

- LEGEND**
- SWD PROPOSED STORMWATER PIPE
 - PROPOSED FIELD INLET WITH SW360 ENVIROPOD
 - PROPOSED CONCRETE PAVEMENT REFER R002 FOR DETAILS.
 - 21.0 FINISHED SURFACE CONTOUR
 - 20.5 FINISHED SURFACE CONTOUR
 - 6.0 NATURAL SURFACE CONTOUR
 - IJ CONCRETE PAVEMENT ISOLATION JOINT
 - KJ CONCRETE PAVEMENT KEY JOINT
 - EJ CONCRETE PAVEMENT EXPANSION JOINT
 - SCJ CONCRETE PAVEMENT SAW CUT JOINT

EXISTING SERVICES LEGEND

- S EXISTING SEWER MAIN
- W EXISTING WATER MAIN
- T EXISTING TELECOMMUNICATIONS
- E-O/H EXISTING OVERHEAD ELECTRICAL
- E EXISTING ELECTRICAL

ROADWORKS NOTES

- GEOTECHNICAL TESTING FOR PAVEMENT CONSTRUCTION IS TO BE CARRIED OUT IN ACCORDANCE WITH GOLD COAST CITY COUNCIL STANDARDS. TEST CERTIFICATES ARE TO BE PREPARED BY A REGISTERED N.A.T.A. LABORATORY AT THE CONTRACTOR'S COST AND SHALL BE PROVIDED TO THE ENGINEER PROGRESSIVELY THROUGH THE WORKS. THE CONTRACTOR IS TO NOTIFY THE ENGINEER OF ANY NON-CONFORMANCES. ALL NON CONFORMING WORK IS TO BE RECTIFIED AS DIRECTED BY THE ENGINEER.
- FULL DEPTH PAVEMENT CONSTRUCTION SHALL EXTEND BEHIND ALL KERB AND KERB AND CHANNEL FOR A DISTANCE WHICH IS THE GREATER OF 150mm FROM THE BACK OF KERB OR ACROSS TO THE OUTER LIMIT OF SIDE DRAIN FILTER MATERIAL.
- KERB / KERB AND CHANNEL TRANSITIONS ARE TO BE MADE SMOOTHLY OVER MIN. 1.0m LENGTH.
- PAVEMENT THICKNESSES NOMINATED ON THESE DRAWINGS ARE PROVISIONAL. FOUR DAY SOAKED CBR VALUES SHALL BE TAKEN OF THE INSITU SUBGRADE (AT THE UNDERSIDE OF THE NOMINATED LOWER SUBBASE COURSE WITHIN FILL AREAS, AND TO THE UNDERSIDE OF THE NOMINATED UPPER SUBBASE COURSE WITHIN CUT AREAS) TESTING IS TO BE CARRIED OUT BY A REGISTERED N.A.T.A. LABORATORY AT THE CONTRACTORS COST AND SHALL BE PROVIDED TO THE ENGINEER FOR FINALISATION OF PAVEMENT DESIGN (CONTRACTOR IS TO ALLOW 3 WORKING DAYS FOR ENGINEER'S RESPONSE).
- SUBSOIL DRAINAGE TO BE PROVIDED BENEATH ALL KERBS UNLESS DIRECTED OTHERWISE.
- FOR DIGITAL SETOUT REFER TO CONSULTING ENGINEER FOR DATA.
- THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENT TWENTY-FOUR (24) HOURS IN ADVANCE OF WHEN THE SUBGRADE AND BASE COURSE WILL BE READY FOR THE SUPERINTENDENT'S INSPECTION. PAVING SHALL NOT COMMENCE UNTIL THE SUPERINTENDENT HAS INSPECTED AND APPROVED THE SUBGRADE PREPARATION.
- UNLESS SPECIFIED DIFFERENTLY BY THE RELEVANT LOCAL AUTHORITY, THE MINIMUM COMPACTION REQUIREMENTS SHALL BE:
 - SUBGRADE: 100% STANDARD COMPACTION
 - SUBGRADE REPLACEMENT MATERIAL - 95% MODIFIED COMPACTION
 - SUB-BASE - 95% MODIFIED COMPACTION
 - BASE - 98% MODIFIED COMPACTION
- THE CONTRACTOR IS TO PROVIDE COMPACTION TESTS ON SUBGRADE, SUBGRADE REPLACEMENT, SUB-BASE AND BASE LAYERS AT A FREQUENCY OF ONE (1) TEST PER 100 METRES FOR ROADWAY OR ONE (1) TEST PER 500m² FOR CAR PARKS.

