Peter A H James
12 Eighth Avenue
Coorparoo QLD 4151
16 April 2026

Brisbane City Council
Development Assessment
GPO Box 1434
Brisbane QLD 4001

Re: Performance Solution Report - Statement of No Adverse Impact

Development Name	Eden on Eighth
Site Address	14 Eighth Avenue, Coorparoo QLD 4151
Real Property Desc.	Lots 1–4, SP298097
DA Reference	A003486100
Application Type	**Minor Change - Section 81, Planning Act 2016**
Original Performance Solution Report	**See Appendix A (03/11/2012)**

To Whom It May Concern,

1. Author's Credentials and Document Identification

I am the author of the Performance Solution Report identified above (see Appendix A), which was prepared and submitted in support of the Development Application for the construction of four (4) eco-industrial townhouses at 14 Eighth Avenue, Coorparoo (then described as 12 Eighth Avenue, being Lots 414 and 415 on RP12779, now Lots 1–4 on SP298097). That Development Application was approved on 16 April 2013 (DA Reference A003486100).

I prepared the Report in my capacity as the project developer, professional engineer and experienced ESD Engineer, and it was subject to my own preparation, checking and approval. The Report addressed the performance criteria under City Plan Chapter 5 - Low Medium Residential Code, Section P13, which required that development must not significantly reduce daylight to open space and habitable rooms in adjacent development, and that boundary walls must be limited in dimensions and openings to minimize impact on neighbors.

The Report was accepted by Council and the performance solution was incorporated into the approved development. The as-built development was constructed in accordance with the Development Approval and the certified performance solution, with the built form achieving a roof terrace finished floor level of 7.9 meters above the site datum (a reduction from the modelled 8.12m in the Report) (compared to the 8.5m height used for the Acceptable Solution design in the Report).

2. Nature of the Proposed S81 Minor Change Amendments

I have reviewed the proposed Minor Change (Section 81) amendments to the Development Approval, which comprise the following elements:

(a) Rooftop photovoltaic solar panel array and associated mounting frames and metal roof structure: a 4.8 kW system, approximately 11.5m × 3.6m in plan, with frame/roof height of 2.7m (central units) and 2.5m (end units) above the roof terrace finished floor level. End units also include open-sided horizontal louvre screens.

(b) NCC Section C - 60/60/60 fire-rated parapet wall upgrades to the existing boundary walls, required by the Building Certifier as a condition of building approval. These upgrades relate to fire-rating performance of the existing boundary walls and do not alter the building's external bulk,

height or setbacks in any material way.

All amendments are located at or above the third-story roof terrace level, at a finished floor level of 7.9m above the site datum. The development as a whole, and roof terrace itself sits some 2.5m to 3.5m below adjoining street fronting neighboring dwellings due to the site's significant topographic fall of 2.5 to 3.5 meters from south to north, and its being set back approximately 25 meters from the street frontage of Eighth Avenue.

3. Assessment: Privacy Impact

The Performance Solution Report demonstrated that the approved development satisfies the privacy performance criteria (P13) for all eight viewpoints assessed, including views from 7, 9 and 13 Ninth Avenue, and 10, 12 and 16 Eighth Avenue. In all cases the performance solution was equal to or better than the outcome that would have been provided by the Acceptable Solution (A13.3).

The proposed solar panel frames and mounting structures are located on the roof terrace at a height of 7.9m FFL, rising to a maximum of 10.6 m above the site datum. The roof terrace is not visible from ground level or from the habitable room windows of any of the neighboring properties assessed in the Report, by virtue of the site's topography, the 25m setback from the street, and the geometry of the development. The proposed new solar roof panel roof structure only being visible from the rear decks of 10 and 16 Eighth Avenue, see Drawings 6 and 7 in the "2604 Eden on Eighth Amendment Drawings.pdf" drawing package included in the applicants S81 Submission documents.

The addition of horizontal louvre screens to the sides of the end units specifically reduces the already-minimal potential for any lateral visual privacy impact. This represents an improvement over the development as modelled and approved.

I am satisfied that the proposed S81 amendments do not adversely affect the privacy outcomes demonstrated in the Performance Solution Report, and in respect of the end-unit louvre screens, represent a further improvement.

