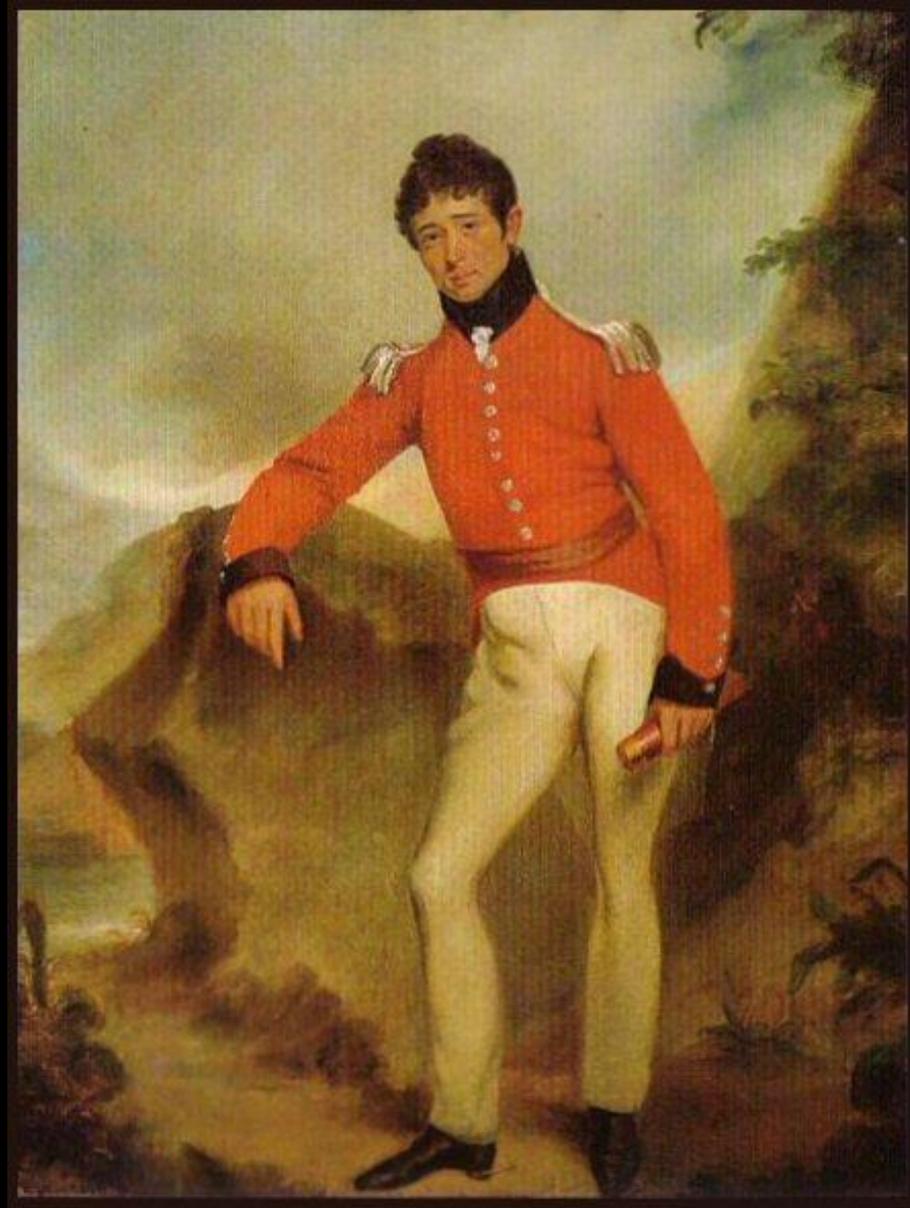


# Light Years Ahead:

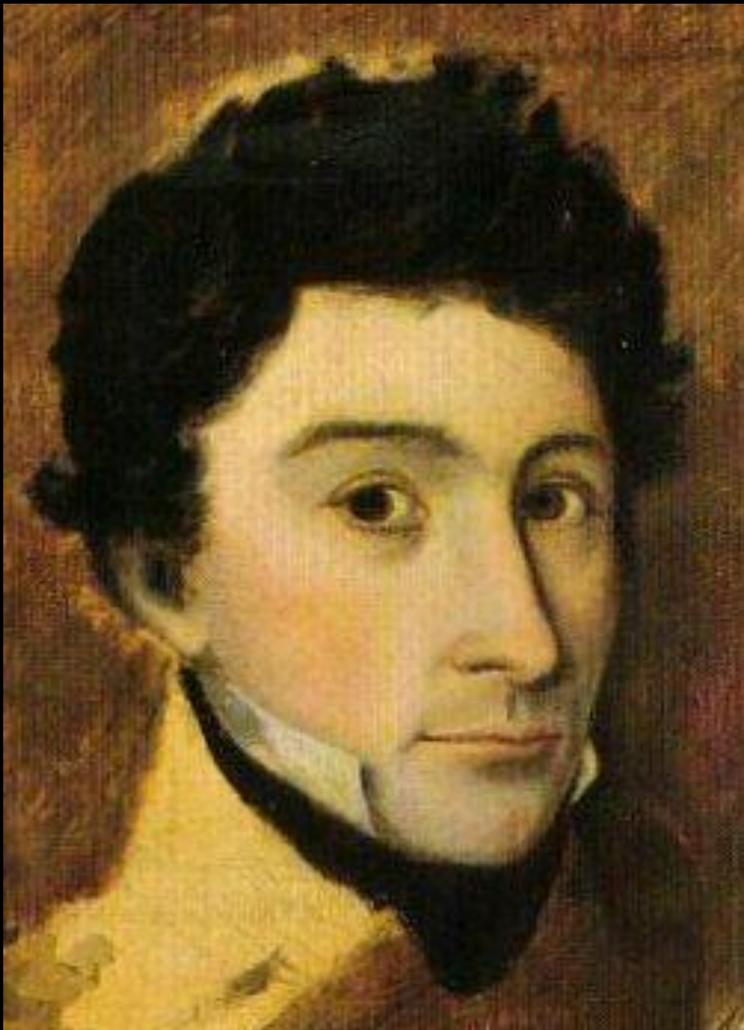
Presented at the FIG Working Week 2016,  
May 2-6, 2016 in Christchurch, New Zealand

The role of  
design, survey and  
land management  
in disaster risk  
management,  
future proofing  
Adelaide

Kelly Henderson  
khenderson002@gmail.com



**LIGHT**, Colonel William, Australia, 1786–1839  
**Self portrait**, c.1815 Britain, Oil on canvas on board, 83.8 x 61.8 cm  
Art Gallery of South Australia, Adelaide; 866P21



*Colonel William Light*

# William LIGHT

**born 27 April 1786**

(Kualah Kedah, Malaya)

**died 6 October 1839**

(Adelaide, South Australia)

