



LEGEND

- PM PERMANENT MARK
- SHRUB
- ✱ PALM TREE
- TREE  
H: HEIGHT  
D: DIAMETER  
S: SPREAD
- SI SIGN
- LP LIGHT POLE
- EP ELECTRICAL PILLAR
- SL STREET LIGHT
- HYD HYDRANT
- SV STOP VALVE
- KIP - KERB INLET PIT
- SIP - SURFACE INLET PIT
- TEL TELSTRA/COMMS PIT
- GATE
- DRAINAGE LINE
- FENCE LINE
- OVERHEAD ELECTRICAL LINE
- UNDERGROUND ELECTRICITY (QL B)
- UNDERGROUND ELECTRICITY (QL C)
- UNDERGROUND ELECTRICITY (QL D)
- EMK ELECTRICAL MARKER
- UCB UNDERGROUND COMMS (QL B)
- UCD UNDERGROUND COMMS (QL D)
- UWA UNDERGROUND WATER MAIN (QL A)
- UWB UNDERGROUND WATER MAIN (QL B)
- UWC UNDERGROUND WATER MAIN (QL C)
- UWD UNDERGROUND WATER MAIN (QL D)
- SWP STORMWATER PIPE (QL A)
- MINOR CONTOUR LINE
- MAJOR CONTOUR LINE
- BOUNDARY LINE
- BOUNDARY ADJOINING APPROX.
- TOP OF BANKS
- TOE OF BANKS
- SCRUB LINE
- EDGE OF GARDEN
- ① PHOTOGRAPH DIRECTION
- TPL TELSTRA PILLAR
- ST SEPTIC TANK
- SMS SEWER MAINTENANCE SHAFT
- SMH SEWER MAN HOLE
- WM WATER METER
- MISC MISC PIT
- CMK COMMS MARKER
- MK MISC CABLE MARKER

NOTES:-

1. PLEASE REFER TO AS5488-2013-CLASSIFICATION OF SUBSURFACE UTILITY INFORMATION (SUI) FOR THE DEFINITION OF SERVICE LOCATION ACCURACIES SHOWN IN THIS PLAN.
2. SOME UNDERGROUND UTILITIES SHOWN ON THIS PLAN HAVE BEEN ESTIMATED BASED UPON DBYD INFORMATION PLANS. ADDITIONAL SERVICES MAY EXIST THROUGH THE SITE. SERVICE LOCATION HAS BEEN UNDERTAKEN IN PART OF THE CURRENT SCOPE OF WORKS ONLY.
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4. BOUNDARIES ARE BASED ON PRELIMINARY BOUNDARY DEFINITION ONLY. ANY FUTURE PLAN OF SURVEY OF ADJOINING LOTS REGISTERED MAY IMPACT THE SUBJECT BOUNDARIES. IT IS RECOMMENDED THAT A PLAN BE REGISTERED WITH THE LAND REGISTRY SERVICE (LRS) NSW. ALL BOUNDARIES AND EASEMENTS ARE SUBJECT TO FINAL SURVEY AND REGISTRATION OF A PLAN WITH LRS NSW.
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**WARNING**  
OPTICAL FIBRE  
IN AREA

**WARNING**  
UNDERGROUND  
ELECTRICITY LINES

**DIAL 1100**  
BEFORE YOU DIG

drawing title:  
**DETAIL & CONTOUR  
SURVEY OVER PART OF  
LOT 201 & 202 D.P.590247  
& LOT 21 D.P.581462**

location: 15 MENANGLE ROAD & 1370  
MOROTON PARK RD,  
MENANGLE

council: WOLLONDILLY SHIRE

dwg ref: 300058-DET-003-A

client:

**mirvac**

**adw johnson**

central coast office ph: (02) 4305 4300  
hunter office ph: (02) 4978 5100  
sydney office ph: (02) 8046 7411

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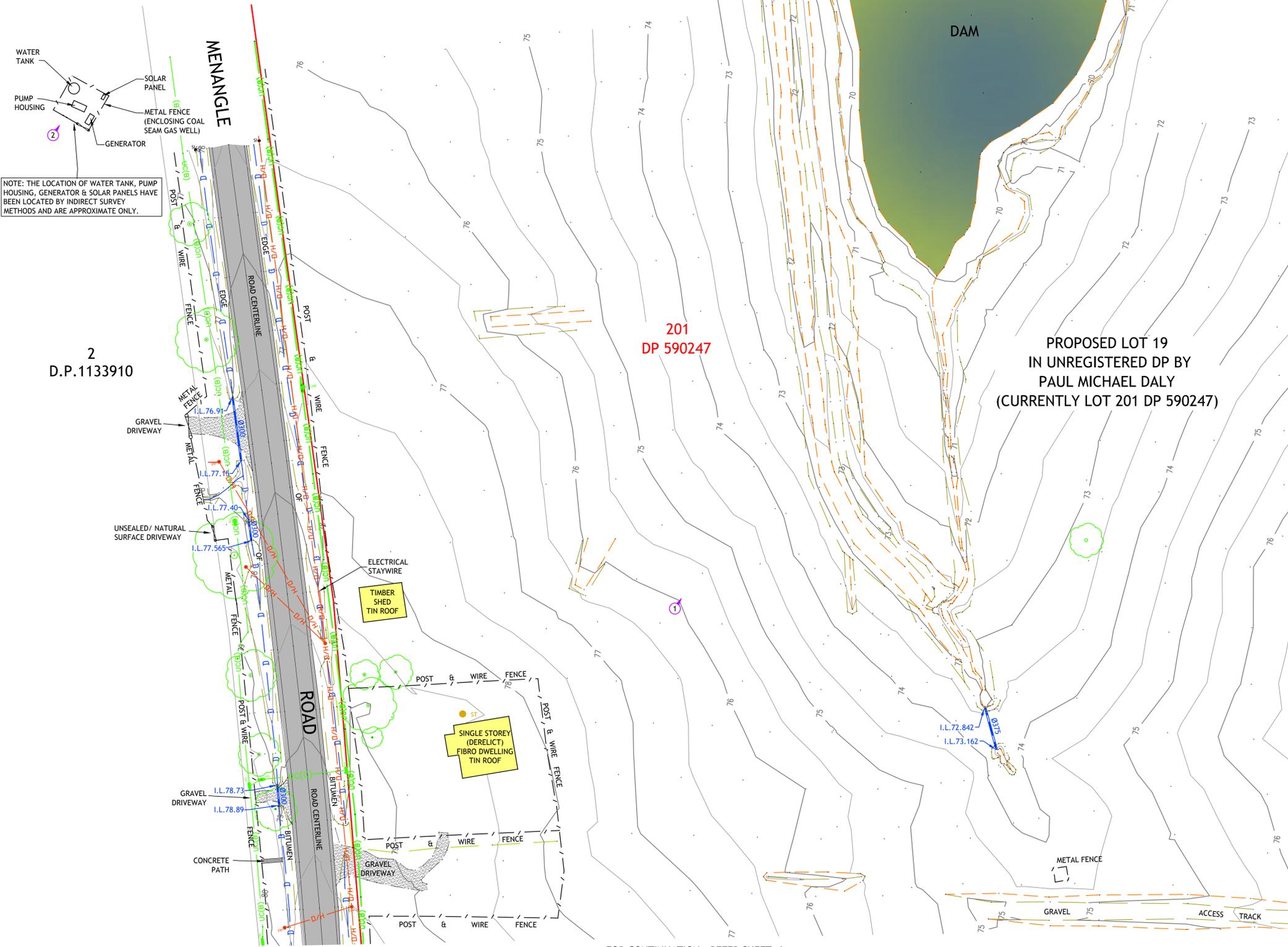
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PHOTO 1



PHOTO 2



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- UNDERGROUND ELECTRICITY (QL D)
- EML ELECTRICAL MARKER
- UNDERGROUND COMMS (QL B)
- UNDERGROUND COMMS (QL C)
- UNDERGROUND COMMS (QL D)
- UNDERGROUND WATER MAIN (QL A)
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- WM WATER METER
- MISC MISC PIT
- CMK COMMS MARKER
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FOR CONTINUATION - REFER SHEET 3 & 5

FOR CONTINUATION - REFER SHEET 6

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drawing title:  
**DETAIL & CONTOUR SURVEY OVER PART OF LOT 201 & 202 D.P.590247 & LOT 21 D.P.581462**

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council: WOLLONDILLY SHIRE

dwg ref: 300058-DET-003-A

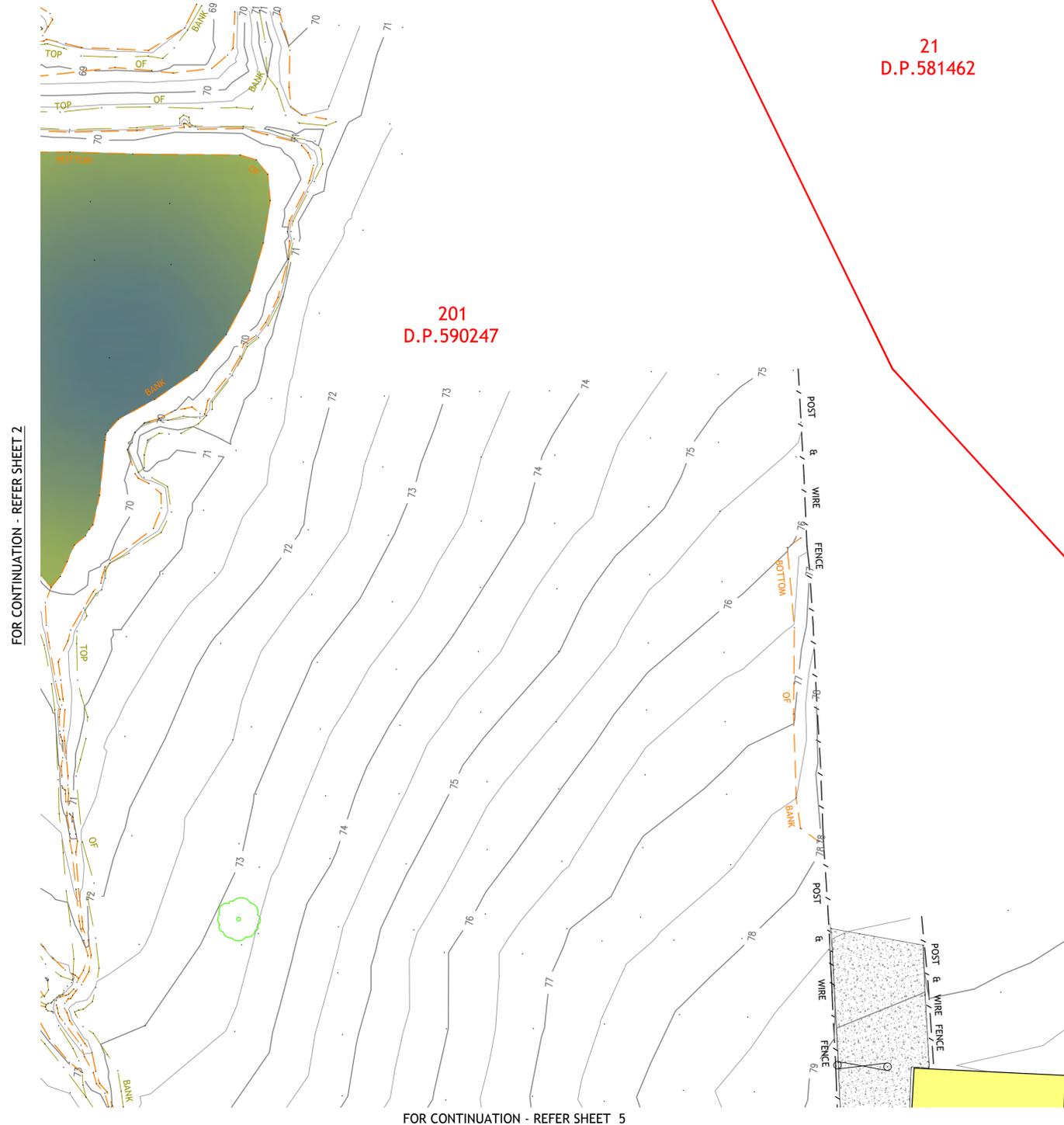
client:

central coast office ph: (02) 4305 4300  
hunter office ph: (02) 4978 5100  
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  - EMK ELECTRICAL MARKER
  - UOB UNDERGROUND COMMS (QL B)
  - UOC UNDERGROUND COMMS (QL C)
  - UOD UNDERGROUND COMMS (QL D)
  - UWA UNDERGROUND WATER MAIN (QL A)
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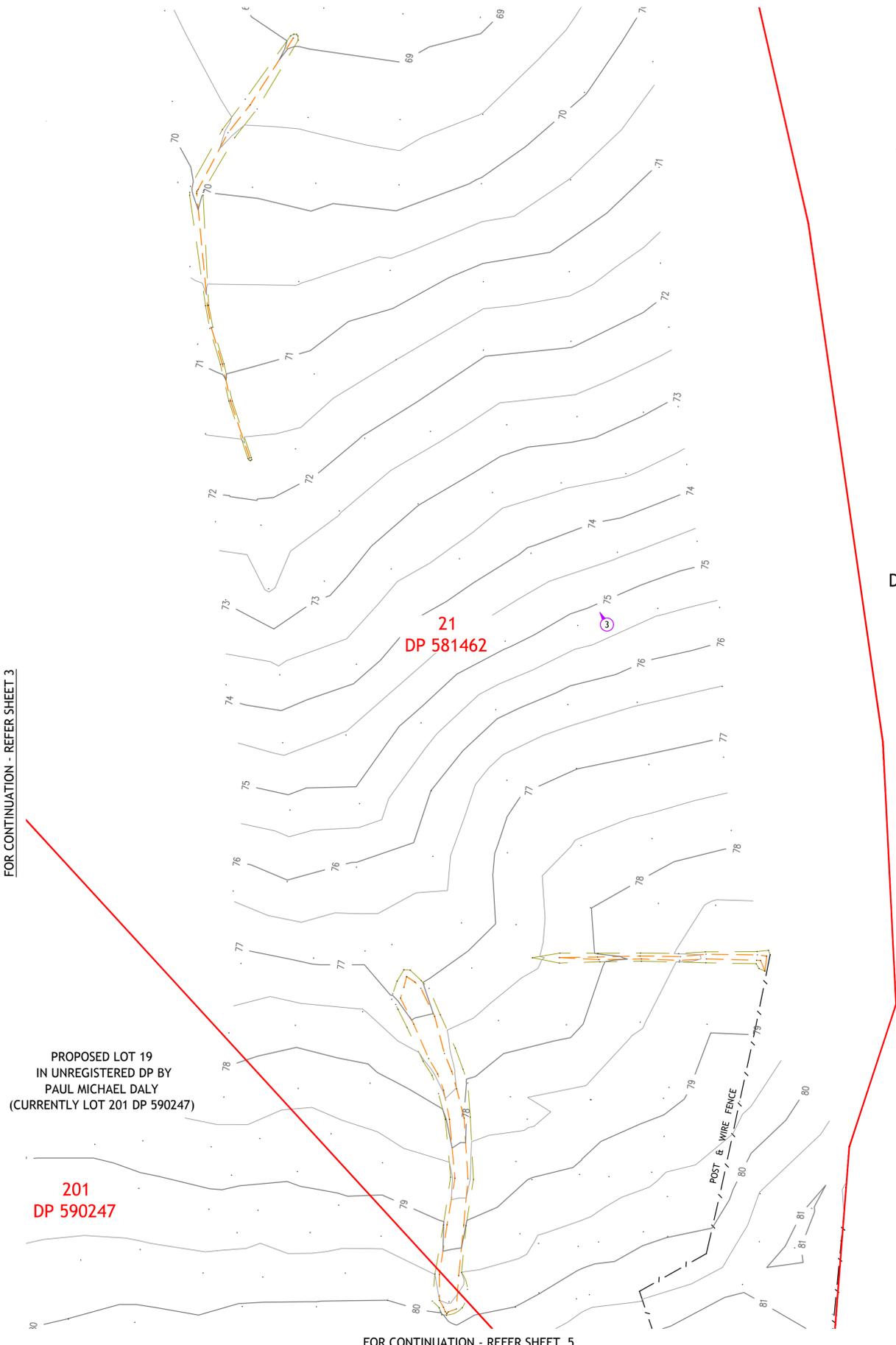