CONTRACTOR TO CONFIRM AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

Live Connections - Arrangements with Water & Waste.

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

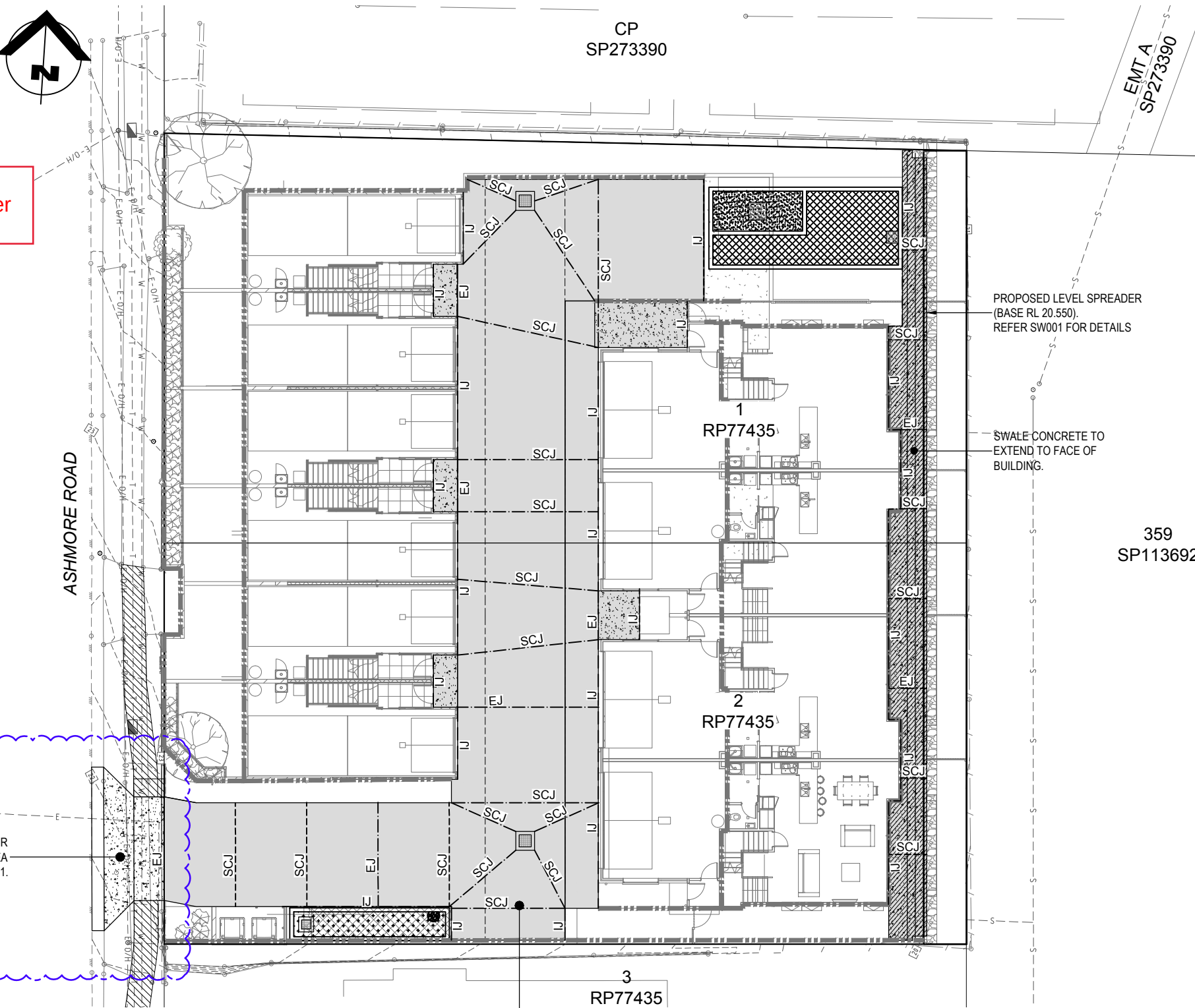
Application No.: OPW/2018/1051

Dated: 8 August 2019

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

PROPOSED 5.2m WIDE CROSSOVER TO BE IN ACCORDANCE WITH IPWEA STD DRG RS-051.