Sailor, soldier,  
linguist, artist, musician and  
mechanist, and good in all

# DISASTER RISK MANAGEMENT

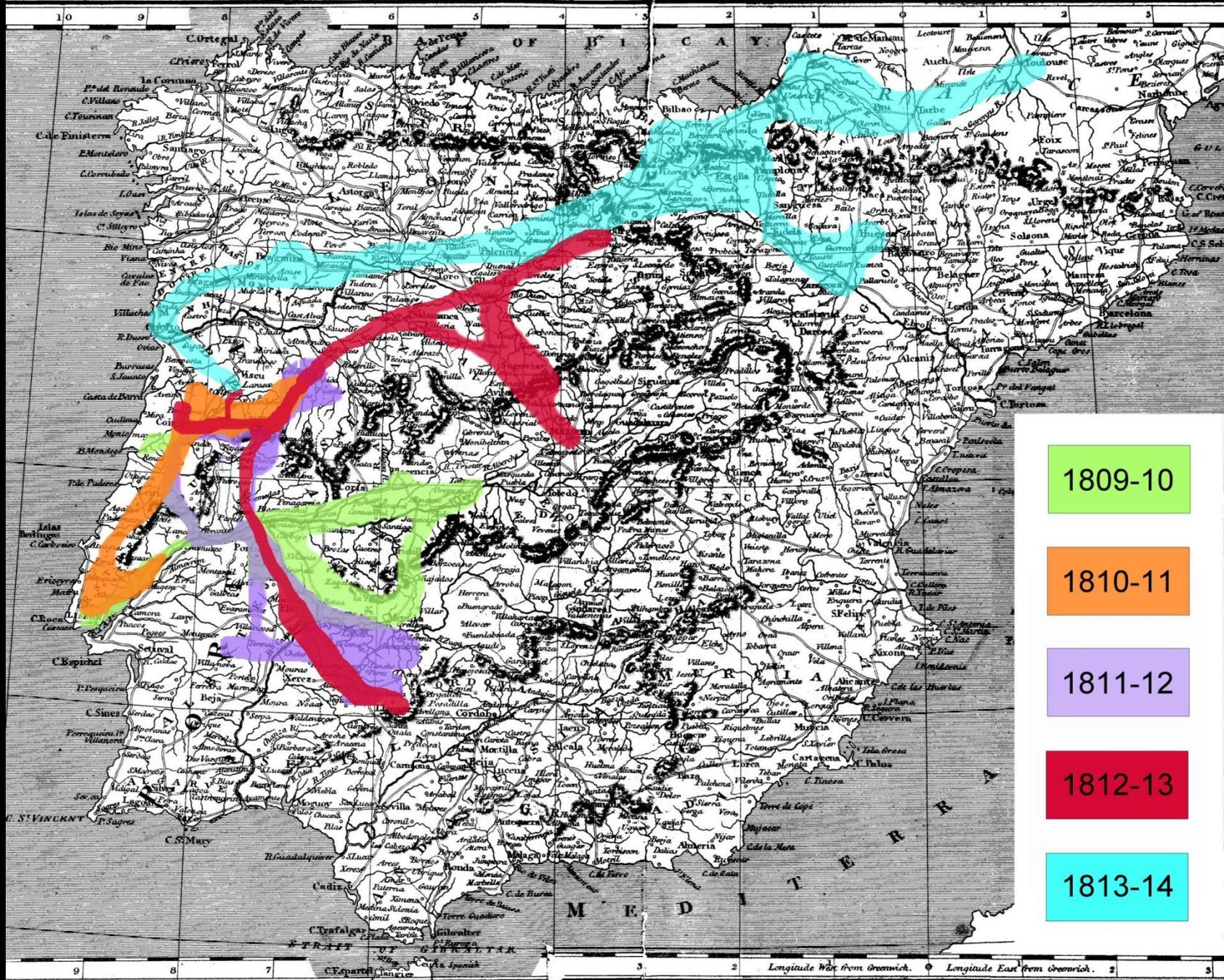
*An ounce of prevention  
worth a pound of cure*

EXPERIENCE

OBSERVATION

INTELLIGENT INDEPENDENT  
INFORMATION-BASED PLANNING





'Light Years Ahead: The role of design, survey and land management in disaster risk management, future proofing Adelaide' FIG Working Week 2016 'Recovery from Disaster', Christchurch, New Zealand, 4 May 2016

# Montemor-o-Velho and the Mondego River, Portugal



# Adelaide and the River Torrens, South Australia

# Douro River Valley



# Madrid



# Tordesillas



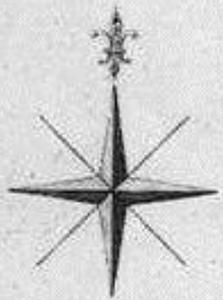
# Salamanca



PLAN  
of the City of  
WASHINGTON.



George Town



Lat. Capitol 38: 53, N.  
Long: 0: 0.

POTOMAC RIVER

EASTERN BRANCH

Capitol

President's House

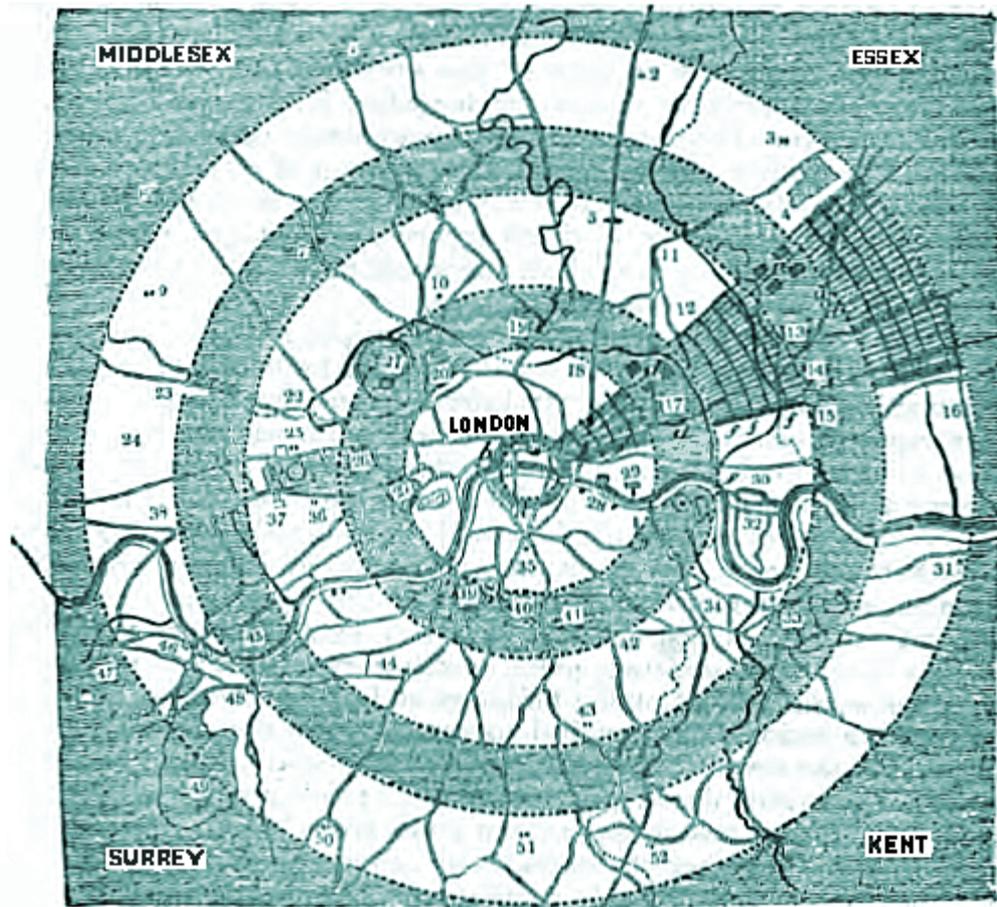
Rocky Branch

Other Creek

Milner & Johnson J.

# John Claudius LOUDON, c1829

## *Breathing Hints for the Metropolis*



- |   |                              |                              |
|---|------------------------------|------------------------------|
| 1. Finchley Common; in the zone of country. | 17. Bethnal Green; country.  | 35. Walworth; town.          |
| 2. Tottenham; in the zone of town.          | 18. Hoxton; town.            | 36. Brompton; town.          |
| 3. Walthamstow; town.                       | 19. Islington; country.      | 37. Kensington; town.        |
| 4. Forrest House; town.                     | 20. Somers Town; country.    | 38. Hammersmith; town.       |
| 5. Stoke Newington; town.                   | 21. Regent's Park; country.  | 39. Lambeth; country.        |
| 6. Highgate; country.                       | 22. Paddington; town.        | 40. Kennington; country.     |
| 7. Hampstead; country.                      | 23. Paddington canal; town.  | 41. Camberwell; country.     |
| 8. Kingsbury; country.                      | 24. Six Elms; town.          | 42. Peckham; town.           |
| 9. Wilsdon; town.                           | 25. Bayswater; town.         | 43. Dulwich; town.           |
| 10. Kentish Town; town.                     | 26. Hyde Park; country.      | 44. Clapham; town.           |
| 11. Clapton; town.                          | 27. Green Park; country.     | 45. Fulham; country.         |
| 12. Hammersmith; town.                      | 28. Southwark; town.         | 46. Putney; town.            |
| 13. Stratford; country.                     | 29. London Docks; town.      | 47. Roehampton; country.     |
| 14. West Ham; country.                      | 30. West India Docks; town.  | 48. Wandsworth; town.        |
| 15. West Ham Abbey; country.                | 31. Woolwich; town.          | 49. Wimbledon Park; country. |
| 16. East Ham; town.                         | 32. Isle of Dogs; town.      | 50. Tooting; town.           |
|   | 33. Greenwich Park; country. | 51. Norwood; town.           |
|   | 34. Deptford; town.          | 52. Sydenham; town.          |