PHOTO 3

3001  
D.P.1211521

SOUTHERN

GREAT

FOR CONTINUATION - REFER SHEET 3

FOR CONTINUATION - REFER SHEET 13

FOR CONTINUATION - REFER SHEET 5

LEGEND	
■ PM	PERMANENT MARK
● SHRUB	SHRUB
✳ PALM TREE	PALM TREE
⊙ TREE	TREE
H HEIGHT	H:HEIGHT
D:DIAMETER	D:DIAMETER
S:SPREAD	S:SPREAD
● SI	SIGN
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■ GATE	GATE
— DRAINAGE LINE	DRAINAGE LINE
— FENCE LINE	FENCE LINE
— OVERHEAD ELECTRICAL LINE	OVERHEAD ELECTRICAL LINE
— UNDERGROUND ELECTRICITY (QL B)	UNDERGROUND ELECTRICITY (QL B)
— UNDERGROUND ELECTRICITY (QL C)	UNDERGROUND ELECTRICITY (QL C)
— UNDERGROUND ELECTRICITY (QL D)	UNDERGROUND ELECTRICITY (QL D)
● EMK	ELECTRICAL MARKER
— UNDERGROUND COMMS (QL B)	UNDERGROUND COMMS (QL B)
— UNDERGROUND COMMS (QL C)	UNDERGROUND COMMS (QL C)
— UNDERGROUND COMMS (QL D)	UNDERGROUND COMMS (QL D)
— UNDERGROUND WATER MAIN (QL A)	UNDERGROUND WATER MAIN (QL A)
— UNDERGROUND WATER MAIN (QL B)	UNDERGROUND WATER MAIN (QL B)
— UNDERGROUND WATER MAIN (QL C)	UNDERGROUND WATER MAIN (QL C)
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— MINOR CONTOUR LINE	MINOR CONTOUR LINE
— MAJOR CONTOUR LINE	MAJOR CONTOUR LINE
— BOUNDARY LINE	BOUNDARY LINE
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QL - 'B': INFORMATION IS COLLECTED BY DESIGNATING THE HORIZONTAL AND VERTICAL LOCATION OF UNDERGROUND UTILITIES BY USING ELECTROMAGNETIC PIPE AND CABLE LOCATORS, SONDES OR FLEXI-TRACE EQUIPMENT. THIS IS THE MOST COMMON FORM OF UTILITY LOCATING. ALTHOUGH AN X, Y AND Z AXIS CAN BE ESTABLISHED IT IS NOT ALWAYS ENTIRELY ACCURATE DUE TO DIFFERING ELECTROMAGNETIC FIELDS, SOIL CONDITIONS AND MULTIPLE BANKS OF CABLES AFFECTING THE LOCATING SIGNAL.

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QL - 'D': INFORMATION IS THE MOST BASIC LEVEL OF UTILITY LOCATIONS USING ONLY INFORMATION BASED ON EXISTING DIAL-BEFORE-YOU-DIG PLANS AND BY MEASURING BOUNDARY OFFSETS AS WELL AS ASSISTANCE VIA GROUND PENETRATING RADAR ETC. THIS METHOD OF UTILITY LOCATIONS SHOULD ALWAYS BE TREATED AS AN INDICATION OF THE PRESENCE OF A SERVICE ONLY AND SHOULD NOT BE USED FOR DESIGN.

ALL UTILITIES ARE QL - 'D' UNLESS OTHERWISE NOTED



drawing title:  
**DETAIL & CONTOUR SURVEY OVER PART OF LOT 201 & 202 D.P.590247 & LOT 21 D.P.581462**

location: 15 MENANGLE ROAD & 1370 MORETON PARK RD, MENANGLE

council: WOLLONDILLY SHIRE

dwg ref: 300058-DET-003-A

client:

central coast office ph: (02) 4305 4300  
hunter office ph: (02) 4978 5100  
sydney office ph: (02) 8046 7411

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Plotfile By: Patrick Buscombe Plot Date: 18/09/2018 Cad File: S:\300058 Drawings\Survey\DETAILS\300058-DET-003-A.dwg  
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ver.	date	comment	surveyed	drawn	checked	pm	co-ordinate information	level information	scale (A1 original size)	page
A	17.09.18	INITIAL ISSUE: DET-001 & DET-002 PREVIOUS PLANS COMBINED	DK	AE	CG	CM	CO-ORDINATE SYSTEM: MGA 56 ORIGIN OF CO-ORDINATES: P.M.30963 DATE OF SURVEY: 07.09.18	DATUM: AHD ORIGIN OF LEVELS: P.M.30963	CONTOUR INTERVAL: 0.5m	4 OF 21

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PHOTO 4

201  
D.P.590247

21  
DP 581462

3001  
D.P.1211521

SOUTHERN

GREAT

FOR CONTINUATION - REFER SHEET 2 & 6

PROPOSED LOT 19  
IN UNREGISTERED DP BY  
PAUL MICHAEL DALY  
(CURRENTLY LOT 201 DP 590247)

SUBSURFACE UTILITY INVESTIGATION (SUI) QUALITY LEVEL LABELLING UTILITY INFORMATION BY A CLASSIFICATION CODE ALLOWS THE USER OF THIS INFORMATION TO UNDERSTAND CLEARLY HOW THE INFORMATION WAS COLLECTED AND THEN PLACE AN APPROPRIATE AMOUNT OF RELIANCE ON IT. PROJECT RISKS RELATED TO UNDERGROUND UTILITIES CAN THEN BE PROPERLY MANAGED.

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- (B) EASEMENT FOR SEWER 2 WIDE (D.P. 581462)
- (C) EASEMENT FOR PIPELINE 6 WIDE (D.P. 581462)
- (D) RIGHT OF CARRIAGEWAY 6 WIDE & VARIABLE WIDTH (D.P. 581462)
- (E) EASEMENT FOR PIPELINE PURPOSES OVER EXISTING LINE OF PIPES (D.P. 595674)

ALL UTILITIES ARE QL - 'D' UNLESS OTHERWISE NOTED

FOR CONTINUATION - REFER SHEET 7

NOTE: PIPE WAS UNABLE TO BE REMOTELY LOCATED BY ELECTROMAGNETIC TRACE IN THIS AREA. EXISTING PIPE MAY HAVE BEEN RELOCATED. FURTHER INVESTIGATION IS REQUIRED TO CONFIRM THE LOCATION/EXISTENCE OF THIS PIPE PRIOR TO FINAL DESIGN AND EXCAVATION.

LEGEND

- PM PERMANENT MARK
- SHRUB
- PALM TREE
- TREE (H:HEIGHT, D:DIAMETER, S:SPREAD)
- SI SIGN
- LP LIGHT POLE
- EP ELECTRICAL PILLAR
- SL STREET LIGHT
- HYD HYDRANT
- SV STOP VALVE
- KIP - KERB INLET PIT
- SIP - SURFACE INLET PIT
- TEL TELSTRA/COMMS PIT
- GATE
- DRAINAGE LINE
- FENCE LINE
- OVERHEAD ELECTRICAL LINE
- UNDERGROUND ELECTRICITY (QL B)
- UNDERGROUND ELECTRICITY (QL C)
- UNDERGROUND ELECTRICITY (QL D)
- ELECTRICAL MARKER
- UNDERGROUND COMMS (QL B)
- UNDERGROUND COMMS (QL C)
- UNDERGROUND COMMS (QL D)
- UNDERGROUND WATER MAIN (QL A)
- UNDERGROUND WATER MAIN (QL B)
- UNDERGROUND WATER MAIN (QL C)
- UNDERGROUND WATER MAIN (QL D)
- STORMWATER PIPE (QL A)
- MINOR CONTOUR LINE
- MAJOR CONTOUR LINE
- BOUNDARY LINE
- BOUNDARY ADJOINING APPROX.
- TOP OF BANKS
- TOE OF BANKS
- SCRUB LINE
- EDGE OF GARDEN
- PHOTOGRAPH DIRECTION
- TPIL TELSTRA PILLAR
- ST SEPTIC TANK
- SMS SEWER MAINTENANCE SHAFT
- SMH SEWER MAN HOLE
- WM WATER METER
- MISC MISC PIT
- CMK COMMS MARKER
- MK MISC CABLE MARKER

NOTES:-

1. PLEASE REFER TO ASS488-2013-CLASSIFICATION OF SUBSURFACE UTILITY INFORMATION (SUI) FOR THE DEFINITION OF SERVICE LOCATION ACCURACIES SHOWN IN THIS PLAN.
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WARNING OPTICAL FIBRE IN AREA

WARNING UNDERGROUND ELECTRICITY LINES

drawing title:  
DETAIL & CONTOUR  
SURVEY OVER PART OF  
LOT 201 & 202 D.P.590247  
& LOT 21 D.P.581462

location:  
15 MENANGLE ROAD & 1370  
MORETON PARK RD,  
MENANGLE

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PHOTO 5

201  
DP 590247

PROPOSED LOT 19  
IN UNREGISTERED DP BY  
PAUL MICHAEL DALY  
(CURRENTLY LOT 201 DP 590247)

PROPOSED LOTS IN UNREGISTERED  
DP BY PAUL MICHAEL DALY  
(CURRENTLY LOT 201 DP590247)

LEGEND

- PM PERMANENT MARK
- SHRUB
- PALM TREE
- TREE
- H-HEIGHT
- D-DIAMETER
- S-SPREAD
- SI SIGN
- LP LIGHT POLE
- EP ELECTRICAL PILLAR
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- TEL TELSTRA/COMMS PIT
- GATE
- DRAINAGE LINE
- FENCE LINE
- OVERHEAD ELECTRICAL LINE
- UNDERGROUND ELECTRICITY (QL B)
- UNDERGROUND ELECTRICITY (QL C)
- UNDERGROUND ELECTRICITY (QL D)
- ELECTRICAL MARKER
- EMK UNDERGROUND COMMS (QL B)
- UNDERGROUND COMMS (QL C)
- UNDERGROUND COMMS (QL D)
- UNDERGROUND WATER MAIN (QL A)
- UNDERGROUND WATER MAIN (QL B)
- UNDERGROUND WATER MAIN (QL C)
- UNDERGROUND WATER MAIN (QL D)
- STORMWATER PIPE (QL A)
- MINOR CONTOUR LINE
- MAJOR CONTOUR LINE
- BOUNDARY LINE
- BOUNDARY ADJOINING APPROX.
- TOP OF BANKS
- TOE OF BANKS
- SCRUB LINE
- EDGE OF GARDEN
- PHOTOGRAPH DIRECTION
- TPIL TELSTRA PILLAR
- ST SEPTIC TANK
- SMS SEWER MAINTENANCE SHAFT
- SMH SEWER MAN HOLE
- WM WATER METER
- MISC MISC PIT
- CMK COMMS MARKER
- MK MISC CABLE MARKER

(A1) PROPOSED EASEMENT TO DRAIN WATER 1.5 WIDE (BY UNREGISTERED DP)

NOTES:-

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Plotfile By: Patrick Buscombe Plot Date: 18/09/2018 Cod File: S:\300058\Drawings\Survey\DETAILS\300058-DET-003-A.dwg This plan includes coloured information. If you have a black and white copy, you do not have all of the information. This note is coloured RED.

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drawing title:  
**DETAIL & CONTOUR SURVEY OVER PART OF LOT 201 & 202 D.P.590247 & LOT 21 D.P.581462**

location: 15 MENANGLE ROAD & 1370 MORETON PARK RD, MENANGLE

council: WOLLONDILLY SHIRE

dwg ref: 300058-DET-003-A

client:

central coast office ph: (02) 4305 4300  
hunter office ph: (02) 4978 5100  
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working beyond expectations



PHOTO 7



PHOTO 8



PHOTO 9

SUBSURFACE UTILITY INVESTIGATION (SUI) QUALITY LEVEL LABELLING UTILITY INFORMATION BY A CLASSIFICATION CODE ALLOWS THE USER OF THIS INFORMATION TO UNDERSTAND CLEARLY HOW THE INFORMATION WAS COLLECTED AND THEN PLACE AN APPROPRIATE AMOUNT OF RELIANCE ON IT. PROJECT RISKS RELATED TO UNDERGROUND UTILITIES CAN THEN BE PROPERLY MANAGED.