No building approvals shall form part of the development permit.



CP SP273390

EMT A SP273390

PROPOSED LEVEL SPREADER (BASE RL 20.550). REFER SW001 FOR DETAILS

SWALE CONCRETE TO EXTEND TO FACE OF BUILDING.

359 SP113692

3 RP77435

1 RP77435

2 RP77435

PROPOSED CONCRETE PAVEMENT REFER R002 FOR DETAILS

CONTRACTOR TO CONFIRM AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

ISSUED FOR CONSTRUCTION

G	04-07-19	RESPONSE TO RF1
F	15-05-19	CONCRETE JOINTING AMENDED
E	08-05-18	ISSUED FOR CONSTRUCTION
D	01-05-18	ISSUED FOR APPROVAL
C	12-03-18	FOR TENDER
ISSUE NO.	DATE	AMENDMENT

KNOBEL CONSULTING
CIVIL ENGINEERS + HYDRAULIC ENGINEERS + PROJECT MANAGERS

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CLIENT	AUSTRALIAN PROPERTY MANAGEMENT GROUP
PROJECT	PROPOSED TOWNHOUSE DEVELOPMENT 259-261 ASHMORE ROAD BENOWA QLD 4217

DESIGN	JH	DRAWN	JP	APPROVED	TP
T.P.PURDON - R.P.E.Q. NUMBER 12190					
SIGNED				04-07-19	
DATE				DATE	

TITLE		ROADWORKS LAYOUT			
SCALE		1:125 AT A1	0	5	10m
		1:250 AT A3			

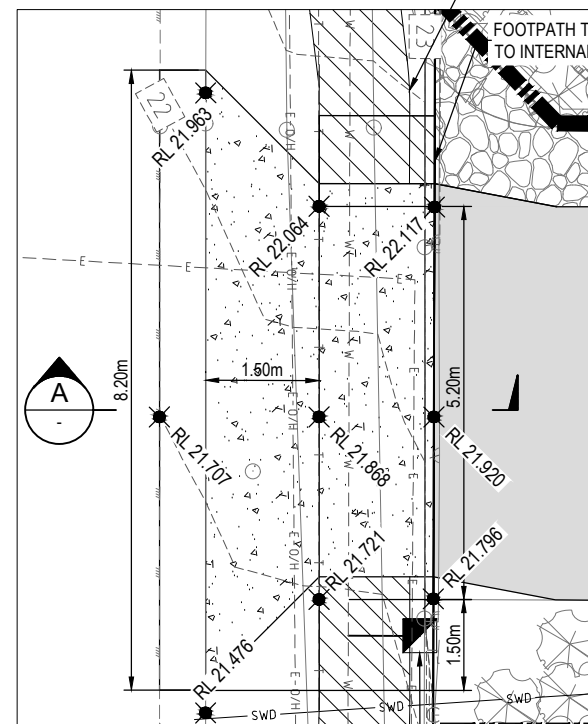
PROJECT NO.		K3999	
DWG NO.	R001	ISSUE	G

LEGEND

	DESIGN SURFACE LEVEL
	PROPOSED RETAINING WALL
	PROPOSED PAVEMENT REFER K3999-R002 FOR DETAILS.
	FINISHED SURFACE CONTOUR
	FINISHED SURFACE CONTOUR
	NATURAL SURFACE CONTOUR

EXISTING SERVICES LEGEND

	EXISTING SEWER MAIN
	EXISTING WATER MAIN
	EXISTING TELECOMMUNICATIONS
	EXISTING OVERHEAD ELECTRICAL
	EXISTING ELECTRICAL



INSET A
SCALE 1:50 AT A1

WATER METER TO BE POSITIONED
FLUSH WITH FOOTPATH.