# Plan of The City of Adelaide, South Australia 1837

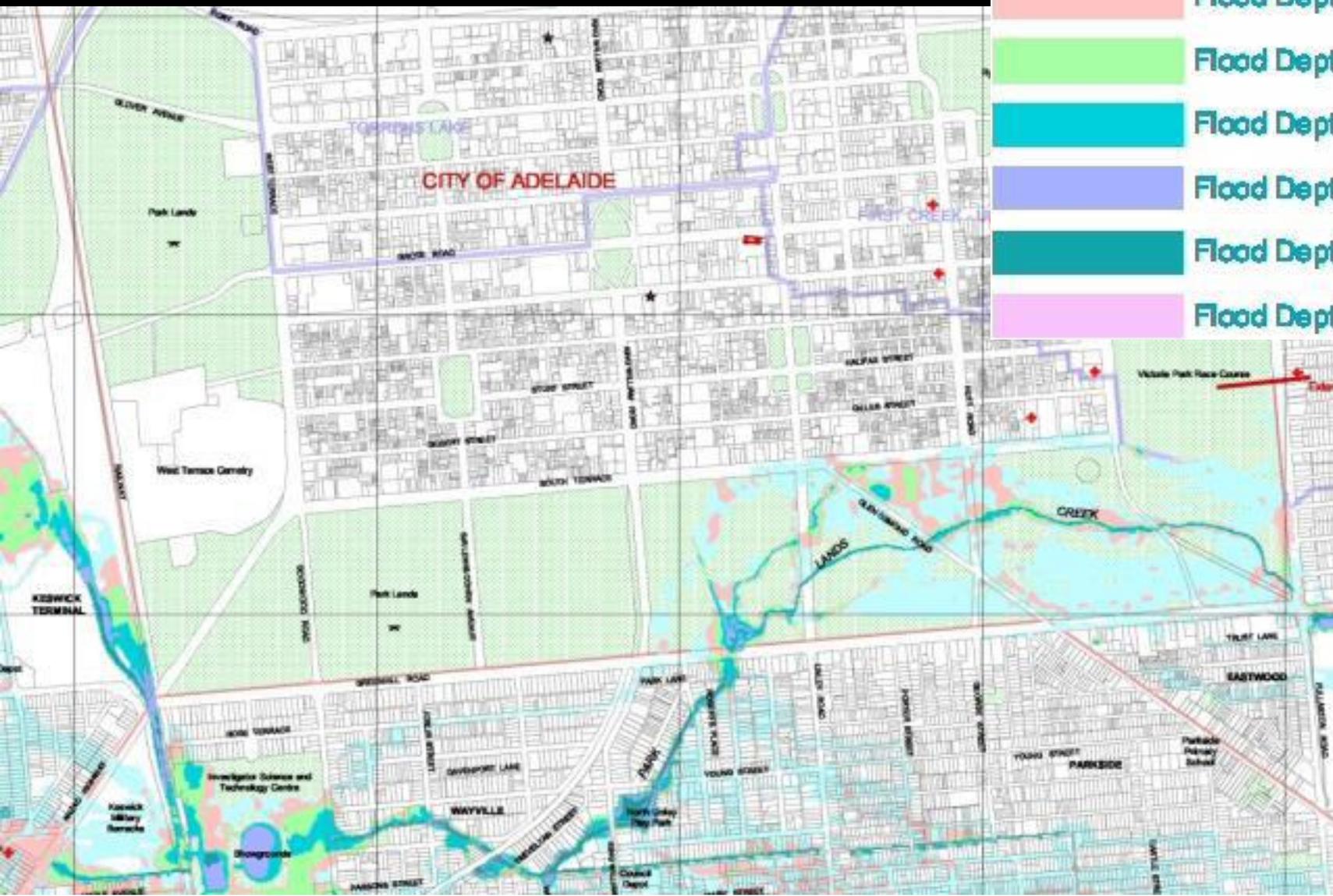
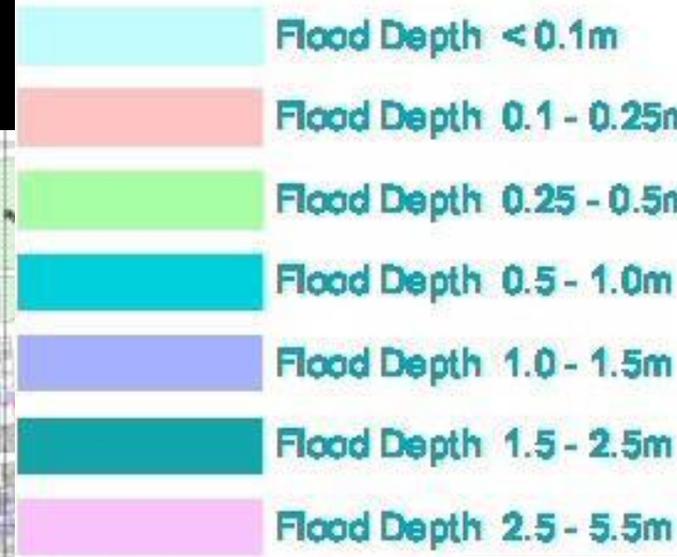
*Copied from a Plan by  
W Light Esq by W Jacob  
Assist[an]t Surveyor.*

Presented to the  
Corporation of the City of  
Adelaide by Her Majesty  
Queen Elizabeth II.  
February, 1963.

City of Adelaide Archives  
Civic Collection CC001383



# Flood Depth Contour Band

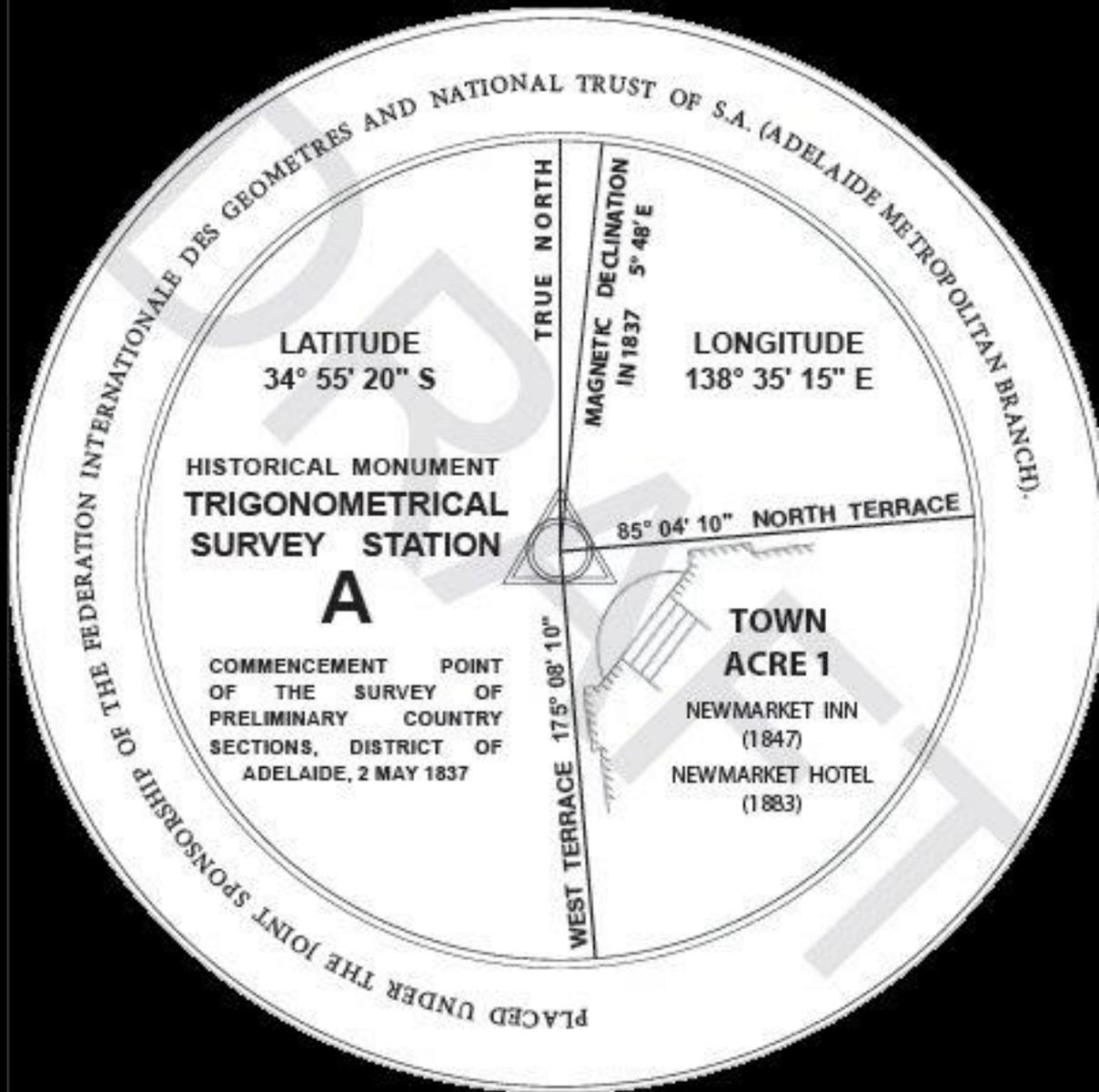




# TRIGONOMETRICAL SURVEY STATION A

Proposed  
Historical  
Marker

Commencement  
point of the  
Triangulation  
of the  
DISTRICT OF  
ADELAIDE  
2 May 1837





# Plan of the District of Adelaide South Australia

Showing the Property  
of the  
South Australian  
Company  
Adelaide 1838.