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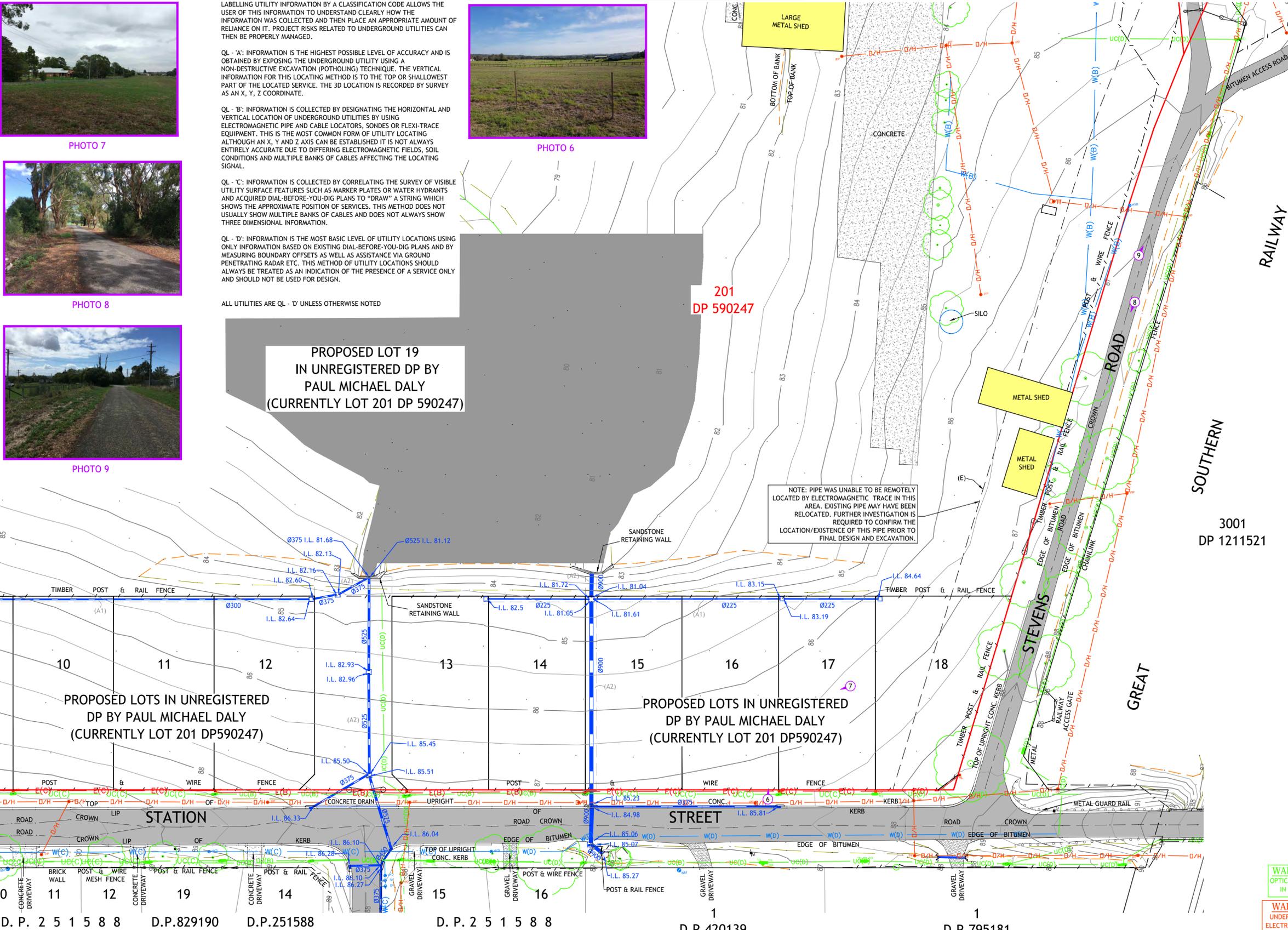
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FOR CONTINUATION - REFER SHEET 5 & 6



PHOTO 6



- LEGEND
PM PERMANENT MARK
SHRUB
PALM TREE
TREE
H:HEIGHT
D:DIAMETER
S:SPREAD
SI SIGN
LP LIGHT POLE
EP ELECTRICAL PILLAR
SL STREET LIGHT
HYD HYDRANT
SV STOP VALVE
KIP - KERB INLET PIT
SIP - SURFACE INLET PIT
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GATE
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UNDERGROUND ELECTRICITY (QL B)
UNDERGROUND ELECTRICITY (QL C)
UNDERGROUND ELECTRICITY (QL D)
ELECTRICAL MARKER
UNDERGROUND COMMS (QL B)
UNDERGROUND COMMS (QL C)
UNDERGROUND COMMS (QL D)
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STORMWATER PIPE (QL A)
MINOR CONTOUR LINE
MAJOR CONTOUR LINE
BOUNDARY LINE
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TOP OF BANKS
TOE OF BANKS
SCRUB LINE
EDGE OF GARDEN
PHOTOGRAPH DIRECTION
TELSTRA PILLAR
SEPTIC TANK
SEWER MAINTENANCE SHAFT
SEWER MAN HOLE
WATER METER
MISC PIT
COMMS MARKER
MISC CABLE MARKER

FOR CONTINUATION - REFER SHEET 16

- NOTES:
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FOR CONTINUATION - REFER SHEET 8

Table with columns: ver., date, comment, surveyed, drawn, checked, pm, co-ordinate information, level information, scale (A1 original size), page. Includes details like 'MGA 56 CO-ORDINATE SYSTEM', 'D.A.TUM: AHD', 'CONTOUR INTERVAL: 0.5m', and 'SCALE: 1:500 (FULL)'.

WARNING OPTICAL FIBRE IN AREA

WARNING UNDERGROUND ELECTRICITY LINES



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PHOTO 10



PHOTO 11



PHOTO 12

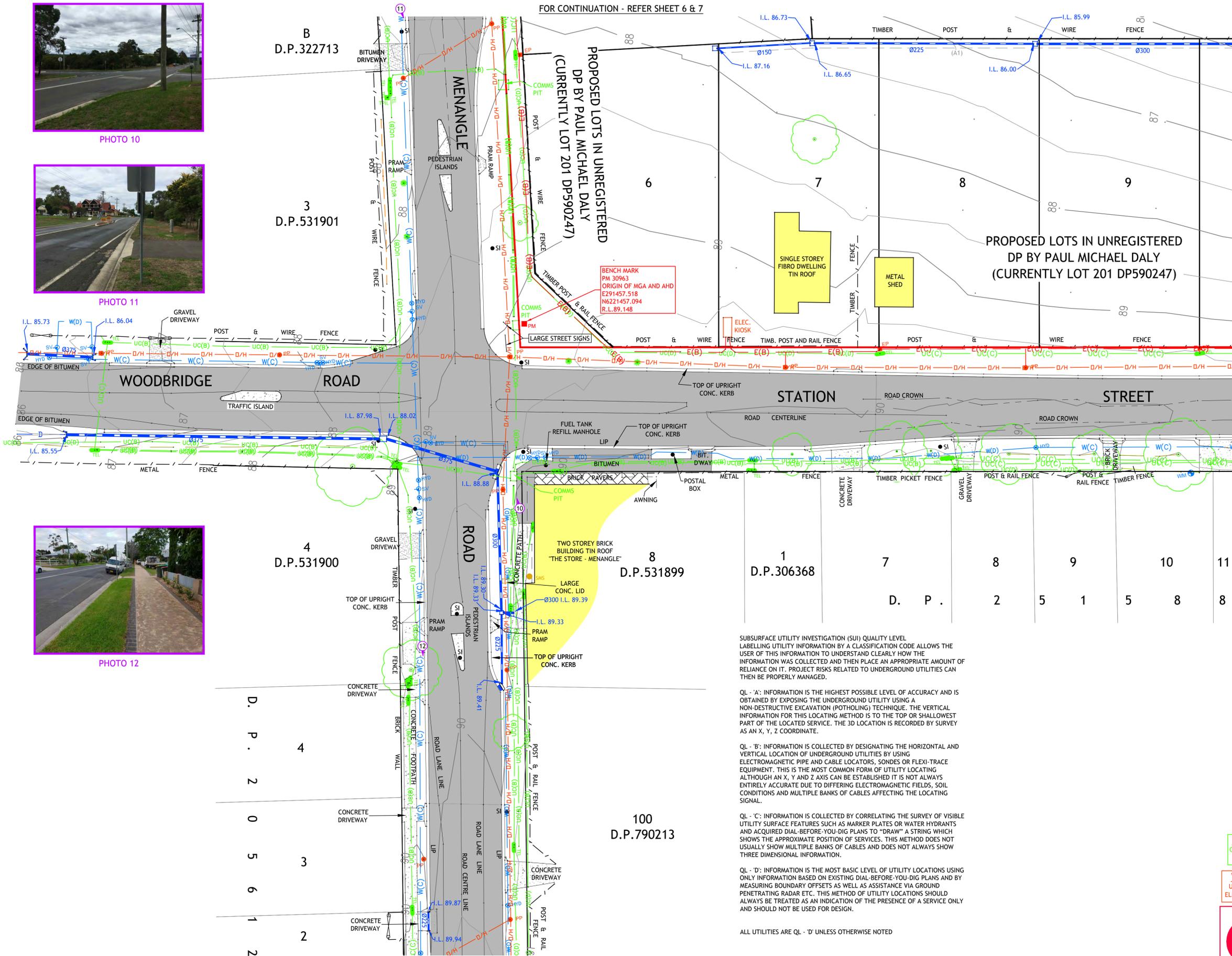
FOR CONTINUATION - REFER SHEET 6 & 7

LEGEND

- PM PERMANENT MARK
- SHRUB
- PALM TREE
- TREE
- H: HEIGHT
- D: DIAMETER
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- SI SIGN
- LP LIGHT POLE
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- EMK UNDERGROUND COMMS (QL C)
- UNDERGROUND COMMS (QL C)
- UNDERGROUND COMMS (QL D)
- UNDERGROUND WATER MAIN (QL A)
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- UNDERGROUND WATER MAIN (QL D)
- STORMWATER PIPE (QL A)
- MINOR CONTOUR LINE
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SUBSURFACE UTILITY INVESTIGATION (SUI) QUALITY LEVEL LABELLING UTILITY INFORMATION BY A CLASSIFICATION CODE ALLOWS THE USER OF THIS INFORMATION TO UNDERSTAND CLEARLY HOW THE INFORMATION WAS COLLECTED AND THEN PLACE AN APPROPRIATE AMOUNT OF RELIANCE ON IT. PROJECT RISKS RELATED TO UNDERGROUND UTILITIES CAN THEN BE PROPERLY MANAGED.

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FOR CONTINUATION - REFER SHEET 9 & 10

ver.	date	comment	surveyed	drawn	checked	pm	co-ordinate information	level information	scale (A1 original size)	page
A	17.09.18	INITIAL ISSUE: DET-001 & DET-002 PREVIOUS PLANS COMBINED	DK	AE	CG	CM	CO-ORDINATE SYSTEM: MGA 56 ORIGIN OF CO-ORDINATES: P.M.30963 DATE OF SURVEY: 07.09.18	DATUM: AHD ORIGIN OF LEVELS: P.M.30963 CONTOUR INTERVAL: 0.5m	0 6.0 12.0 15.0m SCALE: 1:300 (FULL)	8 OF 21

(A1) PROPOSED EASEMENT TO DRAIN WATER 1.5 WIDE (BY UNREGISTERED DP)



drawing title:  
**DETAIL & CONTOUR SURVEY OVER PART OF LOT 201 & 202 D.P.590247 & LOT 21 D.P.581462**

location: 15 MENANGLE ROAD & 1370 MORETON PARK RD, MENANGLE

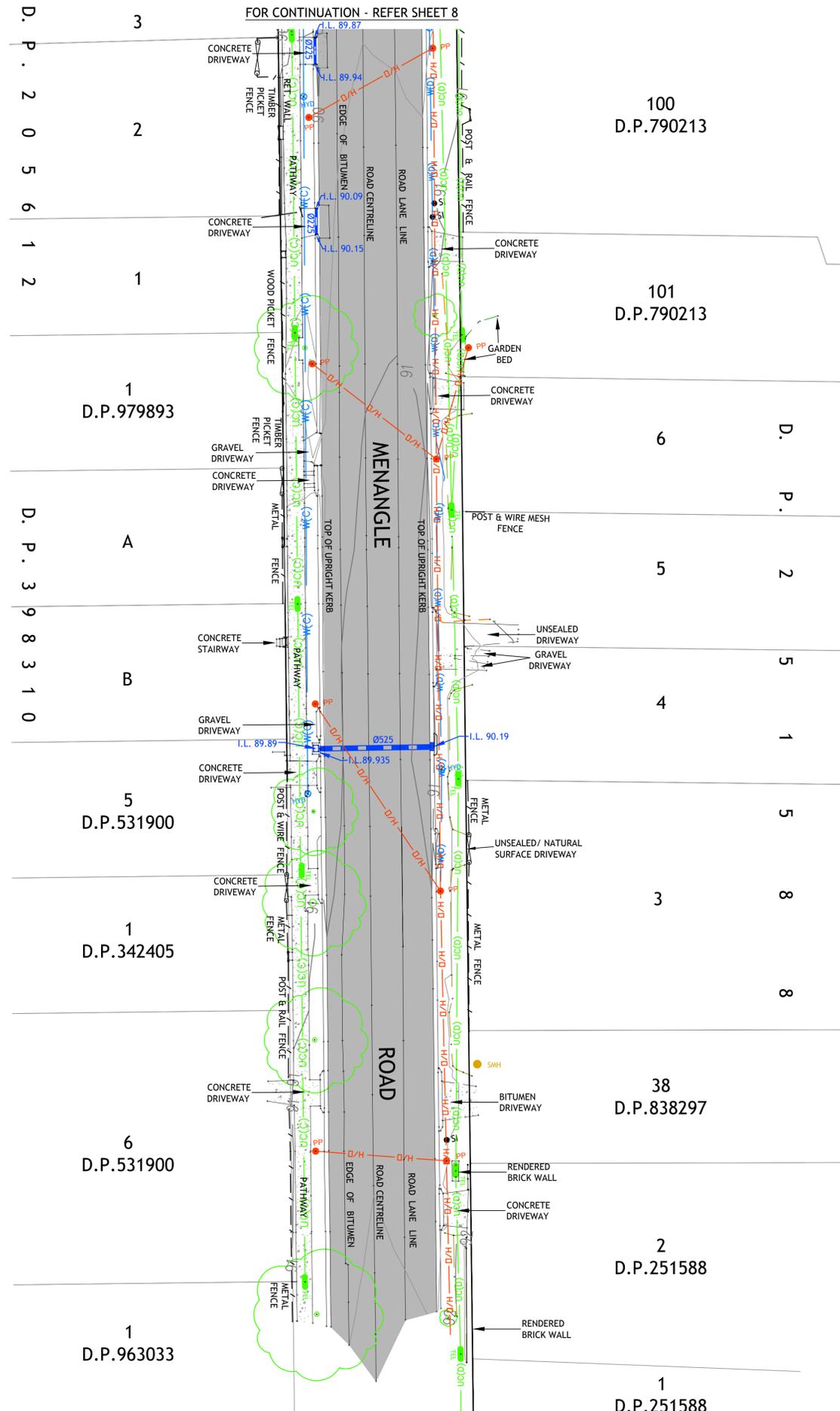
council: WOLLONDILLY SHIRE

dwg ref: 300058-DET-003-A

client:

central coast office ph: (02) 4305 4300  
hunter office ph: (02) 4978 5100  
sydney office ph: (02) 8046 7411

www.adwjohanson.com.au



### LEGEND

- PM PERMANENT MARK
- SHRUB
- TREE (HEIGHT, D:DIAMETER, S:SPREAD)
- SI SIGN
- LP LIGHT POLE
- EP ELECTRICAL PILLAR
- SL STREET LIGHT
- HYD HYDRANT
- SV STOP VALVE
- KIP - KERB INLET PIT
- SIP - SURFACE INLET PIT
- TEL TELSTRA/COMMS PIT
- GATE
- DRAINAGE LINE
- FENCE LINE
- OVERHEAD ELECTRICAL LINE
- UNDERGROUND ELECTRICITY (QL B)
- UNDERGROUND ELECTRICITY (QL C)
- UNDERGROUND ELECTRICITY (QL D)
- ELECTRICAL MARKER
- UNDERGROUND COMMS (QL B)
- UNDERGROUND COMMS (QL C)
- UNDERGROUND COMMS (QL D)
- UNDERGROUND WATER MAIN (QL A)
- UNDERGROUND WATER MAIN (QL B)
- UNDERGROUND WATER MAIN (QL C)
- UNDERGROUND WATER MAIN (QL D)
- STORMWATER PIPE (QL A)
- MINOR CONTOUR LINE
- MAJOR CONTOUR LINE
- BOUNDARY LINE
- BOUNDARY ADJOINING APPROX.
- TOP OF BANKS
- TOE OF BANKS
- SCRUB LINE
- EDGE OF GARDEN
- PHOTOGRAPH DIRECTION
- TPIL TELSTRA PILLAR
- ST SEPTIC TANK
- SMS SEWER MAINTENANCE SHAFT
- SMH SEWER MAN HOLE
- WM WATER METER
- MISC MISC PIT
- MISC MISC
- CMK COMMS MARKER
- MK MISC CABLE MARKER