4. Assessment: Solar Access Impact

The Performance Solution Report demonstrated, through comprehensive Ecotect computational modelling, that the approved performance solution (incorporating a 4m rather than 6m rear setback) delivered significantly superior solar access outcomes for all adjoining properties compared to what would have been provided under the Acceptable Solution A13.3 with a 6m rear setback. The principal reason for this finding is the north-downward-sloping topography of the site: as the development is situated to the south of the neighboring properties on Ninth Avenue, increasing the rear setback would have moved the building mass further south and uphill - causing greater, not lesser, shading to the properties to the north.

The whole-of-year solar modelling results showed that the Performance Solution delivered an improvement in direct solar light access across all assessed surface types (ground/gardens, roofs, north/south-facing windows, east/west-facing surfaces) compared to the Acceptable Solution. Improvements ranged from approximately 10% to over 50% across the assessed neighboring properties.

The proposed solar panel mounting frames and roof structure add a maximum of 2.7m in height above the 7.9m roof terrace FFL, resulting in a total structure height of up to 10.6m above the site datum. This is 0.9m below the maximum permissible height of 11.5m under the LMR2 zone.

I acknowledge that the solar panel structures, by virtue of their additional height, will project incrementally larger shadows than the roof terrace alone. However, for the following reasons, I am satisfied that this incremental effect does not alter the fundamental conclusions of the Performance Solution Report:

(i) The neighboring properties to the north (Ninth Avenue) were demonstrated in the Report to receive no shading impact whatsoever from the development under any of the three modelled

scenarios (pre-development, Acceptable Solution and Performance Solution). The panel frames, being located above an already shadow-free roofline in respect of these northern neighbors, do not create a new impact.

(ii) Any marginal additional shadow from the panel frames falls to the south and south-west. The site is located to the north of the neighboring properties on Eighth Avenue (10, 12 and 16 Eighth Avenue), which are themselves on higher ground. The site's 2.5 to 3.5m topographic fall from south to north reduces the effective height of the development as seen from these southern neighbors, and the additional panel frame height does not overcome this geometric advantage.

(iii) Even if the marginal additional shadow from the panel frames were to result in a slight reduction in direct solar access relative to the as-built rooftop terrace alone, the net outcome for all assessed surfaces across all neighboring properties would remain materially superior to the outcome that would have been produced by the Acceptable Solution A13.3. The substantial margin of improvement demonstrated in the Report (typically 10 - 50%+ across assessed surfaces) provides ample headroom to absorb this marginal increment without undermining the performance solution's fundamental advantage over the Acceptable Solution.

(iv) The NCC fire-rated parapet wall upgrades (element (b) of the S81 amendment) do not alter the external bulk, setbacks or massing of the development in any way relevant to the solar access findings of the Report. These are internal fire-rating upgrades to existing boundary walls.

5. Conclusion

Having reviewed the proposed S81 Minor Change amendments in the context of the findings and methodology of the Performance Solution Report, I confirm the following:

(a) The proposed amendments - comprising rooftop solar panel mounting frames and structure, NCC 60/60/60 fire-rated parapet wall upgrades, and associated horizontal louvre screens to end units - do not adversely affect the privacy outcomes demonstrated in the Performance Solution Report. In respect of the end-unit louvre screens, the outcome is improved.

(b) The proposed amendments do not adversely affect the solar access outcomes demonstrated in the Performance Solution Report. The fundamental conclusion of the Report - that the approved performance solution provides materially superior solar access outcomes for all neighboring properties compared to the Acceptable Solution A13.3 - remains valid and is not undermined by the proposed rooftop amendments.

(c) The performance criteria under City Plan Chapter 5, Section P13 (as addressed in the Report) continue to be satisfied by the development as amended.

Declaration

I, Peter A H James, of 12 Eighth Avenue, Coorparoo QLD 4151, declare that the above statement is true and accurate to the best of my knowledge. I am the sole author of the Performance Solution Report (see appendix A) (File Reference 12/12-02-KFI Dev no 1, Issue 2, dated November 2012) submitted with the original Development Application A003486100.

16 April 2026

Peter A H James
QBCC 15143979 (Open)
RPEQ 12470 (Mechanical, Civil, Building Services)

Appendix A

Performance Solution Report submitted as part of the DA Application Package

Application No: A003429530

(DA Reference: A003486100)

At: 12 Eighth Avenue, Coorparoo, Qld
Date: 3 November 2012

(File Reference 12/12-02-KFI Dev no 1, Issue 2, dated November 2012) submitted with the original Development Application A003486100.)