Signed by William Light:

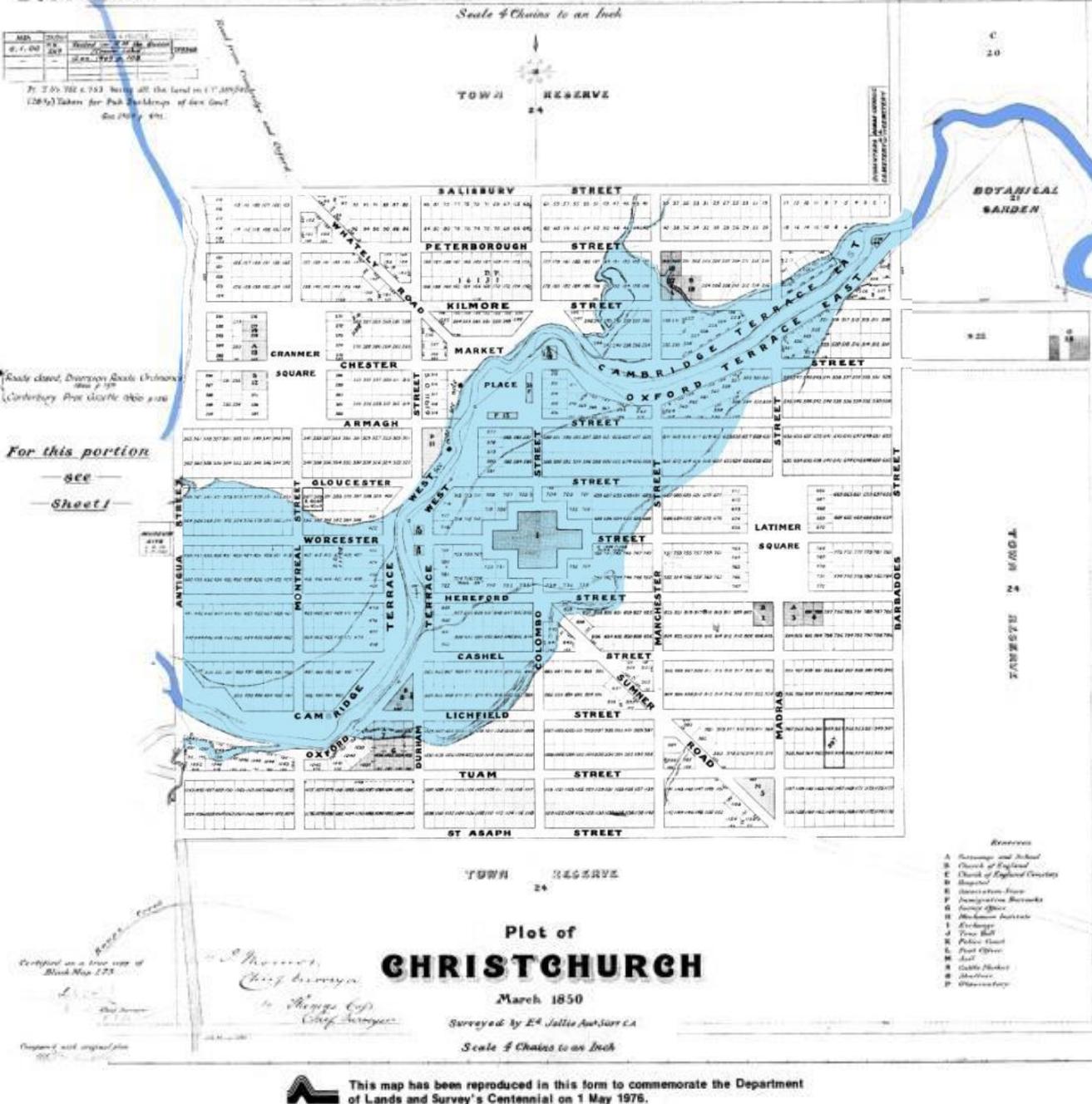
*“Light, Finniss & Co.  
Stephens Place  
Oct. 1838”*

Mortlock Library of South Australiana,  
BRG42/120/17, State Library of South Australia

Details of the Plan of the  
District of Adelaide  
Showing the Property of the South  
Australian Company,  
Light Finniss & Co., Oct 1838



Mortlock Library of South Australiana  
BRG 42/120/17  
State Library of South Australia



**Plot of  
CHRISTCHURCH  
March 1850**

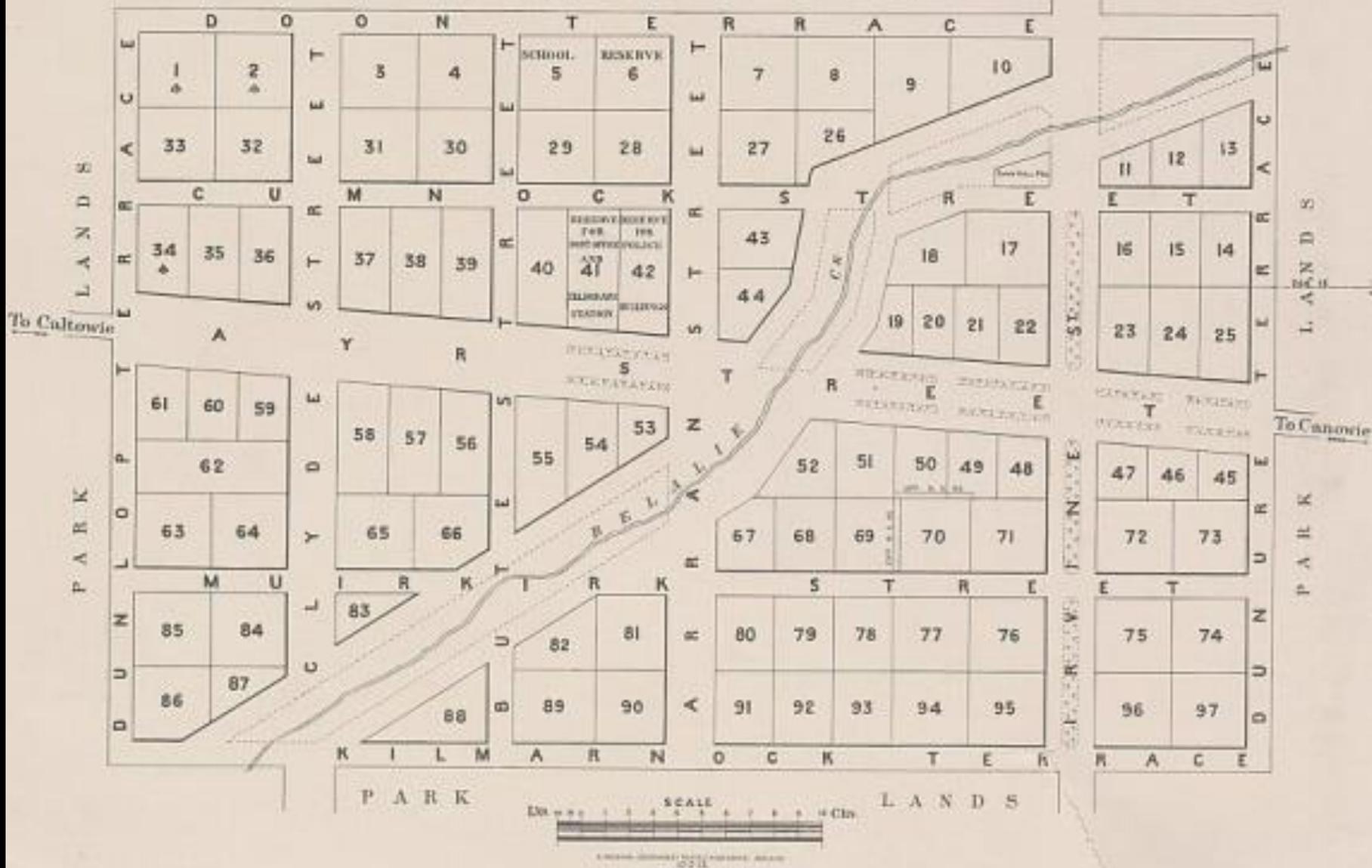
**Surveyed by  
Edward Jollie  
Assistant  
Surveyor**

This map has been reproduced in this form to commemorate the Department of Lands and Survey's Centennial on 1 May 1976.

