LINCOLN STREET VENTILATION STACK HIGHGATE

PLACE INFORMATION	
Place name	Lincoln Street Ventilation Stack
Other names	Dumas' Folly
Place type	Individual building or group

HERITAGE LISTING	
inHerit ID:	3137
State Heritage Register:	18 Dec 2007
Other Listing:	Municipal Inventory Adopted 13 Nov 1995

SITE LOCATION	
Street address	57 Lincoln St
Locality	Highgate
Survey	LOT: 800 D/P: 64064
Vol/folio	LR3158/551
Reserve	RES: 6245

SIGNIFICANCE	
Level of significance	**Exceptional** Essential to the heritage of the area. Rare or outstanding example.
Management category	**Category 1** The place should be retained and conserved. Any alterations or extensions should reinforce the significance of the place and be in accordance with a Conservation Plan if one is in place.
Statement of significance	The place is an excellent example of the Inter-War Art Deco style applied to an industrial structure. The place is the only known example of a brick and render sewerage ventilation tower in Perth, making it a unique and highly distinctive landmark. The place is associated with Russell Dumas, a notable Western Australian engineer and later director of the Public Works Department, who contributed to the development of the metropolitan sewerage system and other public works projects in the early 20th century. The place was an important step in the development and expansion of Perth's metropolitan sewerage system during the 1930s and 1940s. The failure of the place to function with its intended use presented the opportunity for the further development of innovative sewerage management, arising from research into the viable management of hydrogen sulphide gas stimulated by the place's closure; The use of the place as a covert antenna during World War II, and later as a police base, is important in ensuring its continued use.

PLACE USE	
Original use	Governmental: other
Current use	Governmental: other
Other use	

CONSTRUCTION DETAILS	
Construction date	1941
Walls	Rendered brick
Roof	N/A
Architectural Style	Inter War Art Deco
Physical description	Lincoln Street Ventilation Stack comprises a 38 metre high, brick and render sewer vent, surrounded by a low wall with a chamber room attached. The structure dominates its corner location.
Condition	Good
Integrity	Moderate
Authenticity	High

HISTORICAL INFORMATION

The sewer ventilation stack was constructed for the Metropolitan Water Supply, Sewerage and Drainage Department and was completed in 1941 with modifications in 1951 when the chamber room was converted into a laboratory. The ventilation stack is of brick construction with concrete render and it is a prominent local landmark.

Built in the Inter-War Art Deco style it was designed during A.E. (Paddy) Clare's term of office as Principal Architect of the Public Works Department of Western Australia and Chief Engineer Russell Dumas oversaw its construction.

Lincoln Street Ventilation Stack opened in late 1941 and ran for only four weeks before being shut down. There are two explanations for the failure of the stack. The first is that the hydrogen sulphide, which turns to sulphuric acid on contact with water, corroded the extractor fans so quickly as to make the operation of the tower financially unfeasible. The second is that the hydrogen sulphide, which is heavier than air, on exiting the tower dispersed to the surrounding area causing complaints from residents. The ventilation operation was closed. As a spectacular failure in an otherwise illustrious career, the tower became known colloquially, among Water Corporation employees, as 'Dumas' Folly'.

In 1949 a collapse of pipes near Lincoln Street Ventilation Stack was attributed to the acceleration of corrosion promoted by the ventilation function of the stack. As part of the intersection caved in, the main line sewer pipes were re-laid, and the stack has been disconnected from the sewer since at least that time. The extractor fans were also removed. Due to lack of verifiable historical record it is uncertain exactly when and why Lincoln Street Ventilation Stack was decommissioned.

In 1942, Lincoln Street Ventilation Stack attained a new function as an antenna mast for the WA Police Department's wireless facility.

HISTORICAL INFORMATION

After 1949, the low room attached to the tower was converted for use as a laboratory. It functioned as a research facility into wastewater, including crude gas analysis, and the effects of oxygen content, alkaline levels and temperature on hydrogen sulphide gas until it was moved to the upgraded Subiaco Treatment Plant in 1961.

