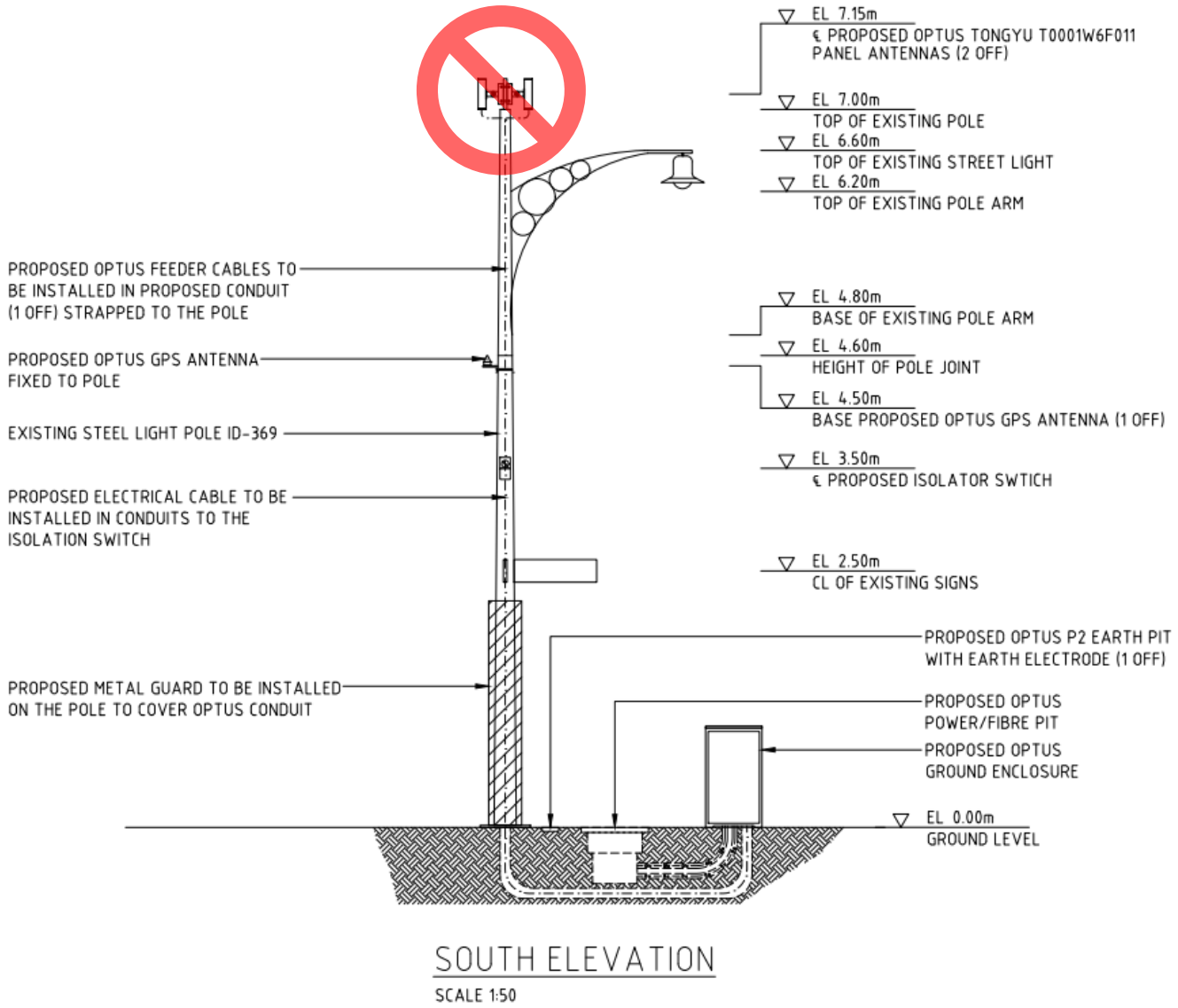
Proposed OPTUS Cell Towers

Romano Crescent ILUKA

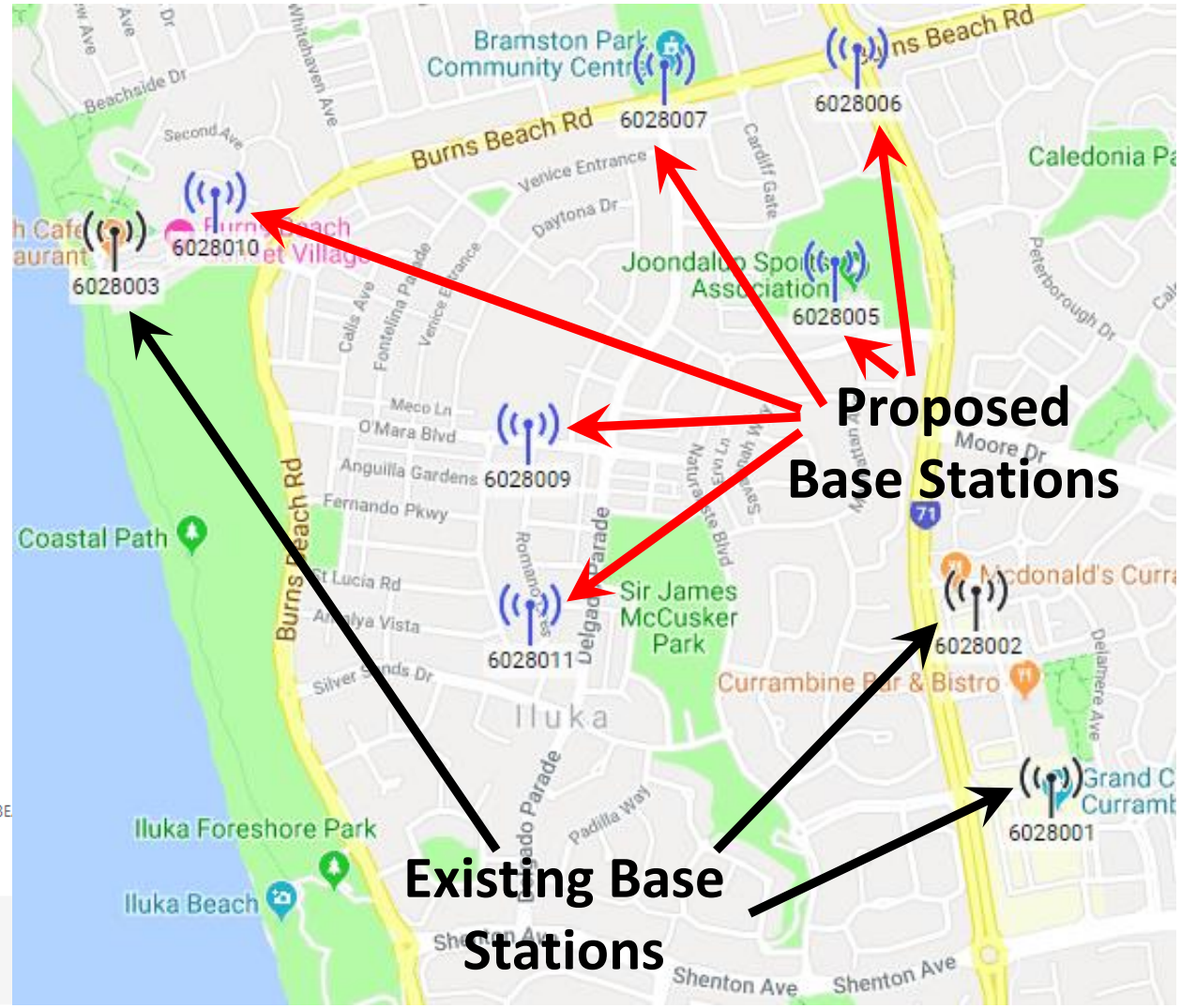


Summary

- OPTUS is proposing to install five new 4G base stations within Iluka including two on Romano Crescent
- OPTUS states these are required to deliver improved 4G coverage
- However, tests show that the existing OPTUS 4G coverage in Iluka is very good, with download speeds even exceeding 50 MB/s on Romano Crescent
- Information letters delivered to affected properties within 50m of the proposed sites include a misleading 'Indicative installation' image. This photo does not portray the proposed design which is over 7m tall and highly obtrusive
- The Environmental EME Report (Electro-Magnetic Energy) included with the letter specify radiation exposure levels at 1.5m above ground
- However, many houses surrounding the proposed sites are two storey. Exposure levels at 5-6m above ground are likely to be significantly higher than those stated
- Research shows house prices are negatively impacted relative to proximity of visible base stations
- Other proposed sites within Iluka have been rejected due to proximity to residential properties.
- Why then does OPTUS believe Romano Crescent is suitable?

