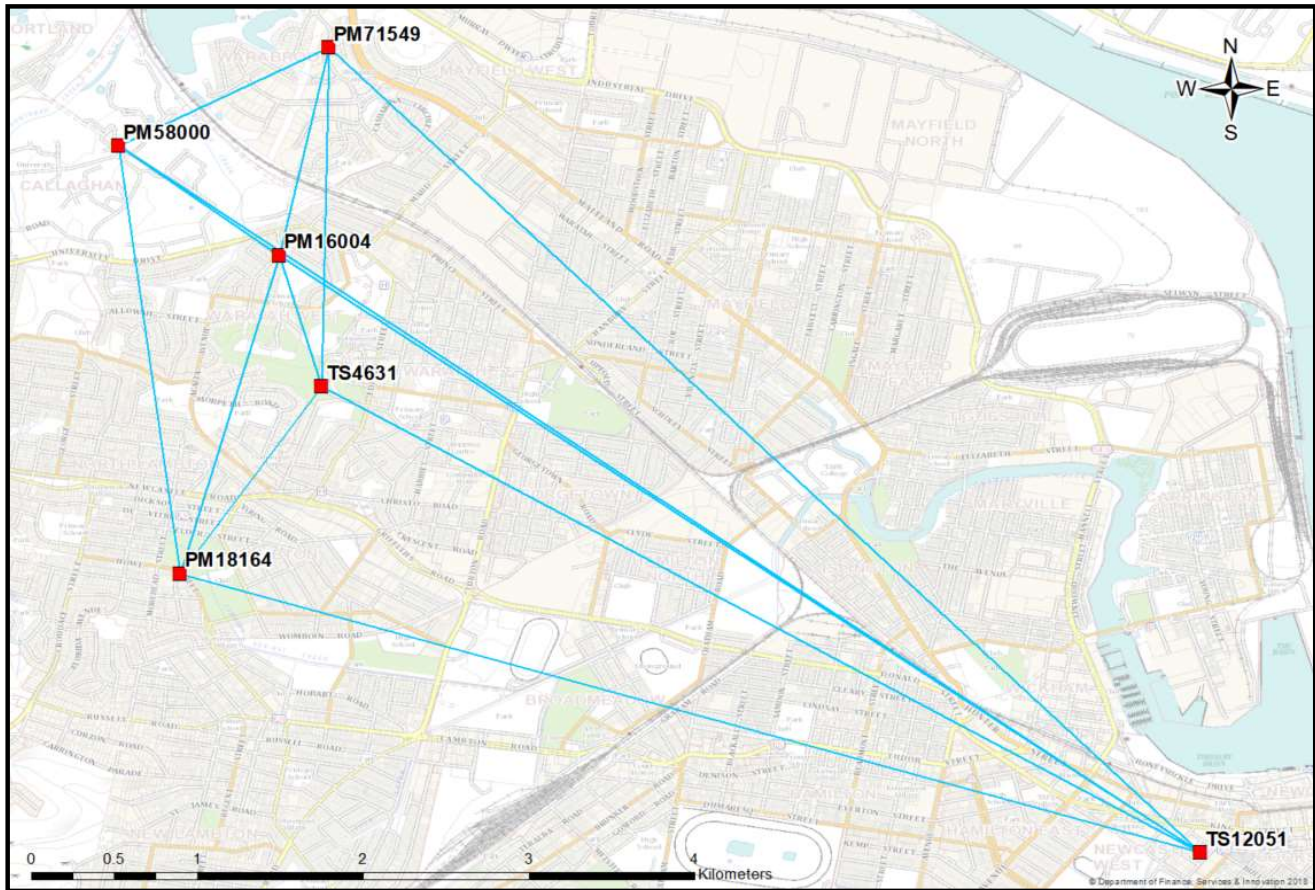


Newcastle



Station	MGA2020 - Zone 56		Height		
	Easting (m)	Northing (m)	Ellipsoid (m)	Geoid (m)	Derived AHD (m)
PM16004	379846.622	6359443.088	47.570	25.840	21.730
PM18164	379366.079	6357489.590	42.378	25.794	16.584
PM71549	380083.169	6360717.831	50.169	25.872	24.297
TS12051 (Newcastle CORS)	384558.017	6355844.194	52.857	25.709	27.148
TS4631	380069.323	6358642.477	103.391	25.818	77.573
TS58000	379021.827	6360101.644	52.286	25.862	26.425

Warning!