EXISTING VXO TO BE REMOVED.
KERB, FOOTPATH AND VERGE
TO BE REINSTATED.

The City Sign shall
be 'Like for Like'
with the same
height as before.

EXISTING CITY SIGN TO BE
RELOCATED AS SHOWN.

EXISTING VXO TO BE REMOVED.
KERB, FOOTPATH AND VERGE
TO BE REINSTATED.

EXISTING KERB LINE

EXISTING CONCRETE FOOTPATH
APPROXIMATELY 1.1m TO 1.2m WIDE

1.2m WIDE FOOTPATH TO LINK INTERNAL FOOTPATH
TO THE FOOTPATH ON ASHMORE ROAD. FOOTPATH
TO BE CONSTRUCTED IN ACCORDANCE WITH IPWEA
STD RS-065. DOWELLED EXPANSION JOINTS INTO
EXISTING CONCRETE.

INTERNAL FOOTPATH

EXISTING SIGN TO BE
RELOCATED OUTSIDE VXO.

PROPOSED 5.2m WIDE CROSSOVER.
CONCRETE, STEEL AND KERB
CONNECTION TO BE IN ACCORDANCE
WITH IPWEA STD DRG RS-051.

LOCATION OF PROPOSED WATER METER

EXISTING POWERPOLE TO REMAIN (FROM SURVEY)

LOCATION OF NEIGHBOURING VXO

INTERNAL GRADING IN ACCORDANCE WITH
KNOBEL CONSULTING, FINISHED SURFACE
LEVELS PLAN DRG No. K3999-FS001.

No building approvals shall form
part of the development permit.

PLANS AND DOCUMENTS referred to in the
DEVELOPMENT APPROVAL

Application No: OPW/2018/1051

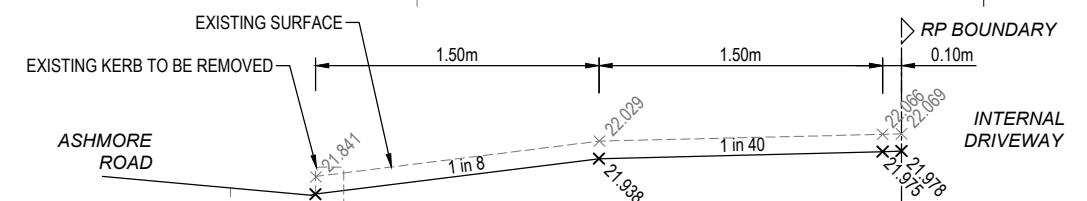
Dated: 8 August 2019

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Scheme, Local Laws and Planning Policies

2
RP77435

PROPOSED CONCRETE PAVEMENT
REFER DRG No. K3999-R002 FOR DETAILS.

3
RP77435



SECTION A
1:50 AT A1

ISSUED FOR
CONSTRUCTION

CONTRACTOR TO CONFIRM AND
LOCATE ALL EXISTING SERVICES PRIOR
TO COMMENCEMENT OF WORKS

NOTE: REDUNDANT STORMWATER KERB
ADAPTORS TO BE REMOVED (INCLUDING ANY
ASSOCIATED PIPEWORK ACROSS THE FOOTPATH.
VERGE AND KERB TO BE REINSTATED).

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AUSTRALIAN PROPERTY MANAGEMENT GROUP
PROJECT
PROPOSED TOWNHOUSE DEVELOPMENT
259-261 ASHMORE ROAD
BENOWA QLD 4217