Proposed and Existing Base Station Locations

6028002	LOT 1020 MARMION AVE CURRAMBINE WA 6028	Vodafone (2G 3G 4G)
6028003	Costa De Sol Cafe, 35 Ocean Pde ILUKA WA 6028	Telstra (3G 4G 4GX)
6028004	LOT 11889 Plan 191351 BURNS BEACH RD CURRAMBINE WA 6028	Optus (3G 4G 4G+); Telstra (3G 4G 4GX); Vodafone (3G 4G)
6028005 P	Iluka Sports Complex 6 Miami Beach Promenade ILUKA WA 6028	Optus (3G 4G 4G+); Vodafone (3G 4G)
6028006 P C	Existing utility pole #2112130 within the road verge of Marmion Avenue Adjacent to 47 Boynton Gardens Road ILUKA WA 6028	Optus (4G)
6028007 P C	Existing utility pole #2183575 within the road verge of Burns Beach Road Adjacent to 29 Galveston Loop ILUKA WA 6028	Optus (4G)
6028008 P C	Existing utility pole within the road verge of Marmion Avenue Adjacent to 13 Maroma Loop BURNS BEACH WA 6028	Optus (4G)
6028009 P C	Existing utility pole #432 within road verge Adjacent to 81 Romano Crescent ILUKA WA 6028	Optus (4G)
6028010 P C	Existing utility pole #WP1153996 within the road verge of Ocean Parade On the intersection of Second Avenue and Ocean Parade BURNS BE	Optus (4G)
6028011 P C	Existing utility pole #369 within road verge Adjacent to 45 Romano Crescent ILUKA WA 6028	Optus (4G)



Existing OPTUS Coverage within Iluka

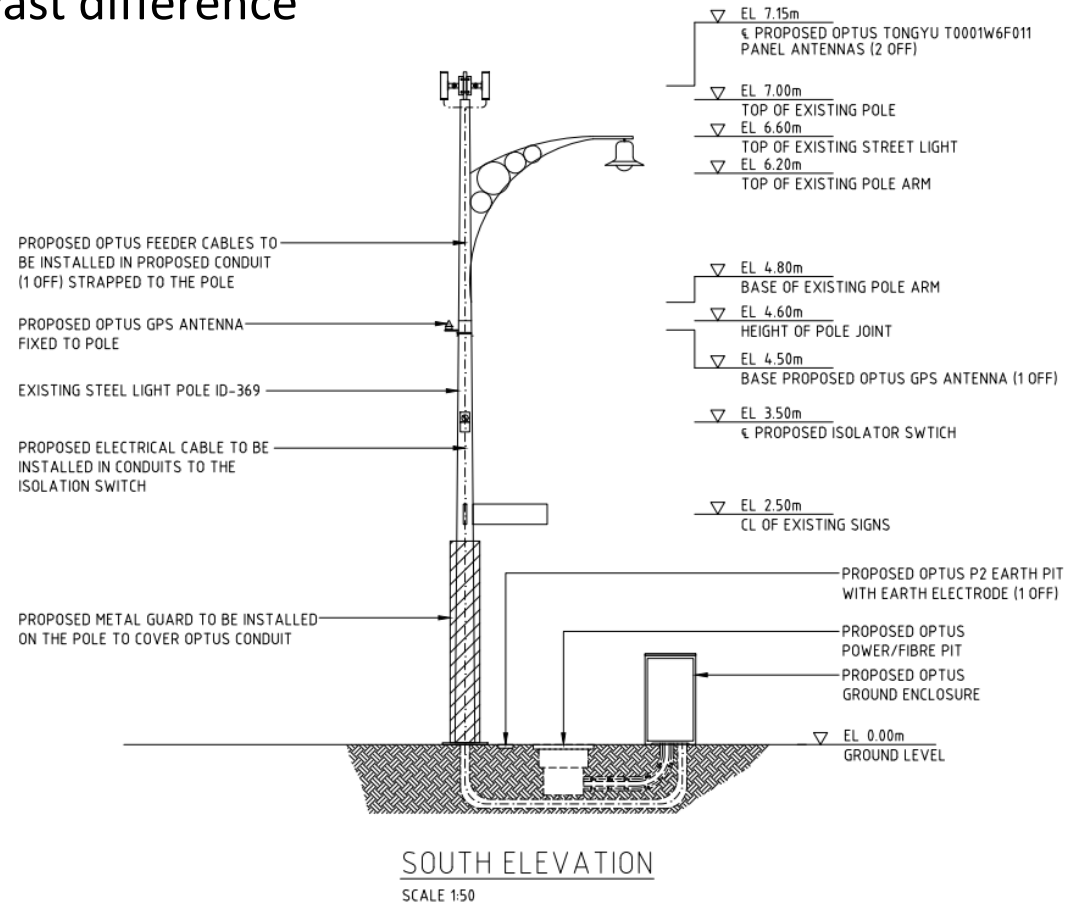
- At 6pm on Sunday 6th October OPTUS download speeds were tested at various locations within Iluka
- The results are shown on the right and below
- It is clear that existing download speeds are very good, exceeding 10Mbps at all locations tested, and even reaching 58Mbps at the location of one of the proposed sites on Romano Crescent
- ADDITIONAL BASE STATIONS ARE NOT REQUIRED