FOR CONTINUATION - REFER SHEET 10

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**DETAIL & CONTOUR SURVEY OVER PART OF LOT 201 & 202 D.P.590247 & LOT 21 D.P.581462**

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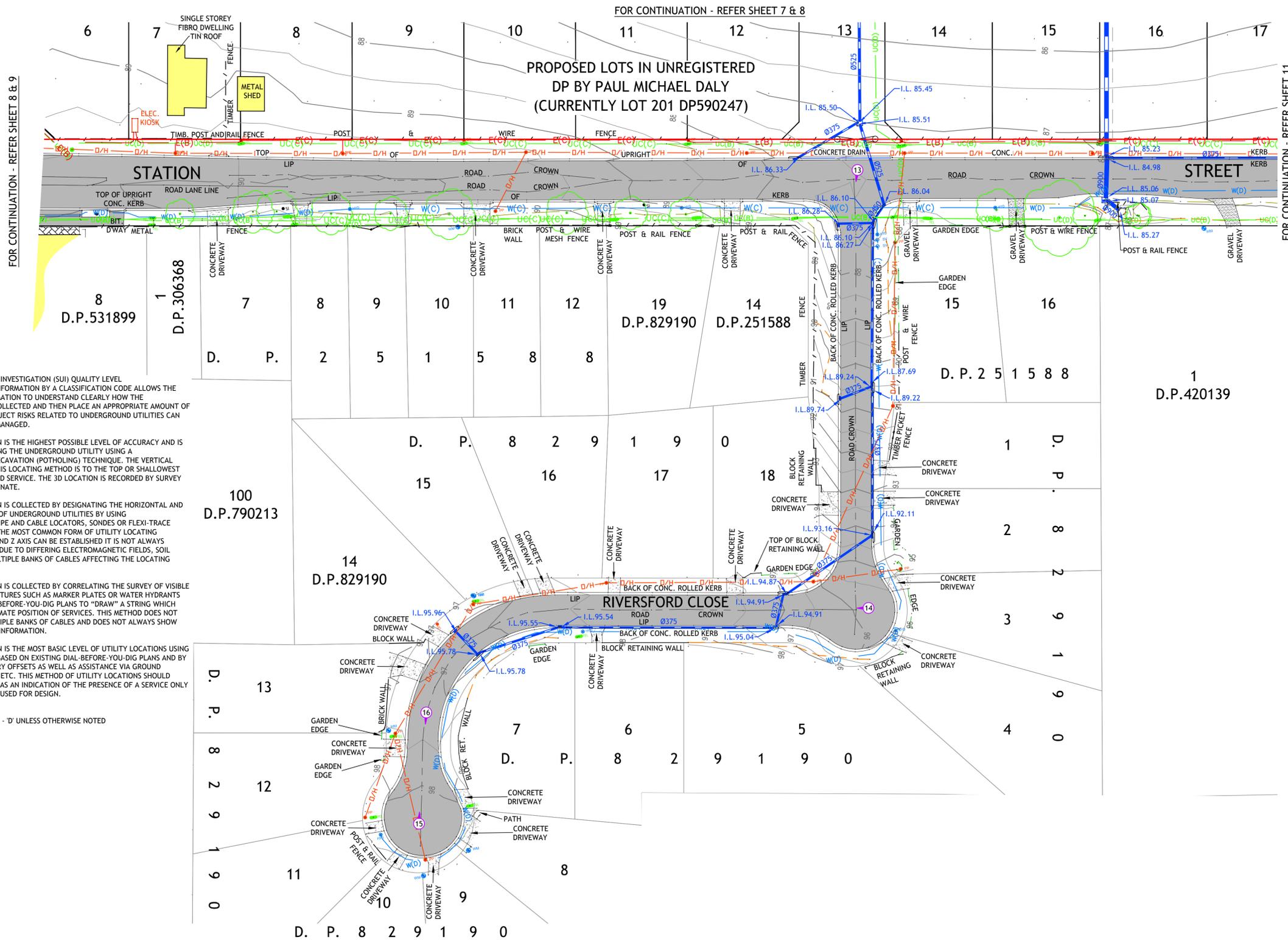
council: WOLLONDILLY SHIRE

dwg ref: 300058-DET-003-A

client:

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### LEGEND

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- SHRUB
- PALM TREE
- TREE (H=HEIGHT, D=DIAMETER, S=SPREAD)
- SI SIGN
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- OVERHEAD ELECTRICAL LINE
- UNDERGROUND ELECTRICITY (QL B)
- UNDERGROUND ELECTRICITY (QL C)
- UNDERGROUND ELECTRICITY (QL D)
- EMK ELECTRICAL MARKER
- UNDERGROUND COMMS (QL B)
- UNDERGROUND COMMS (QL C)
- UNDERGROUND COMMS (QL D)
- UNDERGROUND WATER MAIN (QL A)
- UNDERGROUND WATER MAIN (QL B)
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- STORMWATER PIPE (QL A)
- MINOR CONTOUR LINE
- MAJOR CONTOUR LINE
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- TOP OF BANKS
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PHOTO 13



PHOTO 14



PHOTO 15

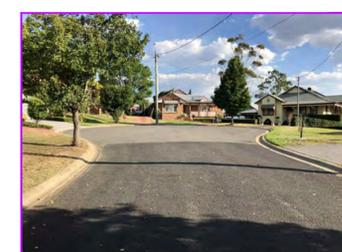


PHOTO 16

ver.	date	comment	surveyed	drawn	checked	pm	co-ordinate information	level information	scale (A1 original size)	page
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**WARNING**  
OPTICAL FIBRE  
IN AREA

**WARNING**  
UNDERGROUND  
ELECTRICITY LINES



drawing title:  
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location: 15 MENANGLE ROAD & 1370 MORETON PARK RD, MENANGLE

council: WOLLONDILLY SHIRE

dwg ref: 300058-DET-003-A

client: **mirvac** **adw johnson**

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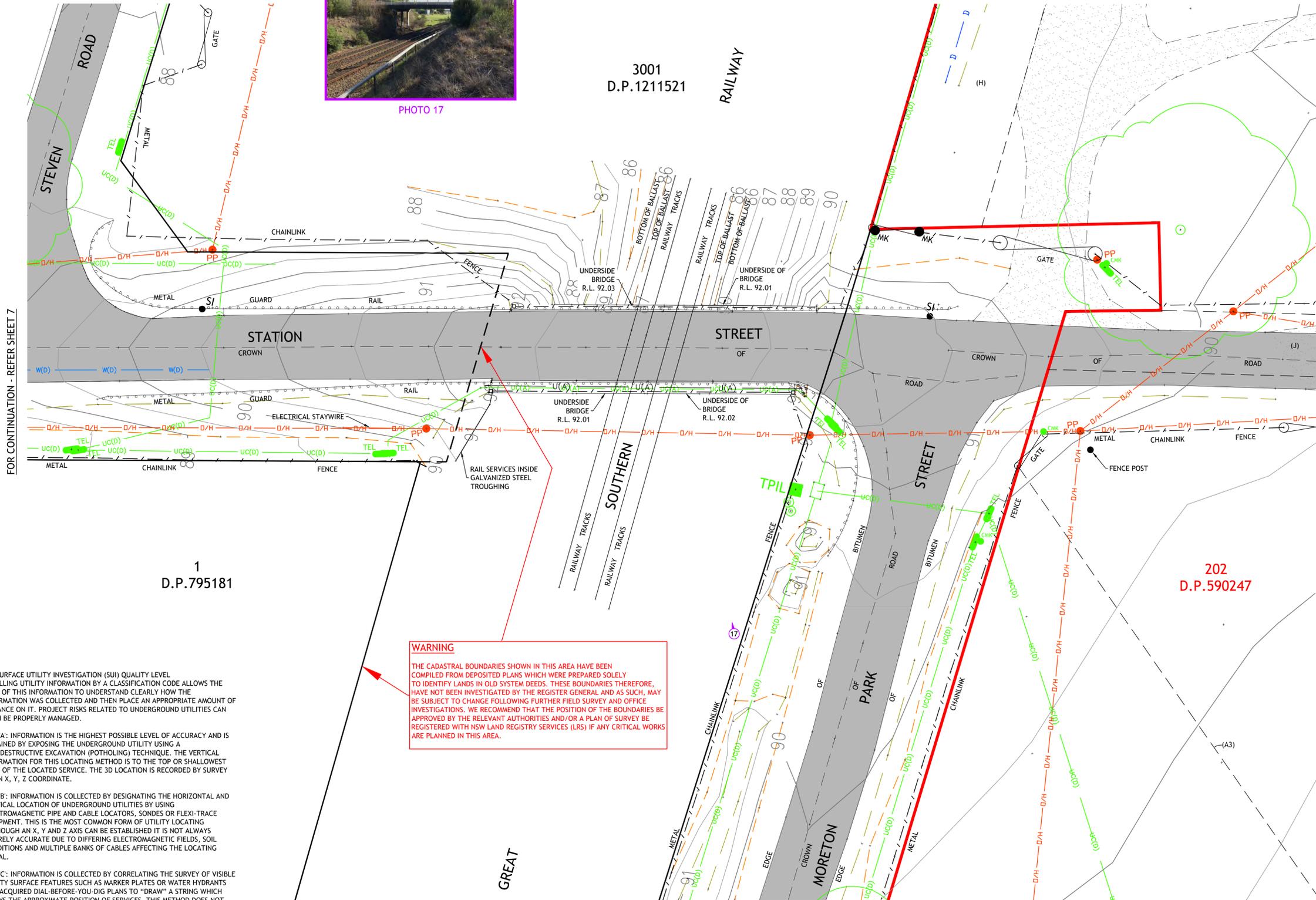
FOR CONTINUATION - REFER SHEET 16



PHOTO 17

3001  
D.P.1211521

RAILWAY



FOR CONTINUATION - REFER SHEET 18

LEGEND

- PM PERMANENT MARK
SHRUB
PALM TREE
TREE
H:HEIGHT
D:DIAMETER
S:SPREAD
SI SIGN
LP LIGHT POLE
EP ELECTRICAL PILLAR
SL STREET LIGHT
HYD HYDRANT
SV STOP VALVE
KIP - KERB INLET PIT
SIP - SURFACE INLET PIT
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- (A3) EASEMENT FOR PIPELINE PURPOSES OVER EXISTING LINE OF PIPES (DP595674)
(H) RIGHT OF CARRIAGEWAY 10.06 WIDE & VARIABLE (H860443)
(J) EASEMENT FOR PIPELINE 6 WIDE (DP595674)

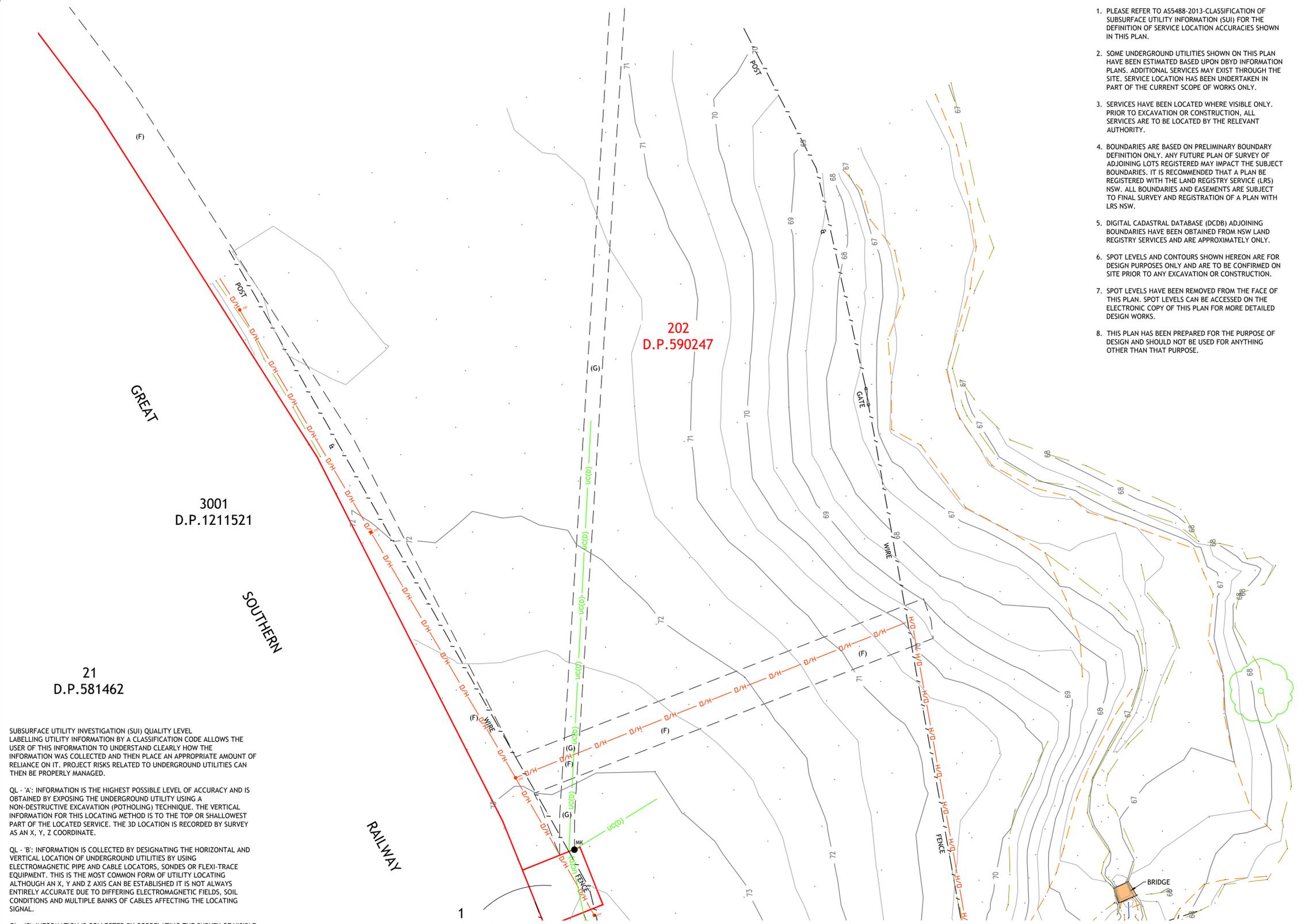
Table with columns: ver., date, comment, surveyed, drawn, checked, pm, co-ordinate information, level information, scale (A1 original size), page. Row 1: A, 17.09.18, INITIAL ISSUE: DET-001 & DET-002 PREVIOUS PLANS COMBINED, DK, AE, CG, CM, CO-ORDINATE SYSTEM: MGA 56, DATUM: AHD, ORIGIN OF LEVELS: P.M.30963, CONTOUR INTERVAL: 0.5m, 11 OF 21



