE FOOTPATH
- EXISTING CROSSOVER

REAL PROPERTY DESCRIPTION

LOT 334 ON SP 193431

PROJECT
84 CHRISTENSEN ROAD
SOUTH, STAPYLTON

CLIENT
SPACEFRAME BUILDINGS
PTY LTD

TITLE
SEWERAGE RETICULATION
LAYOUT PLAN AND NOTES

HCE Engineers
Hydraulic • CIVIL • Environmental

P.O. Box 7214, Redland Bay, QLD, 4165
Phone: (07) 3829 1399
mail@hce-engineers.com.au
6 Marine Street, Redland Bay

Designed	MN	Drawn	MN	Date	13.12.17
Approved		Scale	AS SHOWN	Rev.	
Drawing No.	8046-S01				1

NOTE:
DEPTH OF SERVICES TO BE CONFIRMED PRIOR TO LAYING PIPE IN ROAD. IF THE DEPTH OF SERVICES VARY FROM THE DRAWING THEN HCE ENGINEERS ARE TO BE INFORMED TO PROVIDE ADVICE REGARDING AN AMENDED DESIGN

SEWER STRUCTURE NO. EX2/1

STRUCTURE TYPE & (DROP)	
COVER TYPE	
BRANCH LINE No.	
BRANCH LINE DROP TYPES	
HOUSE CONNECTION TYPE	
HOUSE CONNECTION LOT NO.	

EXISTING (V)	END
⑧	
1	
V	
	A
	12

EXISTING 6x100Ø ELECTRICAL CONDUITS TOP OF CONDUIT 8.130
EXISTING 150Ø WATER MAIN ASSUMED COVER TOP OF CONDUIT 8.500
EXISTING 2x150Ø TELSTRA CONDUIT ASSUMED COVER TOP OF CONDUIT 8.860
EXISTING 1350Ø STORMWATER PIPE IL 7.080
(CH29.000) 150Ø uPVC SN8 PC IL 6.760 D 2.940 L 2.700

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW201801421

Dated: 10 July 2018

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

Construction must be in accordance with SEQ-SEW-1402-1 version A.

ENVIRONMENTAL NOTES:

NOTE: ALL ENVIRONMENTAL PROTECTION MEASURES SHOULD BE IMPLEMENTED PRIOR TO ANY CONSTRUCTION WORK, INCLUDING CLEARING, COMMENCING.

VEGETATION PROTECTION

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

SOIL

- TOPSOIL AND SUBSOIL SHOULD BE STOCKPILED SEPARATELY.
- CARE SHOULD BE TAKEN TO PREVENT SEDIMENT FROM ENTERING THE STORMWATER SYSTEM. THIS MAY INVOLVE PLACING APPROPRIATE SEDIMENT CONTROLS AROUND THE STOCKPILES.

CREEK CROSSINGS

- SILTATION CONTROL MEASURES SHOULD BE PLACED DOWNSTREAM OF ANY EXCAVATION WORK.
- APPROPRIATE SEDIMENT CONTROL MEASURES SHOULD BE USED TO PREVENT SEDIMENT FROM ENTERING THE CREEK.
- NO SOIL SHOULD BE STOCKPILED WITHIN 5m OF THE CREEK.