DESIGN
MD
DRAWN
EW
APPROVED
TP
T.P.PURDON - R.P.E.Q. NUMBER 12190
SIGNED
DATE
04-07-19

TITLE
VXO AND VERGE WORKS PLAN

SCALE
1:100 AT A1
1:200 AT A3
0 2 4 6 8 10m

PROJECT NO.
K3999
DWG NO.
R003
ISSUE
C

LEGEND

- 6.0 --- NATURAL SURFACE CONTOUR
- SWD --- PROPOSED STORMWATER PIPE
- PROPOSED WATER CONNECTION AND METER

EXISTING SERVICES LEGEND

- S --- EXISTING SEWER MAIN
- W --- EXISTING WATER MAIN
- T --- EXISTING TELECOMMUNICATIONS
- E-O/H --- EXISTING OVERHEAD ELECTRICAL
- E --- EXISTING ELECTRICAL
- EXISTING WATER METER

WATER NOTES

- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT SOUTH EAST QUEENSLAND WATER SUPPLY CODE SPECIFICATIONS AND STANDARDS.
- UNLESS SPECIFIED OTHERWISE ALL MATERIALS AND WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
- ADOPT LIP OF KERB OR SHOULDER OF ROAD AS PERMANENT LEVEL.
- THRUST BLOCKS TO BE CONSTRUCTED IN ACCORDANCE WITH SEQ STANDARDS.
- COVER ON MAINS FROM PERMANENT LEVEL TO BE AS SHOWN IN SEQ-WAT-1200-2.
- CONDUITS TO BE INSTALLED IN ACCORDANCE WITH THE STANDARD DRAWINGS.
- 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.
- 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.
- ALL CONCRETE FOOTPATHS TO BE CLEAR OF WATER MAINS.
- TEST/CHLORINATION POINTS TO BE INSTALLED IN ACCORDANCE WITH STANDARD DRAWING NO SEQ-WAT-1410-1.
- 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.

Ø50 WATER METER SCHEDULE OF FITTINGS

- 1 x Ø50 WATER METER
- 1 x 150x50 TAPPING BAND
- 1 x Ø50 SLUICE VALVE
- 1 x METER BOX
- 1 x Ø63 PE PIPE
- 1 x Ø50 DIRT BOX

No building approvals shall form part of the development permit.

EXISTING WATER SERVICE CONNECTION AND WATER METER TO BE REMOVED

EXISTING WATER SERVICE CONNECTION AND WATER METER TO BE REMOVED

EXISTING Ø150 uPVC WATER MAIN

Ø150 x Ø50 TAPPING BAND CONNECTION BY CONTRACTOR UNDER COUNCIL SUPERVISION.

WATER MAIN 700mm DEEP AS DETERMINED BY SITE INVESTIGATION.

PROPOSED WATER CONNECTION TO SERVICE DEVELOPMENT.

Ø50 PROPERTY CONNECTION AND METER.

REFER HYDRAULICS FOR CONTINUATION. EXTENT OF EXISTING SERVICES. REFER WATER CONNECTION SECTION FOR DETAILS.

PROPOSED DN50 WATER METER
PROPOSED 90° PE ELBOW.

EXISTING TELSTRA
EXISTING WATER MAIN

INTERNAL WORKS. REFER HYDRAULIC ENGINEER DRGS FOR CONTINUATION.

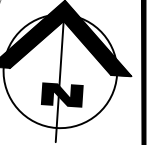
EXISTING ELECTRICAL

400 x 600 THRUST RESTRAINT

WATER CONNECTION SECTION
SCALE: 1:20

CP
SP273390

EMT A
SP273390



359
SP113692

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CONTRACTOR TO CONFIRM AND LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS

ISSUED FOR
CONSTRUCTION

1:20 AT A1
1:40 AT A3
0 500 1000 1500 2000mm

G	06-08-19	RESPONSE TO RFI
F	04-07-19	RESPONSE TO RFI
E	08-05-18	ISSUED FOR CONSTRUCTION
D	01-05-18	ISSUED FOR APPROVAL
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KNOBEL
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GOLD COAST | BRISBANE | BALLINA | ROCKHAMPTON



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DESIGN	JH	DRAWN	JP	APPROVED	TP
T.P.PURDON - R.P.E.Q. NUMBER 12190					
SIGNED					06-08-19
					DATE

TITLE	WATER CONNECTION PLAN
SCALE	1:125 AT A1 1:250 AT A3

0 5 10m

PROJECT NO.	K3999
DWG NO.	W001
ISSUE	G