WARNING OPTICAL FIBRE IN AREA
WARNING UNDERGROUND ELECTRICITY LINES

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working beyond expectations



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LEGEND

- PM PERMANENT MARK
- SHRUB
- PALM TREE
- TREE (H:HEIGHT, D:DIAMETER, S:SPREAD)
- SI SIGN
- LP LIGHT POLE
- EP ELECTRICAL PILLAR
- SL STREET LIGHT
- HYD HYDRANT
- SV STOP VALVE
- KIP - KERB INLET PIT
- SIP - SURFACE INLET PIT
- TEL TELSTRA/COMMS PIT
- GATE
- DRAINAGE LINE
- FENCE LINE
- OVERHEAD ELECTRICAL LINE
- UNDERGROUND ELECTRICITY (QL B)
- UNDERGROUND ELECTRICITY (QL C)
- UNDERGROUND ELECTRICITY (QL D)
- ELECTRICAL MARKER
- UNDERGROUND COMMS (QL B)
- UNDERGROUND COMMS (QL C)
- UNDERGROUND COMMS (QL D)
- UNDERGROUND WATER MAIN (QL A)
- UNDERGROUND WATER MAIN (QL B)
- UNDERGROUND WATER MAIN (QL C)
- UNDERGROUND WATER MAIN (QL D)
- STORMWATER PIPE (QL A)
- MINOR CONTOUR LINE
- MAJOR CONTOUR LINE
- BOUNDARY LINE
- BOUNDARY ADJOINING APPROX.
- TOP OF BANKS
- TOE OF BANKS
- SCRUB LINE
- EDGE OF GARDEN
- PHOTOGRAPH DIRECTION
- TPIL TELSTRA PILLAR
- ST SEPTIC TANK
- SMS SEWER MAINTENANCE SHAFT
- SMH SEWER MAN HOLE
- WM WATER METER
- MISC MISC PIT
- CMK COMMS MARKER
- MK MISC CABLE MARKER



SUBSURFACE UTILITY INVESTIGATION (SUI) QUALITY LEVEL LABELLING UTILITY INFORMATION BY A CLASSIFICATION CODE ALLOWS THE USER OF THIS INFORMATION TO UNDERSTAND CLEARLY HOW THE INFORMATION WAS COLLECTED AND THEN PLACE AN APPROPRIATE AMOUNT OF RELIANCE ON IT. PROJECT RISKS RELATED TO UNDERGROUND UTILITIES CAN THEN BE PROPERLY MANAGED.

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ver.	date	comment	surveyed	drawn	checked	pm	co-ordinate information	level information	scale (A1 original size)	page
A	17.09.18	INITIAL ISSUE: DET-001 & DET-002 PREVIOUS PLANS COMBINED	DK	AE	CG	CM	CO-ORDINATE SYSTEM: MGA 56 ORIGIN OF CO-ORDINATES: P.M.30963 DATE OF SURVEY: 07.09.18	DATUM: AHD ORIGIN OF LEVELS: P.M.30963 CONTOUR INTERVAL: 0.5m	0 12.5 25.0m SCALE: 1:500 (FULL)	12 OF 21

(F) EASEMENT FOR OVERHEAD POWER LINES 10 WIDE & VARIABLE (DP1152514)  
(G) EASEMENT FOR P.M.G. CO-AXIAL CABLE 3.66 WIDE (K230727)



DIAL 1100 BEFORE YOU DIG

drawing title:  
**DETAIL & CONTOUR SURVEY OVER PART OF LOT 201 & 202 D.P.590247 & LOT 21 D.P.581462**

location: 15 MENANGLE ROAD & 1370 MORETON PARK RD, MENANGLE

council: WOLLONDILLY SHIRE

dwg ref: 300058-DET-003-A

client:




central coast office ph: (02) 4305 4300  
hunter office ph: (02) 4978 5100  
sydney office ph: (02) 8046 7411

www.adwjohanson.com.au

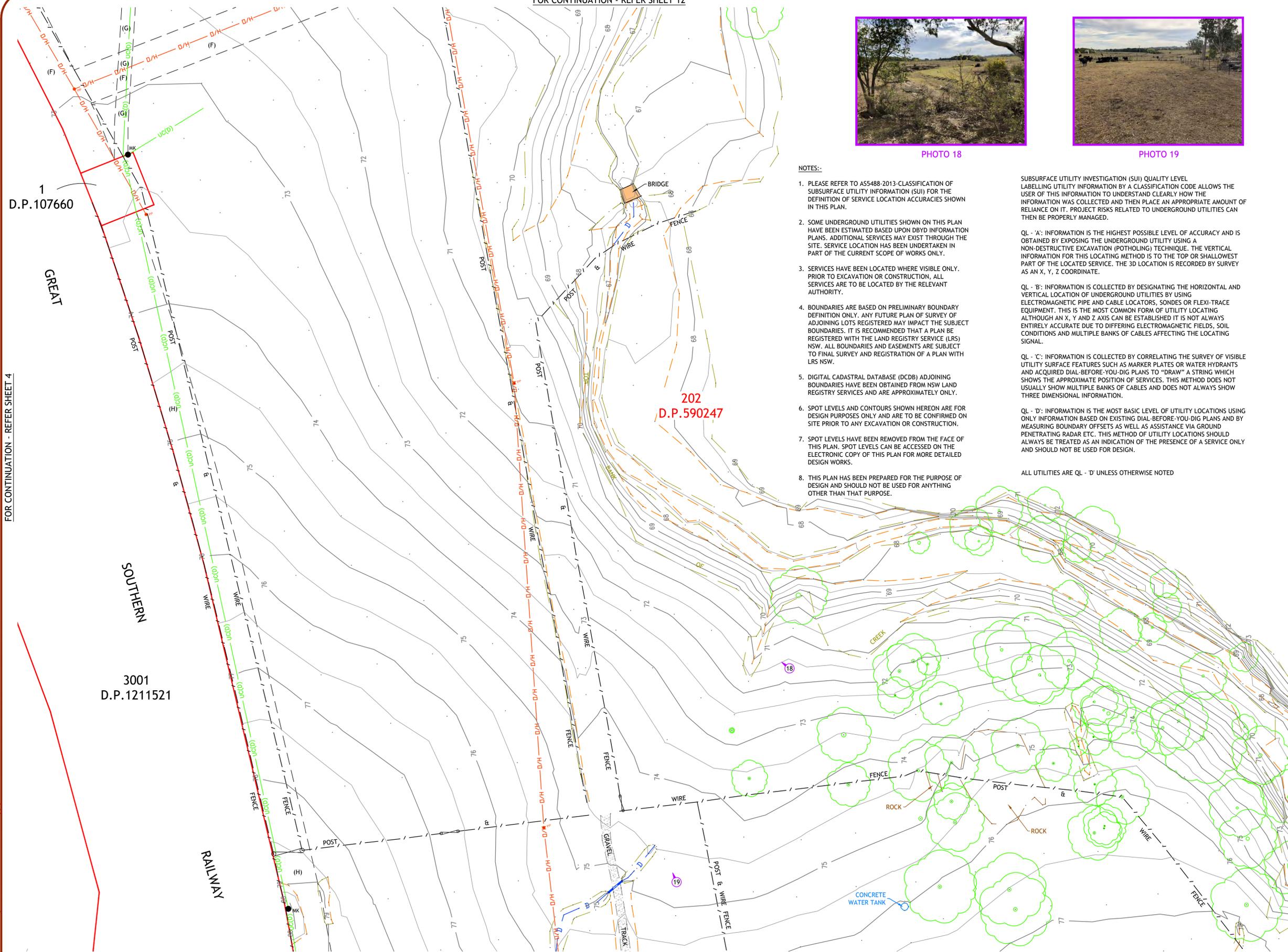


PHOTO 18



PHOTO 19

LEGEND

- PM PERMANENT MARK
- SHRUB
- PALM TREE
- TREE
- H/HEIGHT
- D-DIAMETER
- S-SPREAD
- SI SIGN
- LP LIGHT POLE
- EP ELECTRICAL PILLAR
- SL STREET LIGHT
- HYD HYDRANT
- SV STOP VALVE
- KIP - KERB INLET PIT
- SIP - SURFACE INLET PIT
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- DRAINAGE LINE
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- UNDERGROUND ELECTRICITY (QL B)
- UNDERGROUND ELECTRICITY (QL C)
- UNDERGROUND ELECTRICITY (QL D)
- ELECTRICAL MARKER
- UNDERGROUND COMMS (QL B)
- UNDERGROUND COMMS (QL C)
- UNDERGROUND COMMS (QL D)
- UNDERGROUND WATER MAIN (QL A)
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- UNDERGROUND WATER MAIN (QL D)
- STORMWATER PIPE (QL A)
- MINOR CONTOUR LINE
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- BOUNDARY LINE
- BOUNDARY ADJOINING APPROX.
- TOP OF BANKS
- TOE OF BANKS
- SCRUB LINE
- EDGE OF GARDEN
- PHOTOGRAPH DIRECTION
- TELSTRA PILLAR
- SEPTIC TANK
- SEWER MAINTENANCE SHAFT
- SEWER MAN HOLE
- WATER METER
- MISC PIT
- MISC
- COMMS MARKER
- MISC CABLE MARKER

NOTES:

1. PLEASE REFER TO A55488-2013-CLASSIFICATION OF SUBSURFACE UTILITY INFORMATION (SUI) FOR THE DEFINITION OF SERVICE LOCATION ACCURACIES SHOWN IN THIS PLAN.
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FOR CONTINUATION - REFER SHEET 4

FOR CONTINUATION - REFER SHEET 14

Plotted By: Patrick Buscombe Plot Date: 18/09/2018 Cad File: S:\300058 Drawings\Survey\DETAILS\300058-DET-003-A.dwg  
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ver.	date	comment	surveyed	drawn	checked	pm	co-ordinate information	level information	scale (A1 original size)	page
A	17.09.18	INITIAL ISSUE: DET-001 & DET-002 PREVIOUS PLANS COMBINED	DK	AE	CG	CM	CO-ORDINATE SYSTEM: MGA 56 ORIGIN OF CO-ORDINATES: P.M.30963 DATE OF SURVEY: 07.09.18	DATUM: AHD ORIGIN OF LEVELS: P.M.30963 CONTOUR INTERVAL: 0.5m	0 12.5 25.0m SCALE: 1:500 (FULL)	13 OF 21

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 (G) EASEMENT FOR P.M.G. CO-AXIAL CABLE 3.66 WIDE (K230727)  
 (H) RIGHT OF CARRIAGEWAY 10.06 WIDE & VARIABLE (H860443)

**WARNING**  
OPTICAL FIBRE  
IN AREA

**WARNING**  
UNDERGROUND  
ELECTRICITY LINES

**DIAL 1100**  
BEFORE YOU DIG

drawing title:  
**DETAIL & CONTOUR  
 SURVEY OVER PART OF  
 LOT 201 & 202 D.P.590247  
 & LOT 21 D.P.581462**

location:  
 15 MENANGLE ROAD & 1370  
 MORETON PARK RD,  
 MENANGLE

council: WOLLONDILLY SHIRE

dwg ref: 300058-DET-003-A

client:

**mirvac**

**adw johnson**

central coast office ph: (02) 4305 4300  
 hunter office ph: (02) 4978 5100  
 sydney office ph: (02) 8046 7411