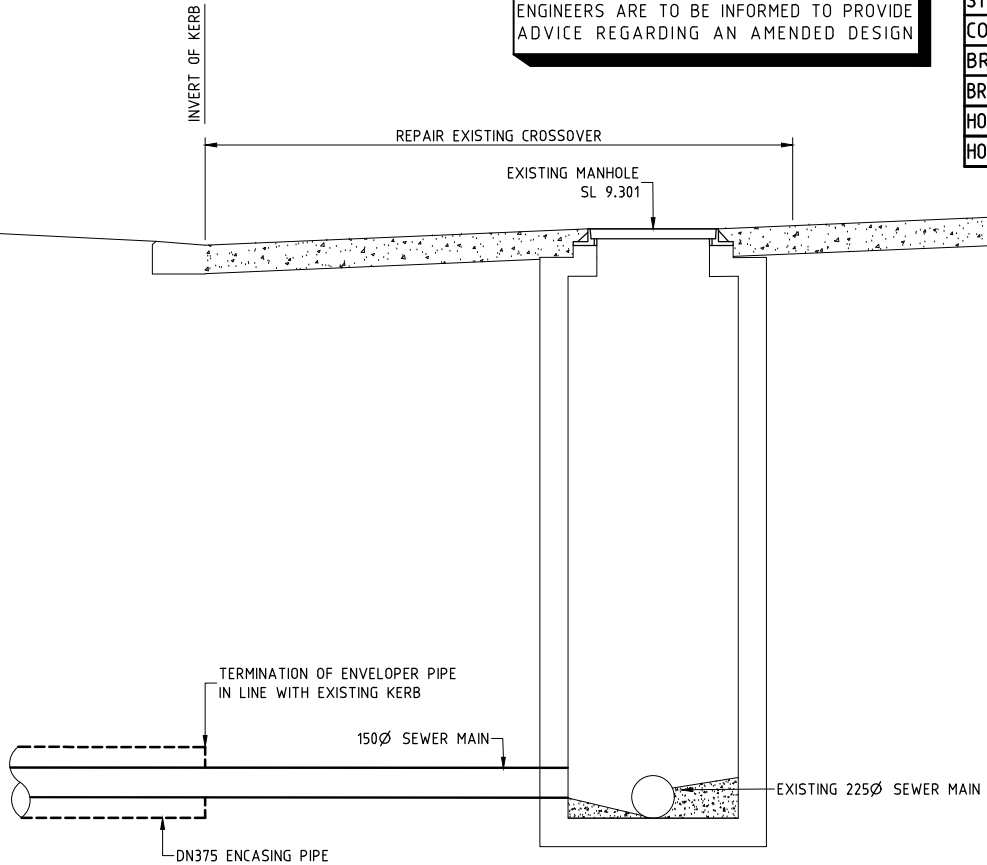
REHABILITATION

- PRE-DISTURBANCE SOIL PROFILES AND COMPACTION LEVELS ARE TO BE REINSTATED.
- PRE-DISTURBANCE VEGETATION PATTERNS SHOULD BE RESTORED.

SAFETY

- THE DESIGN AND CONSTRUCTION OF THE WORKS SHALL COMPLY WITH ALL QUEENSLAND LEGISLATION.

ISSUE	AMENDMENT	DATE
2	RE ISSUED FOR COUNCIL APPROVAL	03.07.18

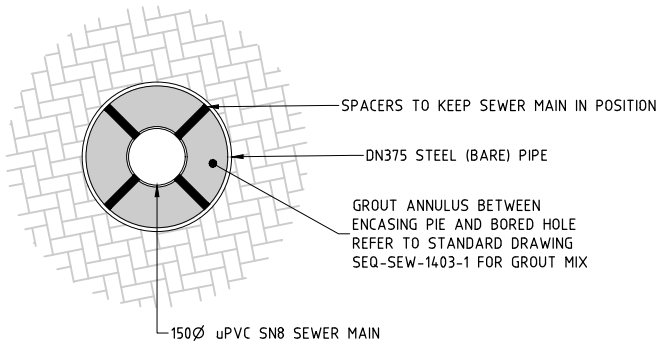


TYPICAL SECTION OF MANHOLE PENETRATION
SCALE 1:20

DATUM	4.000
LOCATION	ROAD RESERVE
DIAMETER/CLASS	150Ø uPVC SN8
GRADE	1in60.00
LENGTH	2.370 20.750 6.680
EMBEDMENT	TYPE 3 GROUT FILLED ANNULUS TYPE 3

BRANCH LINE INVERT LEVEL	6.273
DEPTH BELOW F.S.L.	3.117 3.031
INVERT LEVEL	6.184 6.270 6.770
FINISHED SURFACE LEVEL	9.301 9.420
EXISTING SURFACE LEVEL	9.301 10.830
PEGGED DISTANCE	0.000 29.800

LONGITUDINAL SECTION
SCALES 1:500 (HORIZONTAL)
1:50 (VERTICAL)



ENCASING PIPE AND SEWER MAIN TYPICAL SECTION
SCALE 1:10

THIS DESIGN HAS BEEN PREPARED BASED ON SERVICE AUTHORITY AS CONSTRUCTED INFORMATION. NO POT HOLING HAS BEEN UNDERTAKEN TO VERIFY EXISTING SERVICE LOCATIONS AND DEPTHS. IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERTAKE POT HOLING TO VERIFY THE DESIGN.