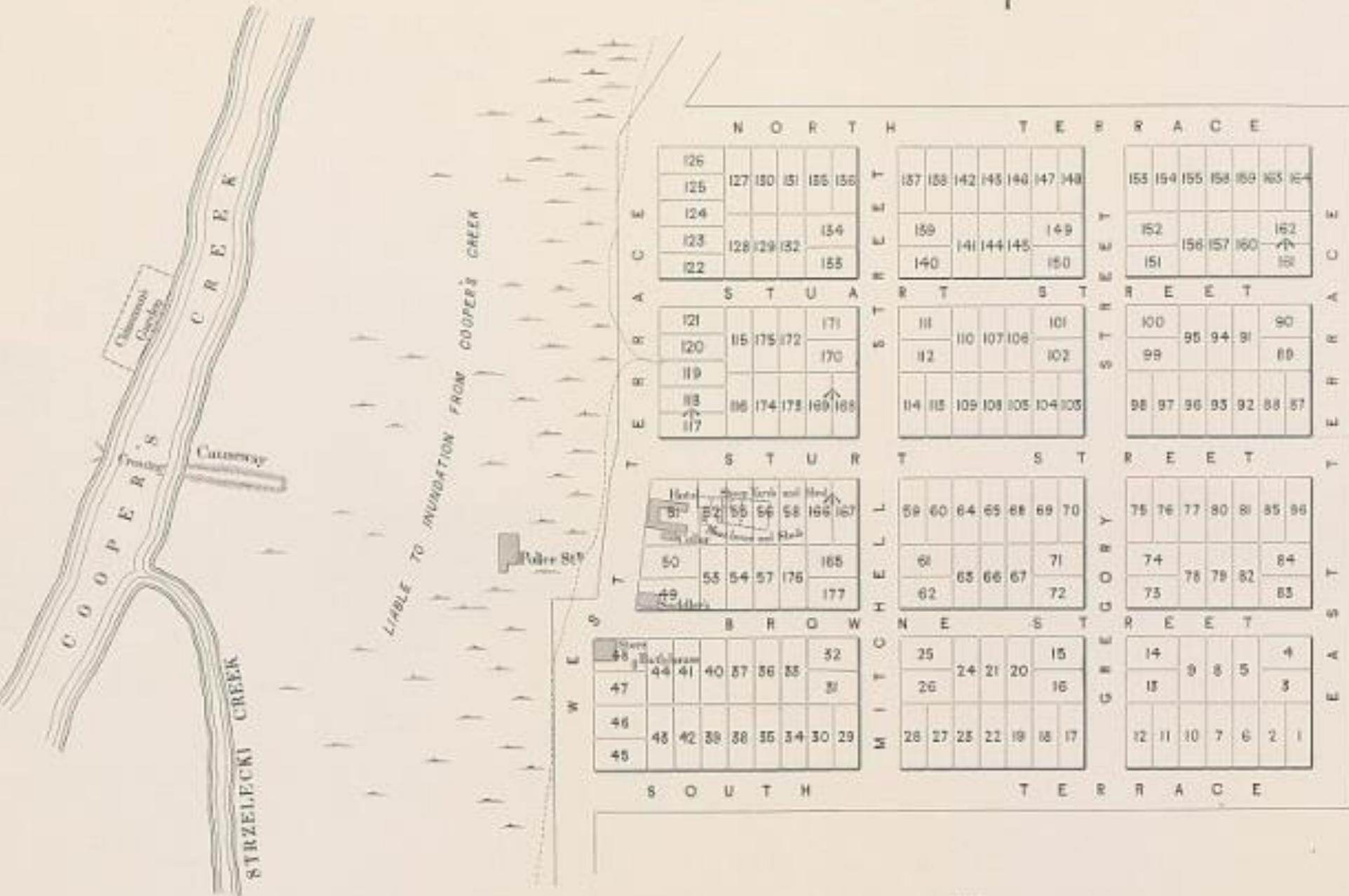
# JAMESTOWN

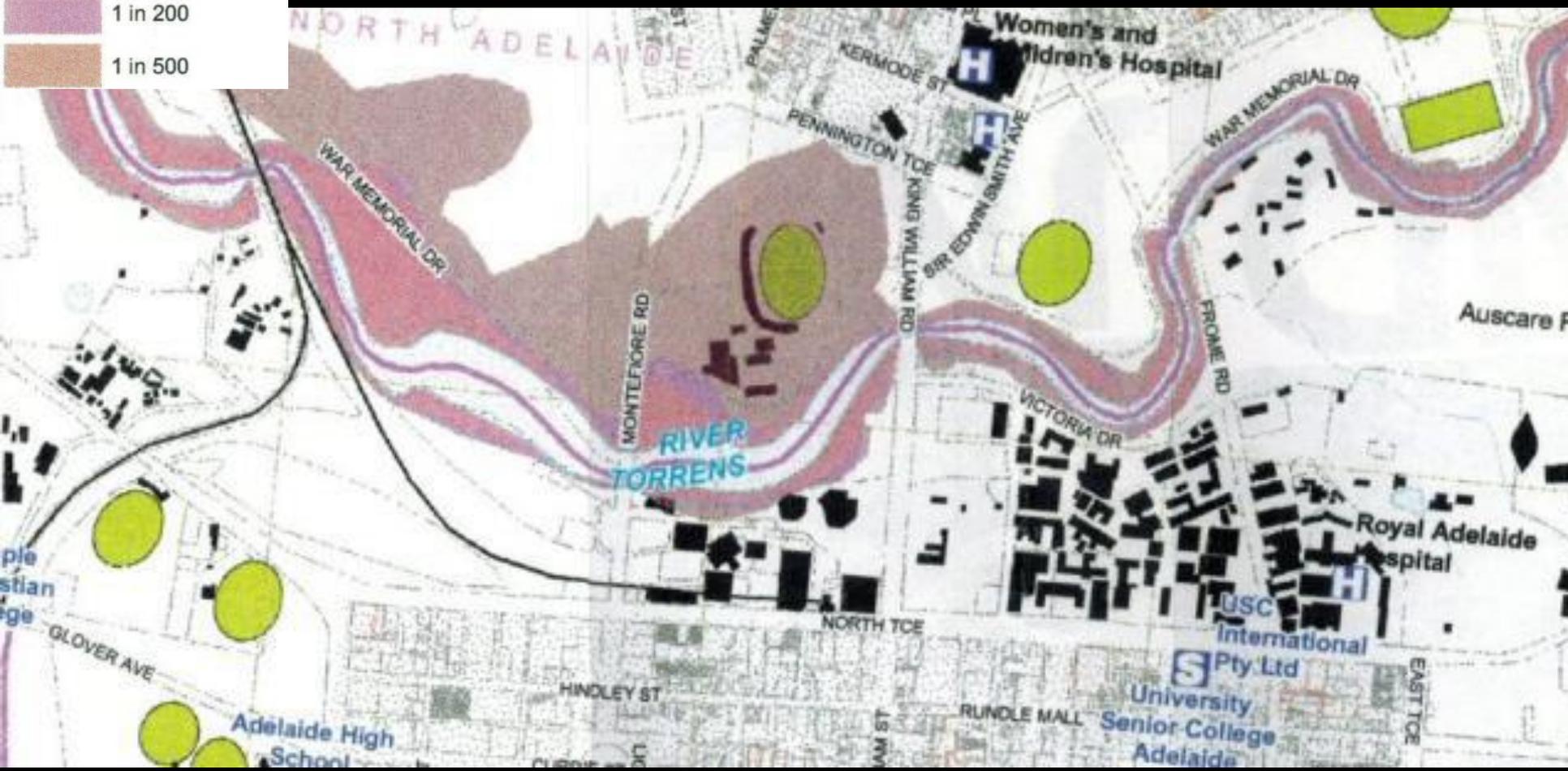
## Hundred of Belalie

P A R K L A N D S



# Innamincka . Cooper's Creek.

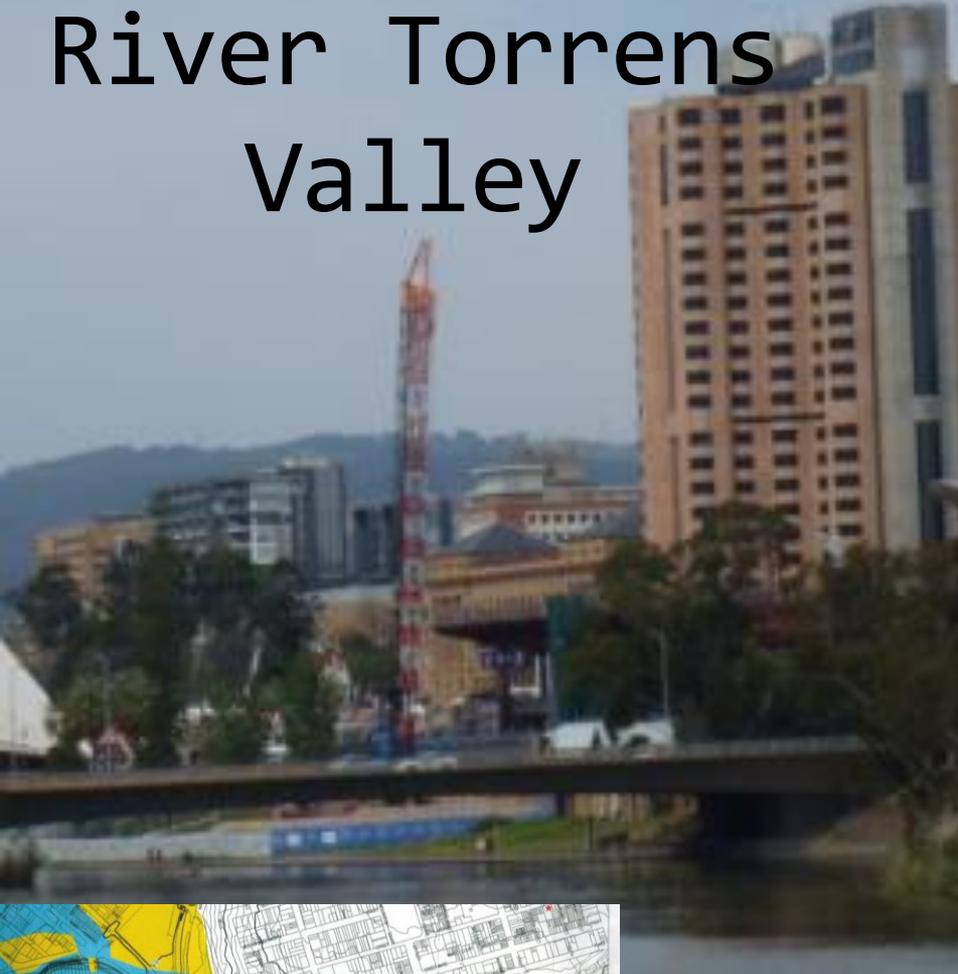








# River Torrens Valley



# NEW ZEALAND'S SKYCITY ENTERTAINMENT GROUP *ADELAIDE CASINO*

<https://riverbank.sa.gov.au/adelaide-casino-expansion-approved/>

- 11-storey development: 80-room luxury hotel; signature restaurants; premium gaming facilities
- has 'taken on broad concerns about the heritage-listed railway station', the Adelaide Railway Station building will remain intact under approved plans
- 'world-class', 'integrated entertainment destination on Adelaide's Riverbank'
- 'creating an edge for South Australian tourism'
- 'attracting a bigger share of Australia's international visitors'

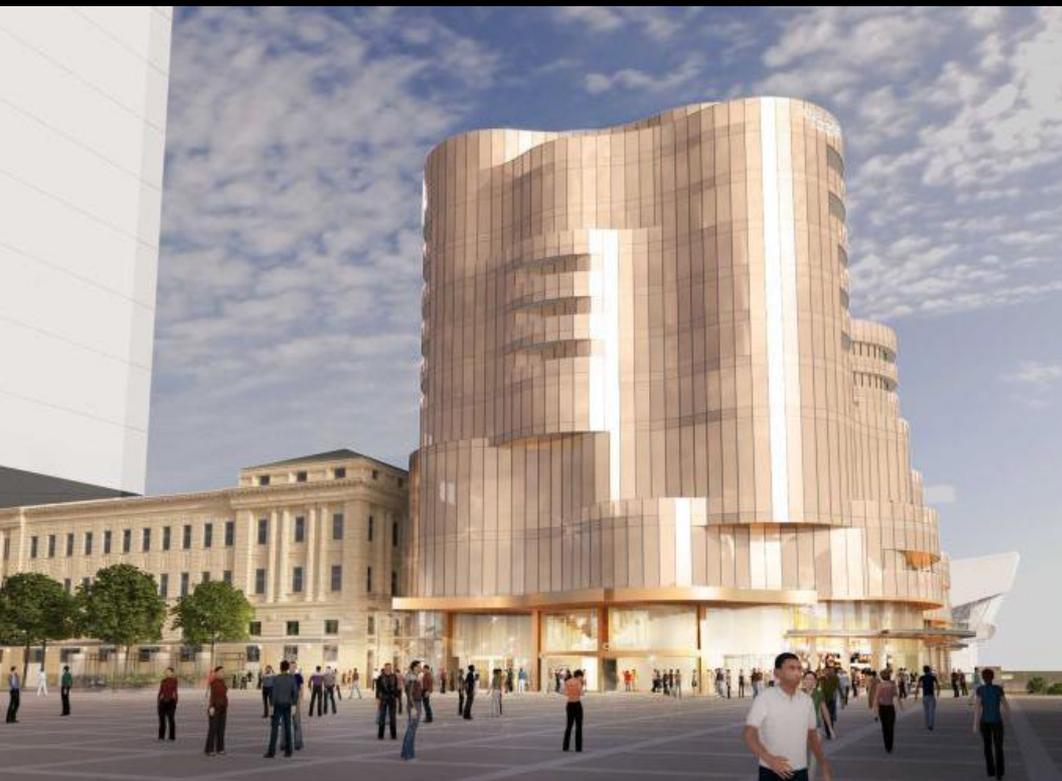
State Government released plans for the plaza [Riverbank] including an office tower (in blue) [Walker Corporation] and a new casino hotel (yellow) [SkyCity Entertainment Group].

*InDaily* 12 Aug 2015



# SKYCITY Casinso expansion in Adelaide

(Right) **ARTIST'S IMPRESSION**  
(below) \$300m 11-storey ABC  
News 26 Jan 2016



# SKYCITY CEO Nigel Morrison:

**“The SKYCITY Adelaide expansion will be a positive addition to the Festival Plaza re-development project”**

**<http://www.skycityentertainmentgroup.com/media-centre/media-releases/2016/january/22/adelaide-casino-expansion-plan-gets-green-light/>**

**James Askham-Levy**

Public Relations Manager, Adelaide Casino

DDI: +61(0)8212 4180

Mobile: +61(0)406975446

E-mail: [James.Askham-Levy@adelaidecasino.com.au](mailto:James.Askham-Levy@adelaidecasino.com.au)