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working beyond expectations



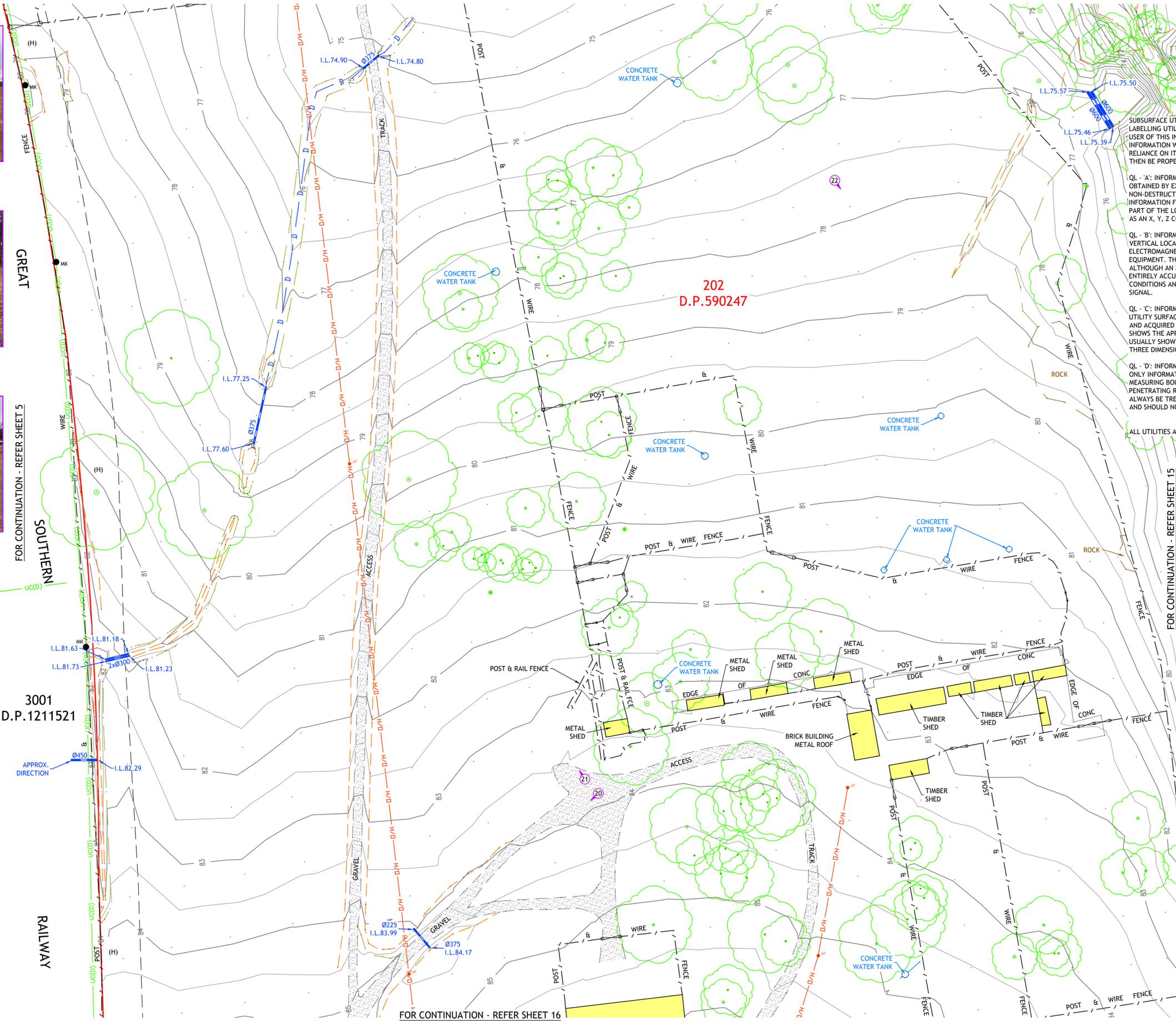
PHOTO 20



PHOTO 21



PHOTO 22



**WARNING**  
OPTICAL FIBRE  
IN AREA

**WARNING**  
UNDERGROUND  
ELECTRICITY LINES

**DIAL 1100**  
BEFORE YOU DIG

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**LEGEND**

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- UNDERGROUND ELECTRICITY (QL B)
- UNDERGROUND ELECTRICITY (QL C)
- UNDERGROUND ELECTRICITY (QL D)
- EMK ELECTRICAL MARKER
- UNDERGROUND COMMS (QL B)
- UNDERGROUND COMMS (QL C)
- UNDERGROUND COMMS (QL D)
- UNDERGROUND WATER MAIN (QL A)
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- UNDERGROUND WATER MAIN (QL D)
- STORMWATER PIPE (QL A)
- MINOR CONTOUR LINE
- MAJOR CONTOUR LINE
- BOUNDARY LINE
- BOUNDARY ADJOINING APPROX.
- TOP OF BANKS
- TOE OF BANKS
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- EDGE OF GARDEN
- PHOTOGRAPH DIRECTION
- TELSTRA PILLAR
- ST SEPTIC TANK
- SMS SEWER MAINTENANCE SHAFT
- SMH SEWER MAN HOLE
- WM WATER METER
- MISC MISC PIT
- CMK COMMS MARKER
- MK MISC CABLE MARKER

3001  
D.P.1211521

202  
D.P.590247

FOR CONTINUATION - REFER SHEET 16

FOR CONTINUATION - REFER SHEET 15

drawing title:  
**DETAIL & CONTOUR SURVEY OVER PART OF LOT 201 & 202 D.P.590247 & LOT 21 D.P.581462**

location:  
15 MENANGLE ROAD & 1370 MORETON PARK RD, MENANGLE

council: WOLLONDILLY SHIRE

dwg ref: 300058-DET-003-A

client:

**mirvac**

**adw johnson**

central coast office ph: (02) 4305 4300  
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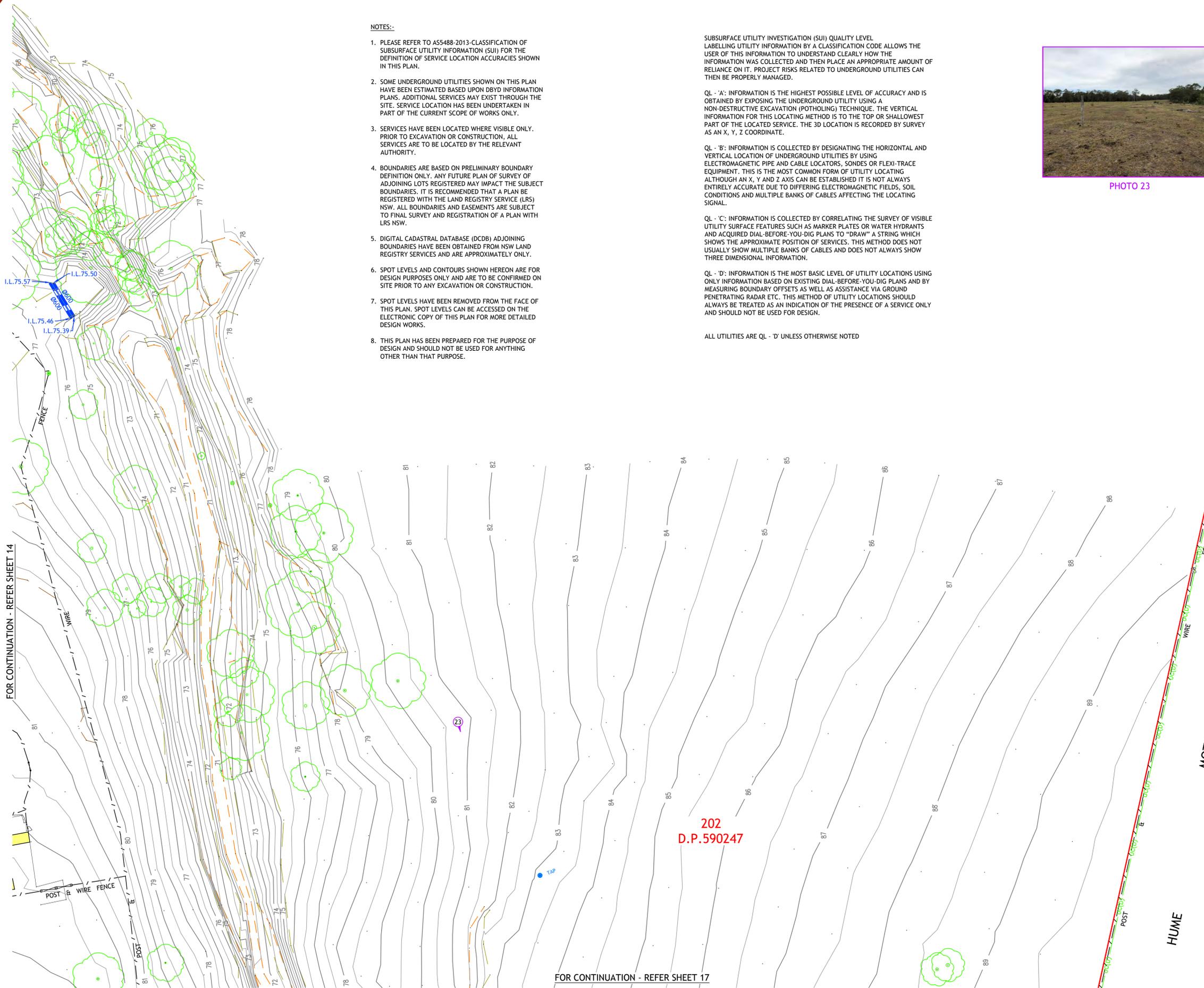
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Plotted By: Patrick Buscombe Plot Date: 18/09/2018 Cad File: S:\300058\Drawings\Survey\DETAILS\300058-DET-003-A.dwg  
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working beyond expectations



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- TEL TELSTRA/COMMS PIT
- GATE
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- FENCE LINE
- OHM OVERHEAD ELECTRICAL LINE
- UG B UNDERGROUND ELECTRICITY (QL B)
- UG C UNDERGROUND ELECTRICITY (QL C)
- UG D UNDERGROUND ELECTRICITY (QL D)
- EMK ELECTRICAL MARKER
- UG B UNDERGROUND COMMS (QL B)
- UG C UNDERGROUND COMMS (QL C)
- UG D UNDERGROUND COMMS (QL D)
- WMA UNDERGROUND WATER MAIN (QL A)
- WMB UNDERGROUND WATER MAIN (QL B)
- WMC UNDERGROUND WATER MAIN (QL C)
- WMD UNDERGROUND WATER MAIN (QL D)
- SWM STORMWATER PIPE (QL A)
- MINOR CONTOUR LINE
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- WM WATER METER
- MISC MISC PIT
- CMK COMMS MARKER
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PHOTO 23

FOR CONTINUATION - REFER SHEET 14

FOR CONTINUATION - REFER SHEET 17

202  
D.P.590247

ver.	date	comment	surveyed	drawn	checked	pm	co-ordinate information	level information	scale (A1 original size)	page
A	17.09.18	INITIAL ISSUE: DET-001 & DET-002 PREVIOUS PLANS COMBINED	DK	AE	CG	CM	CO-ORDINATE SYSTEM: MGA 56 ORIGIN OF CO-ORDINATES: P.M.30963 DATE OF SURVEY: 07.09.18	DATUM: AHD ORIGIN OF LEVELS: P.M.30963 CONTOUR INTERVAL: 0.5m	0 12.5 25.0m SCALE: 1:500 (FULL)	15 OF 21

WARNING OPTICAL FIBRE IN AREA

WARNING UNDERGROUND ELECTRICITY LINES

DIAL 1100 BEFORE YOU DIG

drawing title:  
**DETAIL & CONTOUR SURVEY OVER PART OF LOT 201 & 202 D.P.590247 & LOT 21 D.P.581462**

location: 15 MENANGLE ROAD & 1370 MORETON PARK RD, MENANGLE

council: WOLLONDILLY SHIRE

dwg ref: 300058-DET-003-A

client:

**mirvac**

**adw johnson**

central coast office ph: (02) 4305 4300  
 hunter office ph: (02) 4978 5100  
 sydney office ph: (02) 8046 7411

www.adwjohnson.com.au



PHOTO 24



PHOTO 25

SUBSURFACE UTILITY INVESTIGATION (SUI) QUALITY LEVEL LABELLING UTILITY INFORMATION BY A CLASSIFICATION CODE ALLOWS THE USER OF THIS INFORMATION TO UNDERSTAND CLEARLY HOW THE INFORMATION WAS COLLECTED AND THEN PLACE AN APPROPRIATE AMOUNT OF RELIANCE ON IT. PROJECT RISKS RELATED TO UNDERGROUND UTILITIES CAN THEN BE PROPERLY MANAGED.

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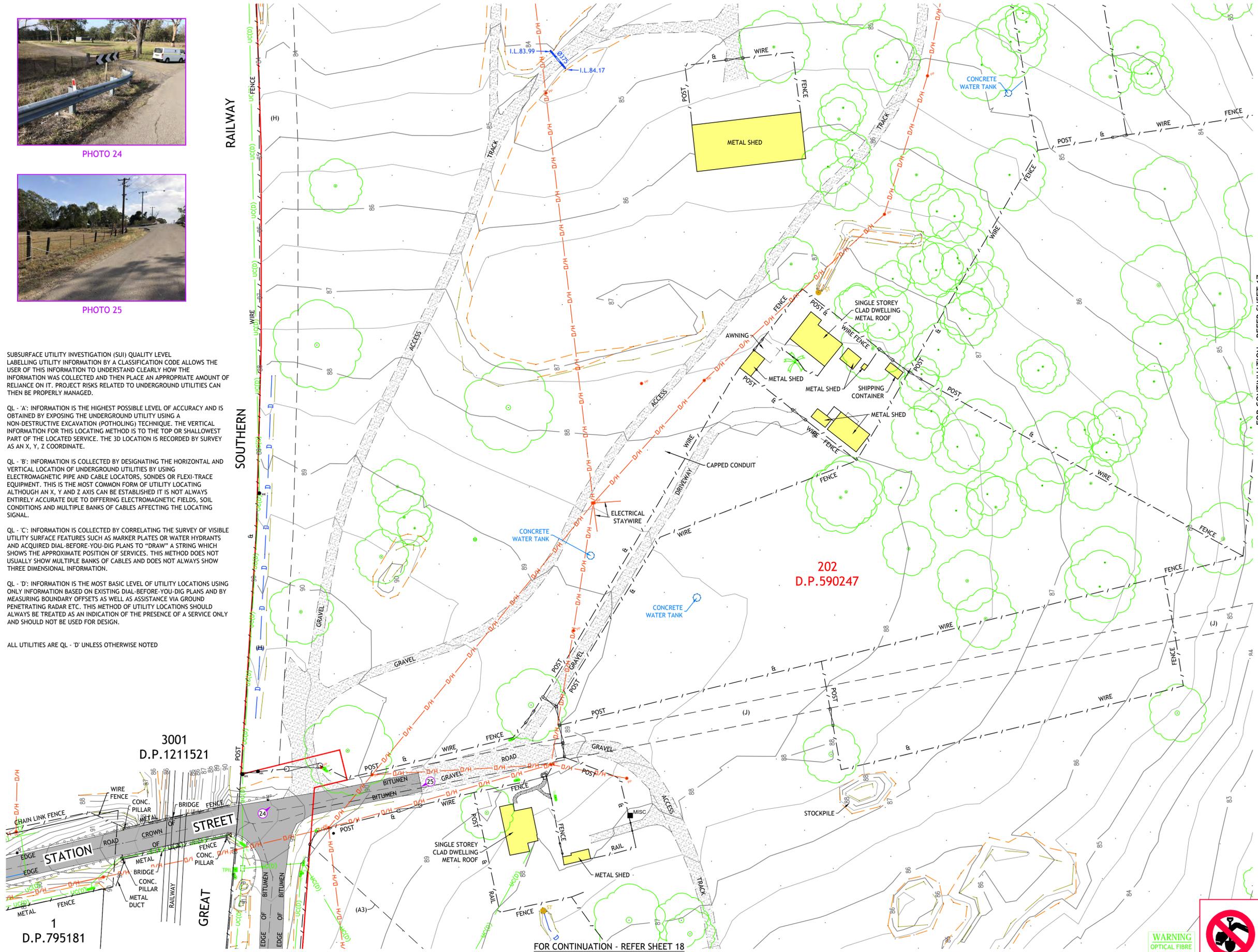
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Plotfile: Patrick Buscombe Plot Date: 18/09/2018 Cod File: S:\300058 Drawings\Survey\DETAILS\300058-DET-003-A.dwg This plan includes coloured information. If you have a black and white copy you do not have all of the information. This note is coloured RED.