Misrepresentation of Proposed Design

- The letter distributed to local residents includes an ‘Indicative installation’ image as shown below

Indicative installation

- However, the proposed installation shown below incorporates a large, highly obtrusive transmitter array atop the existing iconic Iluka lamp pole – a vast difference



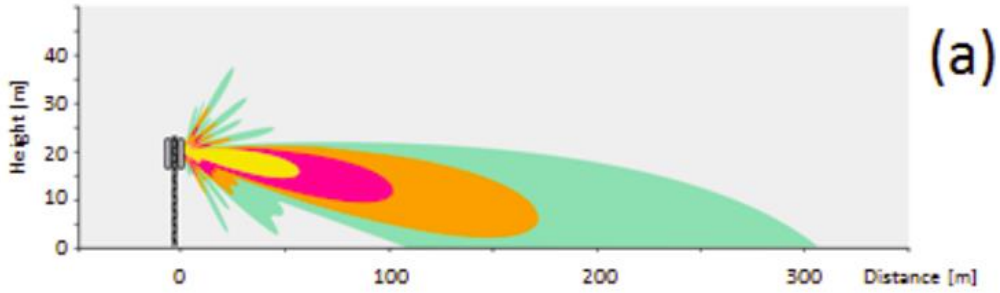
Electromagnetic Energy (EME) Exposure

- The proposed transmitters are 7.15m above ground
- The information letter includes calculated EME levels at various distances 1.5m above ground
- Many properties surrounding the proposed sites are 2-storey
- Exposure levels are likely to be significantly higher at 5-6m above ground; the typical bedroom height of surrounding properties
- OPTUS did not include EME levels at these heights

https://www.arpansa.gov.au/research/surveys/environmental-electromagnetic-energy-reports

Effect of Landscape (topography)

The tables of calculated EME levels provide values at 1.5 m above a flat landscape. Commonly, wireless base stations are located on a high point and the assumption of flat ground provides a worst-case estimate for these situations. Sometimes, however, the ground may slope upwards away from the base station and this can cause concern that levels may be higher than calculated. In these cases the 'Calculated EME levels at other areas of interest' table should include the levels of EME at a selection of heights where maximum levels are expected.