CONSTRUCTION METHODOLOGY:

- CONTRACTOR TO BREAK INTO EXISTING MAINTENANCE HOLE EX2/1 AND CONSTRUCT A 150 STUB (TEMPORARILY PLUGGED) PRIOR TO START OF CONSTRUCTION UNDER GOLD COAST WATER SUPERVISION
- CONTRACTOR TO PROVIDE SHORING BOX WITH STEEL PLATE AT END WITHIN TERMINATION PIT TO PROTECT THE EXISTING MANHOLE (EX2/1) DURING BORING ACTIVITIES
- CONTRACTOR TO TUNNEL BORE FROM RIG LOCATION TO 2m APPROX SHORT OF EXISTING MANHOLE IN THE VERGE OF CHRISTENSEN ROAD SOUTH PROGRESSIVELY INSERTING STELL ENVELOPER DURING THIS OPERATION
- TUNNEL BORING MACHINE TO BE REMOVED FROM CONSTRUCTION PIT
- CONTRACTOR TO INSERT 150Ø uPVC SN8 SEWER MAIN WITH SPACERS THROUGH ENVELOPER TO EXISTING MANHOLE IN THE VERGE OF CHRISTENSEN ROAD SOUTH.
- CONTRACTOR TO TRENCH FROM TUNNEL BORING PIT TO PROPOSED END OF LINE LINE AND FROM THE TERMINATION OF BORING TO THE EXISITING MANHOLE AND LAY REMAINING SEWER MAIN.
- SEWER TO BE TESTED IN ACCORDANCE WITH SEQ CODE.
- CONTRACTOR TO GROUT FILL VOID SPACE AROUND TUNNEL BORED SECTION OF SEWER MAIN. REFER TO SEQ-SEW-1403-1
- CONTRACTOR TO REMOVE TEMPORARY PLUG IN MAINTENANCE HOLE 1/EX AFTER SUCCESSFUL 'ON MAINTENANCE' INSPECTION.

GOLD COAST WATER AND CONTRACTOR LIVE SEWER WORK

IT IS THE DEVELOPERS RESPONSIBILITY TO ENSURE ALL LIVE SEWER WORKS ARE COMPLETE BEFORE ALLOWING PRIVATE DRAINAGE TO BE CONNECTED

No.	DESCRIPTION	DIA. SEWER	MH No.	MH TYPE	COVER TYPE	LOT No.	F.S.L.	E.S.L.	IL	DEPTH
1(a)	CONTRACTOR TO BREAK INTO EXISTING MAINTENANCE HOLE EX2/1 AND CONSTRUCT A 150 STUB (TEMPORARILY PLUGGED) PRIOR TO START OF CONSTRUCTION UNDER GOLD COAST WATER SUPERVISION	150	EX2/1	1050	⑧	ROAD RESERVE	9.301	9.301	6.184	3.117
1(b)	CONTRACTOR TO LAY LINE 1.									
1(c)	CONTRACTOR TO REMOVE TEMPORARY PLUG IN MAINTENANCE HOLE 1/EX AFTER SUCCESSFUL 'ON MAINTENANCE' INSPECTION.									

SCALE 1:10 (A1)
(SCALE BEFORE REDUCTION)

SCALE 1:20 (A1)

SCALE 1:50 (A1)
(SCALE BEFORE REDUCTION)

SCALE 1:50 (A1)

SCALE 1:50 (A1)
(SCALE BEFORE REDUCTION)

SCALE 1:500 (A1)

SCALE 1:500 (A1)
(SCALE BEFORE REDUCTION)

REAL PROPERTY DESCRIPTION
LOT 334 ON SP 193431

PROJECT
84 CHRISTENSEN ROAD
SOUTH, STAPYLTON

CLIENT
SPACEFRAME BUILDINGS
PTY LTD

TITLE
SEWERAGE RETICULATION
LONGITUDINAL SECTION



HCE Engineers

Hydraulic • CIVIL • Environmental

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Designed MN Drawn MN Date 13.12.17

Approved AS SHOWN Scale

Drawing No. 8046-S02 Rev. 2