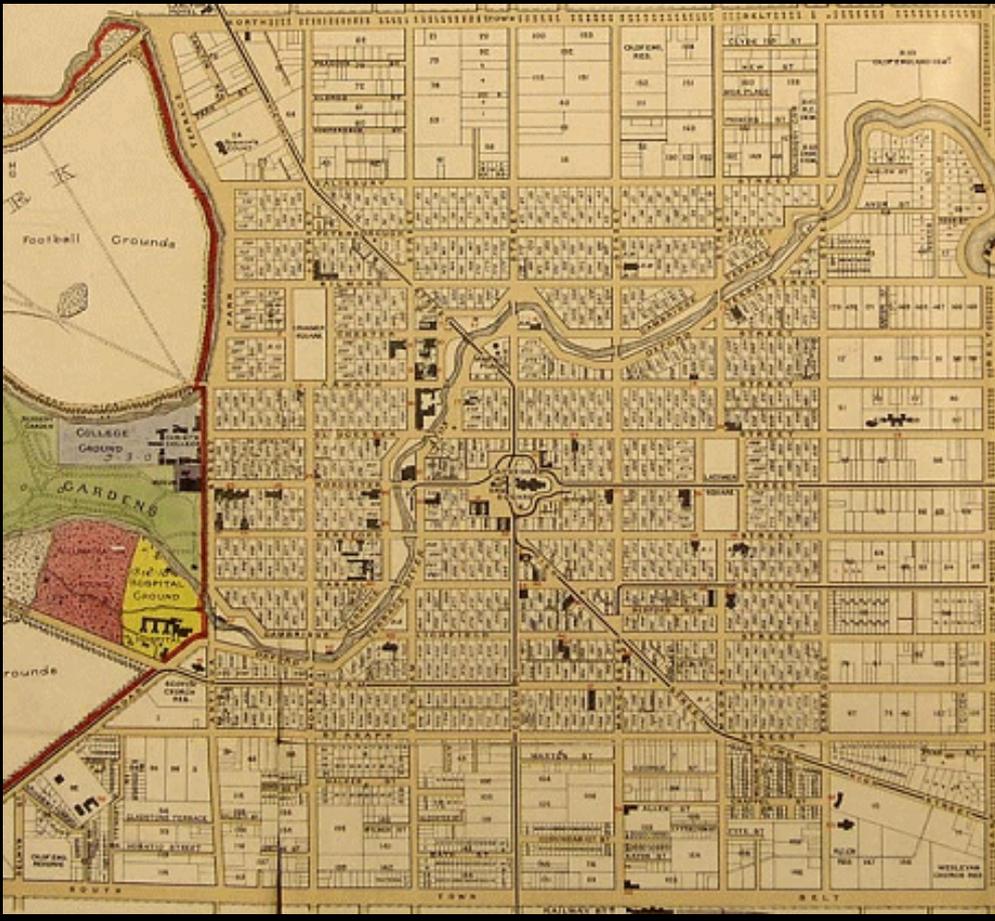
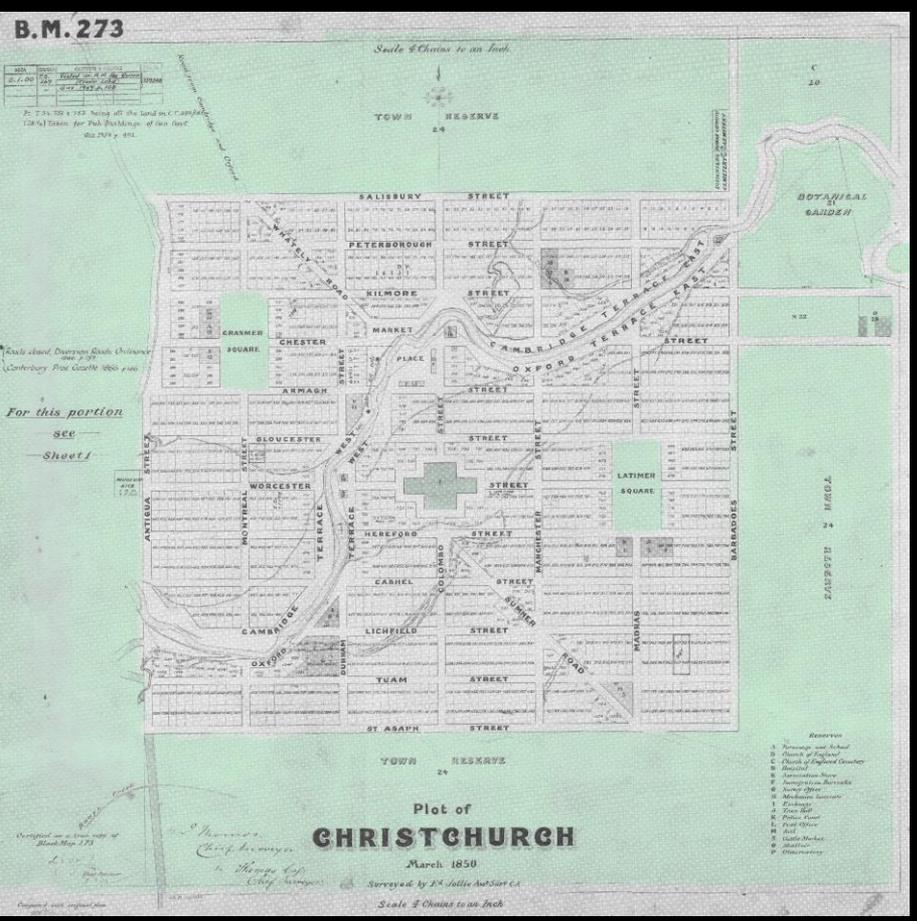


**Seoul's  
Cheonggyecheon  
area  
before stream  
restoration**



**and  
restoration  
concept**

Loss of greenbelt Town Reserves, Christchurch, Canterbury, New Zealand (right) compared with the original survey B.M. 273 Plot of the City of Christchurch, March 1850. Surveyed by Edward Jollie Assistant Surveyor, CA (left), colour added.



THE PEOPLE'S PARKS.

---

BIG AREAS GONE.

---

THE SCHEME OF COLONEL  
LIGHT.

---

ENTIRELY SET ASIDE.

---

TIME TO CALL A HAIT.

---

(By our Special Reporters.)

# Christchurch's Town Reserves...

According to Thomas Worsnop, Town Clerk of the Corporation of the City of Adelaide,

...the 1842 Waste Lands Act which gave power to reserve land in Australia and New Zealand for

'Places for the Recreation and Amusement of the Inhabitants of any Town or Village'

had been brought into existence as a result of the '... circumstances surrounding the action of Governor Gawler in respect to the purchase of the [Adelaide] Park Lands...'

Thomas Worsnop  
Town Clerk of the Corporation of the City of Adelaide  
*Report on the Purchase of the Adelaide Park Lands, 1885*

Captain Bagot: “Then the Government of that day resorted to a mock purchase, to prevent others exercising a perfectly legal right ...

**No!** [The Governor] **made a *bonâ fide* purchase ...**

Captain Bagot, Legislative Council, Tuesday 4<sup>th</sup> September, 1849

After obtaining legal advice the Commissioners authorised Gawler to effect the purchase of the Park lands which he did, thus

‘... the Park Lands and the other reserves in and around the city were purchased for and in the name, and ***upon trust*** for the citizens of Adelaide...’ [emphasis added]

Thomas Worsnop, Town Clerk of the Corporation of the City of Adelaide  
*Report on the Purchase of the Adelaide Park Lands, 1885*

**BILLS PAYABLE – FINANCIAL RECORD OF THE PURCHASE OF THE ADELAIDE  
PARK IN FEE SIMPLE ABSOLUTE (Marked "X")  
WITH NO RESERVE IN THE CROWN WHATSOEVER, NEITHER FOR ANYTHING  
BELOW, NOR ABOVE THE SURFACE OF THE SOIL**