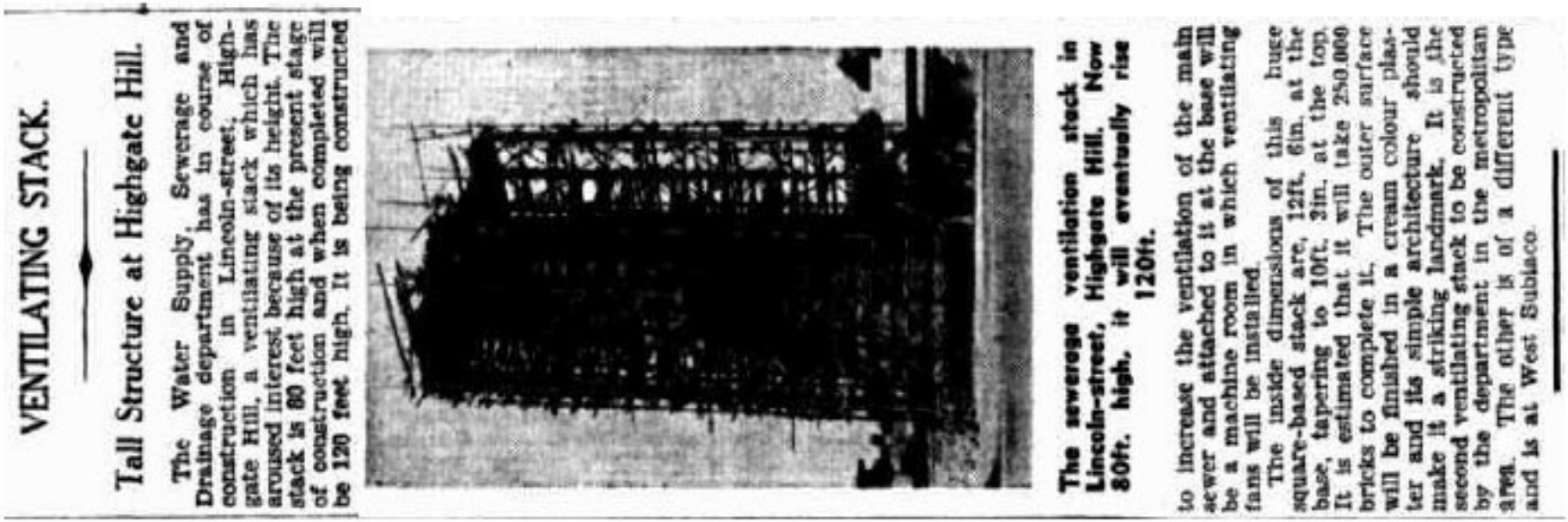
In 1961, the West Australian Police Service began renting the room from the Metropolitan Water Supply, Sewerage and Drainage for this communications function.

Lincoln Street Ventilation Stack and adjoining room contained to be used by the West Australian Police Service for a Police Road Safety Unit as a space for education. It is also used as a meeting place for the Police Historical Society of Western Australia

HISTORICAL INFORMATION

Historic theme	Social Services: Health Governing: Government and Politics Peopling WA: Demographic Development Infrastructure: Development of Settlements and Services	
Associations	Russell Dumas A.E. Clare	Engineer Architect
Sources	P3137 Lincoln Street Ventilation Stack, assessment documentation for State Registration, DPLH, 2006.	

ARCHIVAL IMAGES



VENTILATING STACK.

Tall Structure at Highgate Hill.

The Water Supply, Sewerage and Drainage department has in course of construction in Lincoln-street, Highgate Hill, a ventilating stack which has aroused interest because of its height. The stack is 80 feet high at the present stage of construction and when completed will be 120 feet high. It is being constructed to increase the ventilation of the main sewer and attached to it at the base will be a machine room in which ventilating fans will be installed.

The inside dimensions of this huge square-based stack are, 12ft. 6in. at the base, tapering to 10ft. 3in. at the top. It is estimated that it will take 250,000 bricks to complete it. The outer surface will be finished in a cream colour plaster and its simple architecture should make it a striking landmark. It is the second ventilating stack to be constructed by the department in the metropolitan area. The other is of a different type and is at West Subiaco.

The sewerage ventilation stack in Lincoln-street, Highgate Hill. Now 80ft. high, it will eventually rise 120ft.

The West Australian, 3 April 1941, p. 6.