Coordinates are to be used for GNSS validation only.

Values differ from those published in SCIMS.

NSW GNSS TEST NETWORK:

Newcastle

Network Information

The Newcastle GNSS Test Network has been derived through a 3 dimensional minimally constrained least squares adjustment holding constrained TS12051 (Newcastle CORS). The adjustment was run on 28/01/2020.

TS12051 coordinates (Latitude, Longitude and Elevation above Ellipsoid) have been sourced from the GDA2020 Regulation 13 Certificate.

GDA2020

SCIMS ID & (Name)	Latitude	Longitude	Ellipsoid Height (m)	Date
TS12051 (Newcastle CORS)	S 32° 55' 46.46567"	E 151° 45' 54.84041"	52.857	28/01/2020

MGA2020

SCIMS ID & (Name)	Easting (m)	Northing (m)	Ellipsoid Height (m)	Date
TS12051 (Newcastle CORS)	384558.017	6355844.194	52.857	28/01/2020

Adjustment Observation Weightings

Horizontal 5mm + 0.7ppm and 0.0015/0.0015 Centring

Vertical 15mm + 2.0ppm and 0.002/0.002 Centring

Geoid / Ellipsoid Separation (N)

Source: **AUSGEOID2020** (Date: 28/01/2020)

Notes

For an accurate comparison, observe the network shown and run a minimally constrained least squares adjustment as detailed above.

Contact a representative from DCS Spatial Services if further information/clarification is required or to report any mark disturbance or significant differences in results.

No Positional or Local Uncertainty has been determined.

PM16004

Photos:



Sketch:

Survey Co-ordination Act, 1949.

PM No. 16004
SSM No. _____
S.C. _____

LOCALITY SKETCH PLAN
(To be drawn in black waterproof ink, or HB pencil, not necessarily to scale.)

Parish Newcastle County Northumberland City or Town Warrington
Municipality or Shire Newcastle Survey Area Warrington ABORGANG IS 14057
Zone 8 Map Sheet NEWCASTLE 9232 Aerial Photograph N.S.W. VIII

NOTE - Measurements are to be shown from the mark to as many nearby survey marks, buildings, fence posts, kerbs, etc., as practicable. Up to six measurements are desirable.

Measurements are in feet

Water Board Easement for Pipeline

DELAUNEY SQ.

36.2

20.3

7.6

5.00

66.0 ft "N 0° 4"

66.0 ft "N 31°"

Mark last inspected _____
Placed in connection with (type of survey or work) _____
Co-ordinate values of mark _____
Projection _____ Origin _____
Reduced level of mark _____ feet (1929) _____ Jo Datum _____ Standard _____
Inspection Book No. _____ Fol. 72
Site selected by A. R. Graham
Mark placed by F. S. 1941/70 Date 22/4/11
Locality sketch drawn by A. R. Graham Date 22/4/11
Locality sketch put into use by A. R. Graham Date _____

PROVISIONAL SKETCH ONLY

A. Ellmally
Officer-in-Charge
Survey Co-ordination Branch
- 8 MAY 1972

PM No. 16004
SSM No. _____

PM18164

Photos:



Sketch:

LOCALITY SKETCH PLAN

Local Government Area NEWCASTLE

Town/Suburb/Locality LAMBTON

Approx MGA Coordinate: Zone 56

E: 379365

N: 6357489

Description of Mark PM 18164 Large Metal Box

s/s pin set in grass

PM18164

LAMBTON PARK

HOWE STREET

CHURCH ST

BRICK UNITS N°47

BK & TILE RES N°43

CONCRETE DRIVE

garden

SV 245m GT

88m 2.9

97m 10.8

205m 2.3

Code 001

Code 002

Code 003

Code 004

Code 005

Code 006

Code 007

Code 008

Code 009

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Code 011

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PM58000

Photos:



Sketch:



PM 58000
SSM
M&M

LOCALITY SKETCH PLAN

Parish NEWCASTLE County NORTHumberland City or Town NEWCASTLE
Municipality or Shire NEWCASTLE CITY C.M.A. Map Sheet KERRING 1:50,000

Measurements are in metres Zone 56/1

THE UNIVERSITY OF NEWCASTLE

NEWCASTLE REGIONAL CENTRE

PM 58000 (P) RL 26.446 AHD
PM 58001 (P) RL 24.693 AHD

PM 58002 (P) RL 17.410 AHD

PM 58003 (P) RL 15.761 AHD

Resolved distances by Crown Lands Office, March 1983.
Uncertainty Level ± 2 mm.