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- SHRUB
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- SL STREET LIGHT
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- SV STOP VALVE
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- SIP - SURFACE INLET PIT
- TEL TELSTRA/COMMS PIT
- GATE
- DRAINAGE LINE
- FENCE LINE
- OVERHEAD ELECTRICAL LINE
- UNDERGROUND ELECTRICITY (QL B)
- UNDERGROUND ELECTRICITY (QL C)
- UNDERGROUND ELECTRICITY (QL D)
- ELECTRICAL MARKER
- UNDERGROUND COMMS (QL B)
- UNDERGROUND COMMS (QL C)
- UNDERGROUND COMMS (QL D)
- UNDERGROUND WATER MAIN (QL A)
- UNDERGROUND WATER MAIN (QL B)
- UNDERGROUND WATER MAIN (QL C)
- UNDERGROUND WATER MAIN (QL D)
- STORMWATER PIPE (QL A)
- MINOR CONTOUR LINE
- MAJOR CONTOUR LINE
- BOUNDARY LINE
- BOUNDARY ADJOINING APPROX.
- TOP OF BANKS
- TOE OF BANKS
- SCRUB LINE
- EDGE OF GARDEN
- PHOTOGRAPH DIRECTION
- TPIL TELSTRA PILLAR
- ST SEPTIC TANK
- SMS SEWER MAINTENANCE SHAFT
- SMH SEWER MAN HOLE
- WM WATER METER
- MISC MISC PIT
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(A3) EASEMENT FOR PIPELINE PURPOSES OVER EXISTING LINE OF PIPES (DP595674)  
 (H) RIGHT OF CARRIAGEWAY 10.06 WIDE & VARIABLE (H860443)  
 (J) EASEMENT FOR PIPELINE 6 WIDE (DP595674)



working beyond expectations

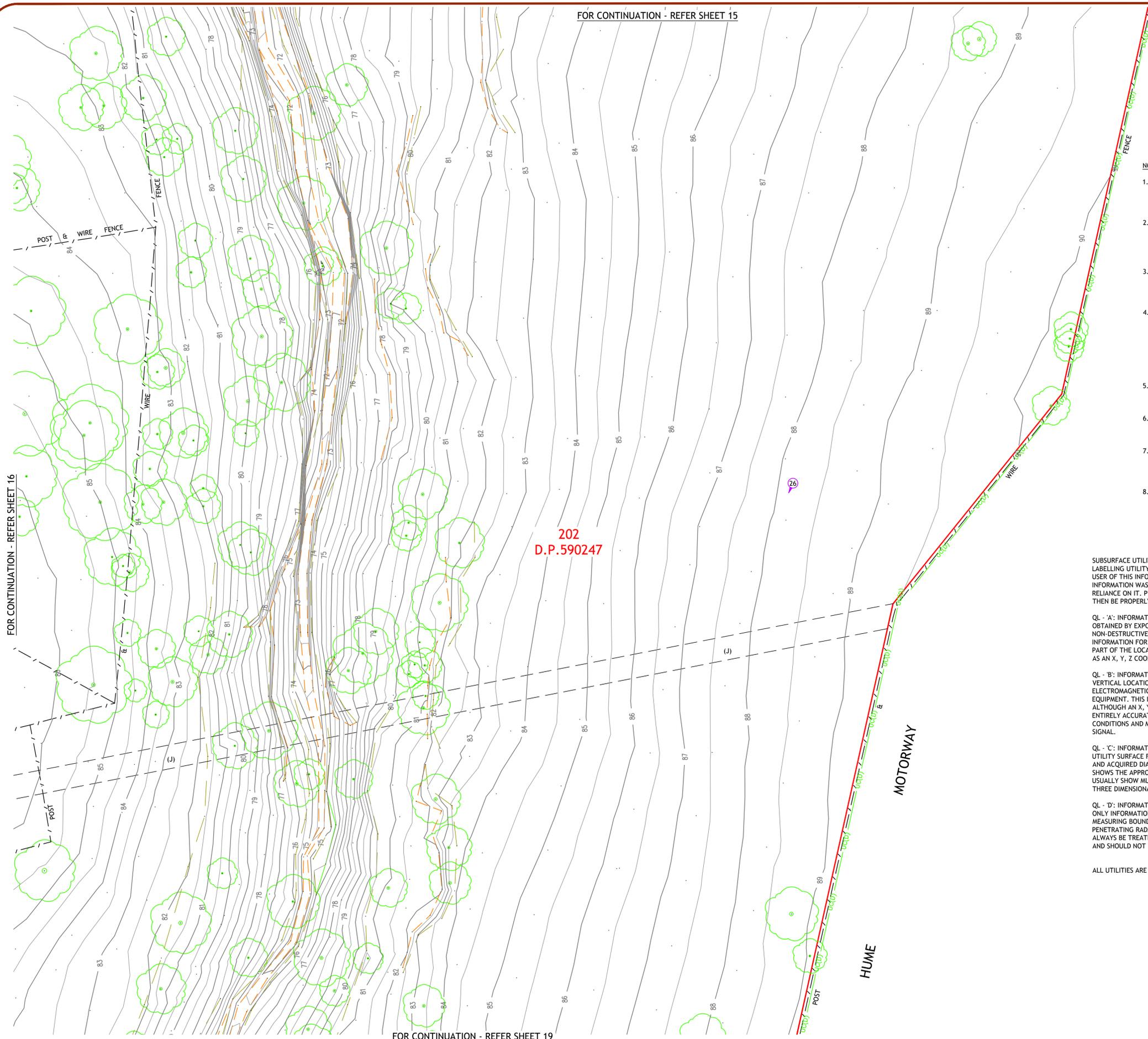


PHOTO 26

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- UNDERGROUND COMMS (QL B)
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FOR CONTINUATION - REFER SHEET 16

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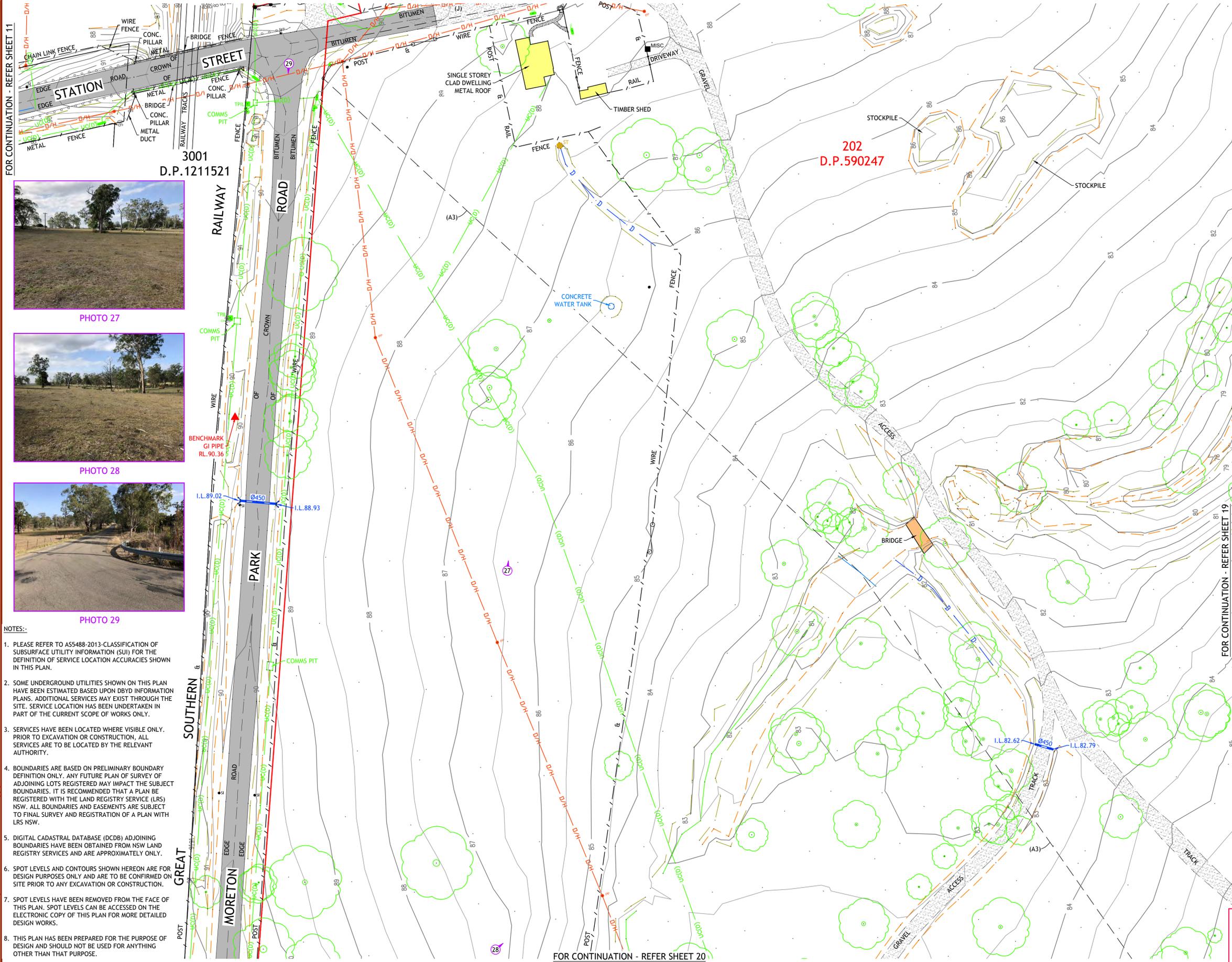
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Plotted By: Patrick Buscombe Plot Date: 18/09/2018 Cad File: S:\300058 Drawings\Survey\DETAILS\300058-DET-003-A.dwg  
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PHOTO 27



PHOTO 28



PHOTO 29

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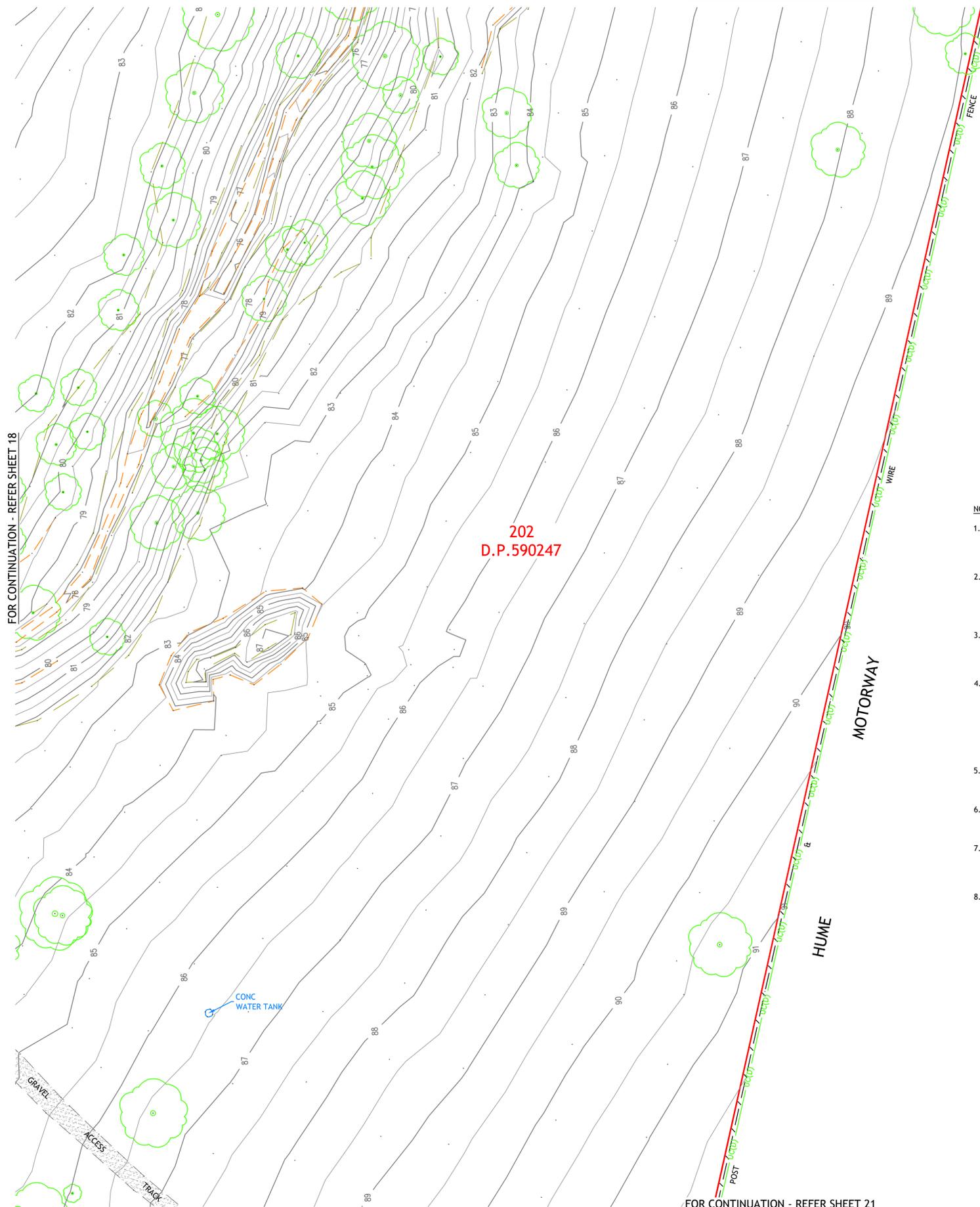
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- KIP - KERB INLET PIT
- SIP - SURFACE INLET PIT
- TEL TELSTRA/COMMS PIT
- GATE
- DRAINAGE LINE
- FENCE LINE
- OVERHEAD ELECTRICAL LINE
- UNDERGROUND ELECTRICITY (QL B)
- UNDERGROUND ELECTRICITY (QL C)
- UNDERGROUND ELECTRICITY (QL D)
- EMK ELECTRICAL MARKER
- UNDERGROUND COMMS (QL B)
- UNDERGROUND COMMS (QL C)
- UNDERGROUND COMMS (QL D)
- UNDERGROUND WATER MAIN (QL A)
- UNDERGROUND WATER MAIN (QL B)
- UNDERGROUND WATER MAIN (QL C)
- UNDERGROUND WATER MAIN (QL D)
- STORMWATER PIPE (QL A)
- MINOR CONTOUR LINE
- MAJOR CONTOUR LINE
- BOUNDARY LINE
- BOUNDARY ADJOINING APPROX.
- TOP OF BANKS
- TOE OF BANKS
- SCRUB LINE
- EDGE OF GARDEN
- PHOTOGRAPH DIRECTION
- TPIL TELSTRA PILLAR
- ST SEPTIC TANK
- SMS SEWER MAINTENANCE SHAFT
- SMH SEWER MAN HOLE
- WM WATER METER
- MISC MISC PIT
- CMK COMMS MARKER
- MK MISC CABLE MARKER



Plotfile: Patrick Buscombe Plot Date: 18/09/2018 Cad File: S:\300058 Drawings\Survey\DETAILS\300058-DET-003-A.dwg  
 This plan includes coloured information. If you have a black and white copy, you do not have all of the information. This note is coloured RED.