*X These 5 Bills amounting to £2300 appear to be the Bills referred to*

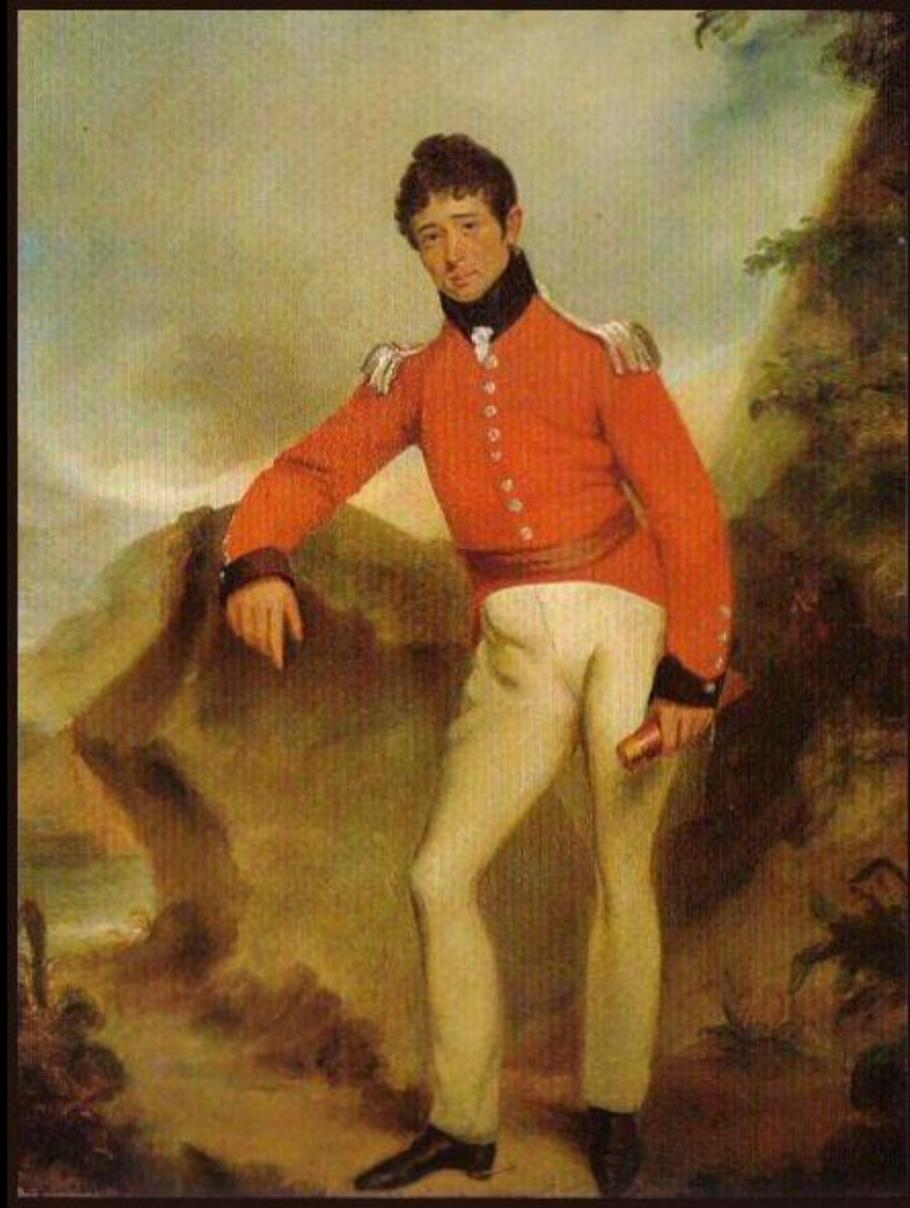
| No. of Exchange | Date         | After Sight | To whom payable                                    | When     |          | Revenue    | Emigration                               |
|-----------------|--------------|-------------|--|----------|----------|------------|--|
|                 |              |             |  | Accepted | When due |            |  |
|                 | 1839         |             |  | 1840     | 1840     | 7263 13 9  |  |
| 1 <sup>st</sup> | 15 November  | 60 days     | Mess <sup>rs</sup> Charles Beck & Co <sup>rs</sup> | 13 April | 15 June  | 388 17 9   | Premium 1 Cent                           |
| 1 <sup>st</sup> | 9 October    | 60 - do     | M <sup>r</sup> George Deane                        | 20 - do  | 22 - do  | 437 17 -   |  |
| 1 <sup>st</sup> | 13 September | 60 - do     | His Order  | 24 - do  | 26 - do  | 500 - -    | X  |
| 1 <sup>st</sup> | 13 - do      | 60 - do     | - do - do  | 24 - do  | 26 - do  | 300 - -    | X  |
| 1 <sup>st</sup> | October      | 60 - do     | John Morphett Esq <sup>r</sup>                     | 2 May    | 14 July  | 8890 8 6   |  |
| 1 <sup>st</sup> | 9 October    | 60 - do     | - do - do  | 2 - do   | 14 - do  | 167 9 6    |  |
| 1 <sup>st</sup> | 9 - do       | 60 - do     | - do - do  | 5 - do   | 7 - do   | 59 18 6    |  |
| 2 <sup>nd</sup> | 9 January    | 60 - do     | Samuel Smith Esq <sup>r</sup>                      | 11 May   | 13 - do  | 332 3 6    |  |
| 1 <sup>st</sup> | 10 - do      | 60 - do     | Rich <sup>d</sup> Monins Esq                       | 11 - do  | 13 - do  | 131 19 -   | 1/2 Premium - 1/2 Cent Com <sup>rs</sup> |
| 1 <sup>st</sup> | 13 - do      | 60 - do     | Capt J. J. Whiteside                               | 11 - do  | 13 - do  | 226 7 -    | 1/2 do - 1/2 do                          |
| 1 <sup>st</sup> | 22 November  | 60 - do     | Self   | 14 - do  | 16 - do  | 1065 18 5  | 1/2 do - 1/2 do                          |
| 2 <sup>nd</sup> | 22 - do      | 60 - do     | Self   | 14 - do  | 16 - do  | 500 - -    |  |
| 3 <sup>rd</sup> | 9 October    | 60 - do     | Mess <sup>rs</sup> John Newman & Co <sup>rs</sup>  | 15 - do  | 14 - do  | 250 - -    |  |
| 1 <sup>st</sup> | 13 September | 60 - do     | His Order  | 20 - do  | 22 - do  | 100 - -    |  |
| 1 <sup>st</sup> | 13 do        | 60 - do     | do   | 30 May   | 1 August | 500 - -    | X  |
| 1 <sup>st</sup> | 13 do        | 60 - do     | do   | 30 May   | 1 do     | 500 - -    | X  |
| 1 <sup>st</sup> | 14 November  | 60 - do     | John Under Archer                                  | 2 June   | 14 do    | 4333 15 11 |  |
| 2 <sup>nd</sup> | 27 January   | 60 do       | J. Tomlin & Co                                     | 5 June   | 7 do     | 400 - -    | 1 per Cent premium                       |
|                 |              |             |  |          |          | 114 6 6    | 1 1/2 per Cent premium & 1/2 Cent        |
|                 |              |             |  |          |          | 516 6 6    |  |



# Light Years Ahead:

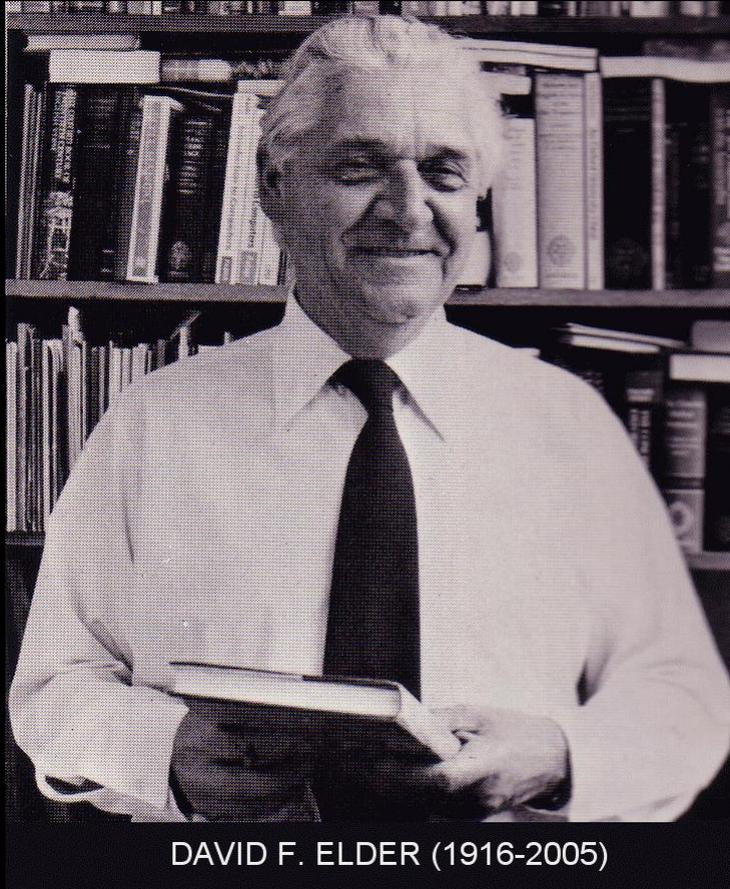
The role of  
design, survey and  
land management  
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Adelaide

Kelly Henderson  
khenderson002@gmail.com



**LIGHT**, Colonel William, Australia, 1786–1839  
**Self portrait**, c.1815 Britain, Oil on canvas on board, 83.8 x 61.8 cm  
Art Gallery of South Australia, Adelaide; 866P21

David Elder William Light Collection  
gifted to Flinders University of  
South Australia, 2005



DAVID F. ELDER (1916-2005)

*William Light's Brief Journal and Australian Diaries with an Introduction and Notes by David Elder* (Wakefield Press, 1984)

*Art of William Light*, David Elder  
(Corporation of the City of Adelaide, 1987)

*Colonel William Light*, Geoffrey Dutton & David Elder (Melbourne University Press, 1991)

John R Porter, 'Light's Survey of Adelaide – facts, fables and fancies', *South Australian Geographical Journal*, Adelaide, Australia

John R Porter, *South Australia's Shining Light – First S-G William Light*, FIG2010 Sydney

K Henderson, 'Never Absent From Duty', *Actas XXII Colóquio de História Militar*, Lisbon, 2013

K Henderson, 'From Peninsular War to Coordinated Cadastre' *ICA History of Military Cartography*, Ghent, Dec 2014  
(Springer International, 2016)