DISTANCES AT MEAN ELEVATION

FROM	TO	DISTANCE
PM 58000	PM 58001	42.188
PM 58000	PM 58002	385.306
PM 58000	PM 58003	611.091
PM 58001	PM 58002	343.118
PM 58001	PM 58003	568.903
PM 58002	PM 58003	225.785

ORIGINAL
4024

Organization placing Marks S.C.B. Ref.
Mark placed / / 19
Note: Replaces PM
Locality Sketch Book No. Fol.
Plan Register noted / / 19

PM 58000
SSM
M&M

I certify that the Mark or Marks have been placed and numbered as detailed hereon.

Designation Surveyor
Date 26/7/1984

S.N. 5019 D. West, Government Printer

PM71549

Photos:



Sketch:

LOCALITY SKETCH PLAN PM 71549
SSM

D.P. 806784 Description STEEL PIN

Parish NEWCASTLE County NORTHUMBERLAND Town/Suburb/Locality WARABROOK
Municipality or Shire NEWCASTLE C.M.A. Map Sheet KODJAKANG ISLAND VIII
08351

LOT 25
LOT 26
LOT 29
LOT 5

ANGOPHORA DRIVE
VIOLA WAY
THRESHOLD
GULLY PIT
ELECTRICITY SUBSTATION
APPROX COORDS
387076.464
1359791.315

ORIGINAL

SURVEY PRACTICE REGULATION 1990

MARK	AND	SOURCE	DATE
PM 71549	24.282	SMITH	3.11.90

HEIGHT DETERMINED BY DIFF. LEVELLING (specify) ADJ. SIGHTING

ADOPTED MARKS

PM 14441	25.713	SCIMS	15.11.90
PM 16478	25.333	SCIMS	15.11.90

Measurements are in metres

I certify that the Mark or Marks have been placed and numbered as detailed herein.

Signed Tom Down
Mark placed 21/11/1990

Replaces PM _____ Organization placing Marks PALMER BROWN + PARKER
SSM _____ Ref. S. 234 B. 5. 11. 90

TS4631

Photos:



Sketch:

Department of Lands

Reconnaissance and Maintenance Report 7634

Station

WARATAH (P) TS 4631

This Trig. Station has been-

Note: Cross out word or words which do not apply

1. Completely cleared to permit 360° vision to surrounding Trigs. ✓

2. Cleared by lines bearing..... from Trig. Mast.....

3. Trig. Mast & Vanes have been painted white & black respectively. ✓

4. The Trig. was unpiled/....., dimensions now being:

Description of mark: Concrete Pillar..... should be noticed, e.g. Steel plug, Brass plug, Bulb, Concrete Pillar

Height of mark..... m above..... G.L. 0.60

Height of Top Vane to Top of Mast..... m Diameter of Vane (vertical)..... m.

Height of Mast..... m. Diameter of Mast..... m.

Length of Mast..... m. (approximate if not unpiled)

5. A 100mm set in conc./soil has been placed Id. 0.63 m. bearing.....°M from Trig. Mast/pillar

6. A B.T. set in conc./soil has been placed Id. 210°M m. bearing.....°M from Trig. Mast/pillar

7. A..... set in conc./soil has been placed Id. m. bearing.....°M from Trig. Mast/pillar

8. A..... set in conc./rock has been placed Id. m. bearing.....°M from Trig. Mast/pillar

9. Connection 100mm to B.T...... m. bearing.....°M

10. Connection..... to..... m. bearing.....°M

11. Connection..... to..... m. bearing.....°M

12. Connection..... to..... m. bearing.....°M

13. Diff. Ht. Top of 100mm is 1.735 m. above 1010444

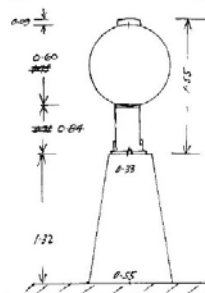
14. Diff. Ht. Top of 100mm is 1.739 m. above 1010444

15. Diff. Ht. Top of 100mm is 1.66 m. above B.T.

16. Diff. Ht. Top of 100mm is 1.740 m. above 1010444

Prepared by: C. H. H. H. H. Checked: C. H. H. H. H.

Sketch of 0.6 m 200mm pillar plate



Record of Station

Date: 17.2.78 Cont. 100mm moved over 1010444

[illegible]