DIAL 1100 BEFORE YOU DIG

ver.	date	comment	surveyed	drawn	checked	pm	co-ordinate information	level information	scale (A1 original size)	page
A	17.09.18	INITIAL ISSUE: DET-001 & DET-002 PREVIOUS PLANS COMBINED	DK	AE	CG	CM	CO-ORDINATE SYSTEM: MGA 56 ORIGIN OF CO-ORDINATES: P.M.30963 DATE OF SURVEY: 07.09.18	DATUM: AHD ORIGIN OF LEVELS: P.M.30963 CONTOUR INTERVAL: 0.5m	0 12.5 25.0m SCALE: 1:500 (FULL)	19 OF 21

- project management
- civil engineering
- infrastructure
- superintendency
- economic analysis
- social impact
- town planning
- surveying
- development feasibility
- visualisation
- urban design

drawing title:  
**DETAIL & CONTOUR SURVEY OVER PART OF LOT 201 & 202 D.P.590247 & LOT 21 D.P.581462**

location: 15 MENANGLE ROAD & 1370 MORETON PARK RD, MENANGLE

council: WOLLONDILLY SHIRE

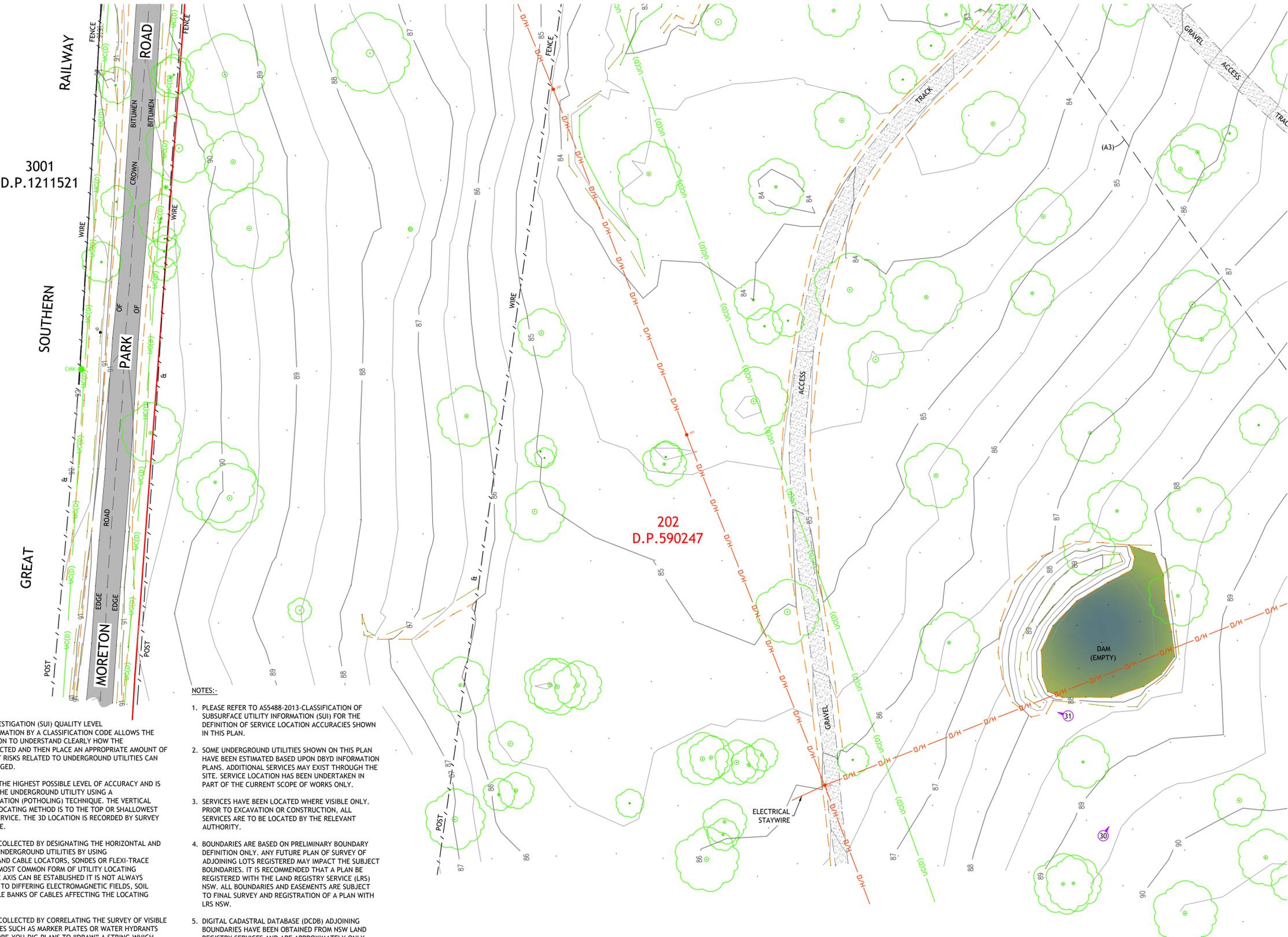
dwg ref: 300058-DET-003-A

client:

central coast office ph: (02) 4305 4300  
 hunter office ph: (02) 4978 5100  
 sydney office ph: (02) 8046 7411

www.adwjohanson.com.au

working beyond expectations



**LEGEND**

- PM PERMANENT MARK
- SHRUB
- PALM TREE
- TREE
- H:HEIGHT
- D:DIAMETER
- S:SPREAD
- SI SIGN
- LP LIGHT POLE
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PHOTO 30



PHOTO 31

NOTES:-

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- SOME UNDERGROUND UTILITIES SHOWN ON THIS PLAN HAVE BEEN ESTIMATED BASED UPON DBYD INFORMATION PLANS. ADDITIONAL SERVICES MAY EXIST THROUGH THE SITE. SERVICE LOCATION HAS BEEN UNDERTAKEN IN PART OF THE CURRENT SCOPE OF WORKS ONLY.
- SERVICES HAVE BEEN LOCATED WHERE VISIBLE ONLY. PRIOR TO EXCAVATION OR CONSTRUCTION, ALL SERVICES ARE TO BE LOCATED BY THE RELEVANT AUTHORITY.
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(A3) EASEMENT FOR PIPELINE PURPOSES OVER EXISTING LINE OF PIPES (DP595674)

SUBSURFACE UTILITY INVESTIGATION (SUI) QUALITY LEVEL LABELLING UTILITY INFORMATION BY A CLASSIFICATION CODE ALLOWS THE USER OF THIS INFORMATION TO UNDERSTAND CLEARLY HOW THE INFORMATION WAS COLLECTED AND THEN PLACE AN APPROPRIATE AMOUNT OF RELIANCE ON IT. PROJECT RISKS RELATED TO UNDERGROUND UTILITIES CAN THEN BE PROPERLY MANAGED.

QL - 'A': INFORMATION IS THE HIGHEST POSSIBLE LEVEL OF ACCURACY AND IS OBTAINED BY EXPOSING THE UNDERGROUND UTILITY USING A NON-DESTRUCTIVE EXCAVATION (POTHOLING) TECHNIQUE. THE VERTICAL INFORMATION FOR THIS LOCATING METHOD IS TO THE TOP OR SHALLOWEST PART OF THE LOCATED SERVICE. THE 3D LOCATION IS RECORDED BY SURVEY AS AN X, Y, Z COORDINATE.

QL - 'B': INFORMATION IS COLLECTED BY DESIGNATING THE HORIZONTAL AND VERTICAL LOCATION OF UNDERGROUND UTILITIES BY USING ELECTROMAGNETIC PIPE AND CABLE LOCATORS, SONDES OR FLEXI-TRACE EQUIPMENT. THIS IS THE MOST COMMON FORM OF UTILITY LOCATING ALTHOUGH AN X, Y AND Z AXIS CAN BE ESTABLISHED IT IS NOT ALWAYS ENTIRELY ACCURATE DUE TO DIFFERING ELECTROMAGNETIC FIELDS, SOIL CONDITIONS AND MULTIPLE BANKS OF CABLES AFFECTING THE LOCATING SIGNAL.

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QL - 'D': INFORMATION IS THE MOST BASIC LEVEL OF UTILITY LOCATIONS USING ONLY INFORMATION BASED ON EXISTING DIAL-BEFORE-YOU-DIG PLANS AND BY MEASURING BOUNDARY OFFSETS AS WELL AS ASSISTANCE VIA GROUND PENETRATING RADAR ETC. THIS METHOD OF UTILITY LOCATIONS SHOULD ALWAYS BE TREATED AS AN INDICATION OF THE PRESENCE OF A SERVICE ONLY AND SHOULD NOT BE USED FOR DESIGN.

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**WARNING**  
OPTICAL FIBRE  
IN AREA

**WARNING**  
UNDERGROUND  
ELECTRICITY LINES

**DIAL 1100**  
BEFORE YOU DIG

drawing title:  
**DETAIL & CONTOUR  
SURVEY OVER PART OF  
LOT 201 & 202 D.P.590247  
& LOT 21 D.P.581462**

location: 15 MENANGLE ROAD & 1370  
MORETON PARK RD,  
MENANGLE

council: WOLLONDILLY SHIRE

dwg ref: 300058-DET-003-A

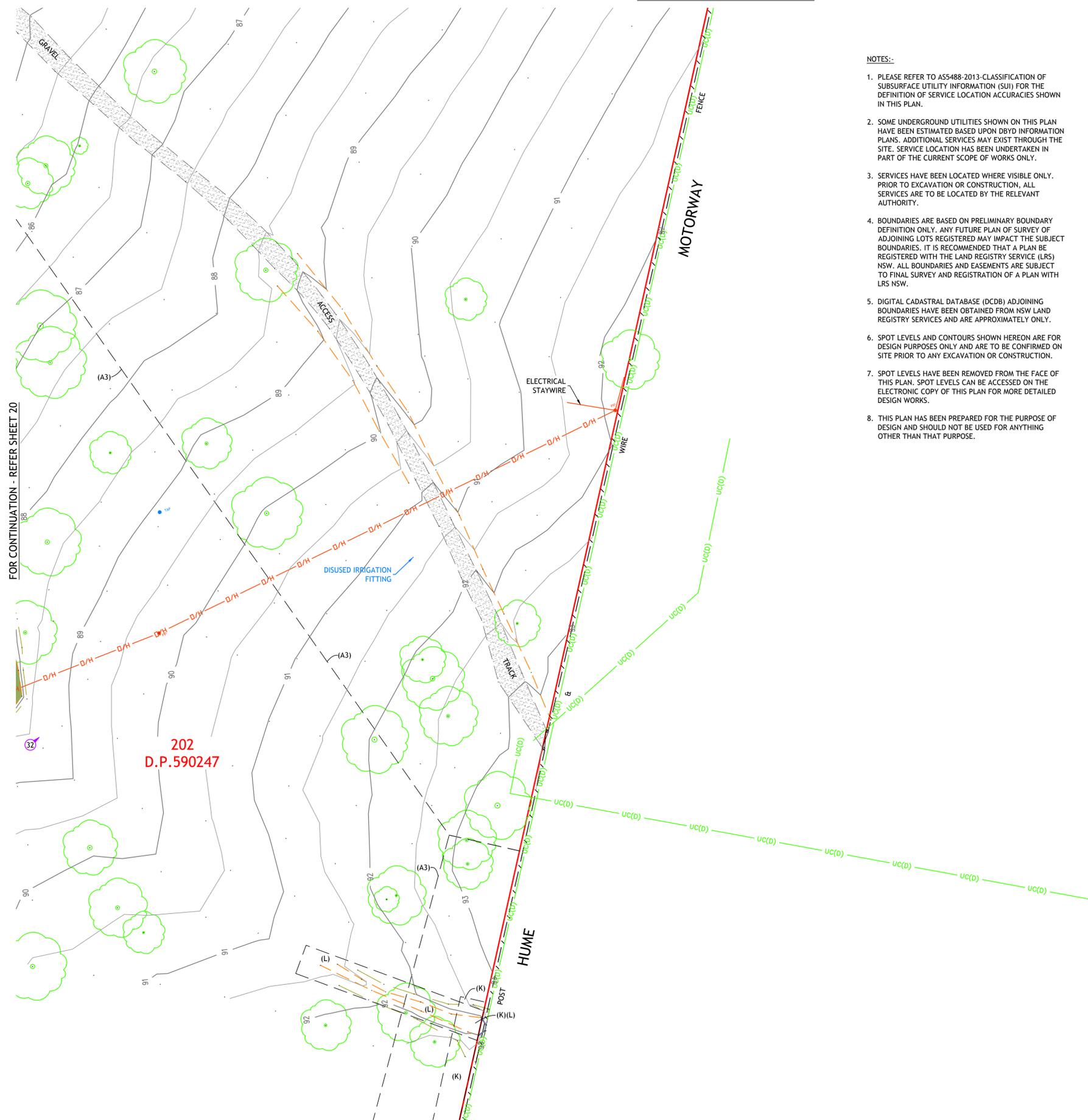
client:

**mirvac**

central coast office ph: (02) 4305 4300  
hunter office ph: (02) 4978 5100  
sydney office ph: (02) 8046 7411

**adw johnson**

www.adwjohanson.com.au



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- TREE
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PHOTO 32

WARNING  
OPTICAL FIBRE  
IN AREA

WARNING  
UNDERGROUND  
ELECTRICITY LINES



drawing title:  
**DETAIL & CONTOUR SURVEY OVER PART OF LOT 201 & 202 D.P.590247 & LOT 21 D.P.581462**

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