Paper on property value impact

Link:

https://link.springer.com/epdf/10.1007/s10018-017-0190-9?shared_access_token=pdkFPr6ZOCGXAy_7YgoUNve4RwlQNchNByi7wbcMAY58CBhQkEgQsFo_i8HtdgQMoZEhW9k3qQAjjkExC4545HRYBrstvza5-QFyxzAUdYC3u_bp_ClS9M_H07vfRzheIAPaHWUiD70U83a2rxYxpg%3D%3D

The impact of cell phone towers on house prices: evidence from Brisbane, Australia

Darshana Rajapaksa[1] · Wasantha Athukorala[2] · Shunsuke Managi[3] · Prasad Neelawala[4] · Boon Lee[1] · Viet-Ngu Hoang[1] · Clevo Wilson[1]

Received: 20 April 2017 / Accepted: 20 June 2017 / Published online: 27 June 2017

Abstract The growing public pressure against the spread of cell phone towers in urban areas has created a need to understand their impact on adjacent house prices. A few existing studies are, however, controversial in their methodology and inconclusive in their results. Therefore, our study on the effect of cell phone towers on house prices is designed to avoid these deficiencies. Property transaction data collected from two suburbs within the Brisbane City Council were analysed adopting the spatial hedonic property valuation model. The estimated models were statistically significant and were largely in line with theoretical expectations. The results revealed that proximity to cell phone towers negatively affects house values, decreasing as the distance from the tower increases. A suitable compensation programme for nearby property owners is, therefore, suggested as being an appropriate policy response.

Keywords Cell phone towers · Externalities · Hedonic property valuation · Spatial analysis

JEL Classification Q51 · R23 · R31

5 Conclusions and recommendation

This study investigated whether there is a nexus between distance to cell phone towers and house prices through a spatial hedonic property valuation model. Existing studies which sought to isolate the impact of cell phone towers on adjacent house values have found a negative effect. However, this study differs from previous research in two important aspects: we take into account the presence of different tower types and accommodate spatial effects in hedonic model estimation. The Australian study—where there is scant empirical evidence of the impact of cell phone towers on property markets—was conducted in two Brisbane suburbs which display both urban as well as semi-rural characteristics. All types of cell phone towers had been installed in these two suburbs, the differing visual amenities of which have not been incorporated in previous studies. In addition, unlike previous studies, a spatial hedonic model was found to be the most appropriate model to use recognizing the importance of spatial effects.

Several spatial hedonic models were, therefore, estimated to capture the impact of cell phone towers on adjacent properties. Based on the explanation of hedonic theory, we included the presence of towers nearby properties as a characteristic of the property. As we expected, the results clearly show that cell phone towers negatively affect adjacent property values, although in a relatively modest way. The negative impact decreases with the distance to the tower with by far the largest effect occurring within the first 200 m. Furthermore, the research confirms that all types of towers exert similar impact on property values despite various towers having different visual effects which demonstrate that the residents' concern is more on health impacts than visual effects. This finding raises the question of whether decisions on the location of towers taken by telecommunication companies and subject to government approval should not create a liability to compensate affected property owners.

Site Selection

- OPTUS previously considered several other locations for the transmitters including the light pole adjacent to 8 Whitewater Lookout Drive
- This site was assessed unsuitable and rejected. The reason given as it is *"Located adjacent to multiple residential properties."*
- Why then does OPTUS think Romano Crescent is suitable?

Consultation Plan - RFNSA site 6028011

Site Selection & Stakeholder Analysis

Code Ref	Question	Answer	
C2.2 (a)&(g)	**Site Selection evaluation (including evaluation of alternate sites)**	A site selection process was undertaken in the area prior to confirming the new facility on the existing utility pole as the preferred solution. This process matched potential candidates against four key factors, namely; . Construction feasibility and reasonable costs; - Town planning considerations (such as zoning, surrounding land uses, environmental significance, compliance with the LEP and visual impact); - The availability of viable connections to the power and transmissions networks in the area; - The willingness of the land owner to enter into a formal tenure agreement with Optus.	
		Candidate	**Reason**
		Existing light pole adjacent to 42 Silver Sands Drive.	Located within a road island, road closures required for construction and maintenance. On going maintenance and safety issues associated with site location. Pole considered not feasible.
		Existing light pole adjacent to 8 Whitewater Lookout Drive.	Located adjacent to multiple residential properties.
C2.2 (b)	**How were Community Sensitive locations determined?**	Community sensitive locations are determined through a desktop analysis surrounding the proposed site location.	
C2.2 (c)	**What are the Desired Outcomes from the Stakeholder Analysis?**	The desired outcomes from the stakeholder analysis process are to identify those in the community who may be either an "interested or affected" party in relation to the proposed development. Identifying core community stakeholders will help facilitate an active and participatory wider role within the consultation process identified within this document.	