Development Application

Supplementary Report

Performance Solution Report Rev2 – Performance Criteria 13 (Low Medium Residential Code)

(Please Print at A3 Size)

At: 12 Eighth Avenue, Coorparoo, Qld

Application No: A003429530

Date: 3 November 2012

By: Peter James (ABN 12796538397) RPEQ 12470

For: Kim Family Investment Trust

Document Verification

Job title		KFI | 12 Eighth Avenue – Site Development Project			
Document title		12 Eighth Avenue – Performance Solution Report		**File reference**	12/12-02-KFI Dev no 1
Document ref		12/12-02-KFI Dev no 1/03 Stages & Work/01 Architecture/01 DA Draft/12-09-02 Performance Solution Report			
Revision	**Date**	**Filename**	12-09-02 Draft Performance Solution Report.doc		
Final	12-09-02	**Description**	Final - for Council Pre-lodgement Meeting		
			Prepared by	Checked by	Approved by
		Name	PJ	PJ	PJ
		Signature			
Final (Issue 2)	12-11-03	**Filename**	12-11-03 Performance Solution Report .doc		
		Description	Final (Issue 2) - for submission together with DA Submission		
			Prepared by	Checked by	Approved by
		Name	PJ	PJ	PJ
		Signature			
			Issue Document Verification with Document		✓

Contents:

Executive Summary

Firstly, please also note that the results shown in the Report (Rev1) show an even greater improvement in performance than those detailed in the Pre-Lodgement version of this Report - the reason for this being that the proposed development has now been lowered in height from 9.5m to 8.12m and has been reduced in width by 0.25m on both sides.

The purpose of this Report is to demonstrate that the performance solution adopted by the proposed development at 12 Eighth Avenue, Coorparoo (Application Number A003429530) satisfies the following Brisbane City Plan Code.

The reason why a performance solution has been proposed rather than simply adopting the code's prescribed 'acceptable solution', is because it became apparent to this project's designers that for this site's particular topography the acceptable solution would not meet the required performance criteria (the circumstance for this occurrence is also noted in Councils design guide, Subtropical Design in South East Queensland A Handbook for Planners, Developers and Decision Makers (2010), see also Section X of this Report).

Code:	City Plan – Chapter 5 – Low Medium Residential Code
Section Heading:	Privacy and access to sunlight
Performance Criteria P13:	Development must not significantly reduce daylight to open space and habitable rooms in adjacent development boundary walls must be limited in dimensions and openings, to minimise the impact on neighbours
Acceptable Solution A13.3	Minimum rear boundary setback is 6m Note: minimum setbacks do not apply to eaves and sun shading devices

This Report shows that the performance solution adopted by the proposed development satisfies the Code requirement and delivers a greater degree of privacy and access to light for the development site neighbours than would have been provided by strictly following the Acceptable Solution A13.3. Indeed, the results overwhelmingly shows the performance solutions is preferable to the acceptable solution, see Table 1 below:

Performance Criteria Assessment	Issue	Neighbours					
		7 Ninth Ave.	9 Ninth Ave.	13 Ninth Ave.	10 Eight Ave.	12 Eight Ave.*	16 Eight Ave.
Proposed Performance Solution compared to Acceptable Solution	Privacy	No Impact	Reduced	No Impact	Improved	Improved	Improved
	Access to Sunlight	No Impact	Improved	Improved	Improved	Improved	Improved
Acceptable Solution compared to Proposed Performance Solution	Privacy	No Impact	Improved*	No Impact	Reduced	Reduced	Reduced
	Access to Sunlight	No Impact	Reduced	Reduced	Reduced	Reduced	Reduced
* Existing Dwelling at the front of the Site							

Table 1 - Improvement in the Proposed Performance Solution compare to the Acceptable Solution A13.3

Note, the acceptable solution provided an improvement over the performance solution for only one out of twelve considerations (see * above) – namely for improved privacy to the SE wall of the multi-unit block at 9 Ninth Avenue. However, it should be noted that this main location for views for the residents of 9 Ninth Avenue are the large balconies on the NE and SW sides of the building.

This Report details the findings for the following investigations, each of which demonstrates that for this particular site the proposed performance solution provides superior solar access, privacy and subtropical design appropriate ness:

- Solar Access Investigation
- Privacy Investigation
- Subtropical Design Investigation
- Case Precedent s Presentation

However, before detailing these findings a brief site orientation and a brief overview of the performance solution, acceptable solution building designs and solar modelling methodology will be presented, see next two sections.

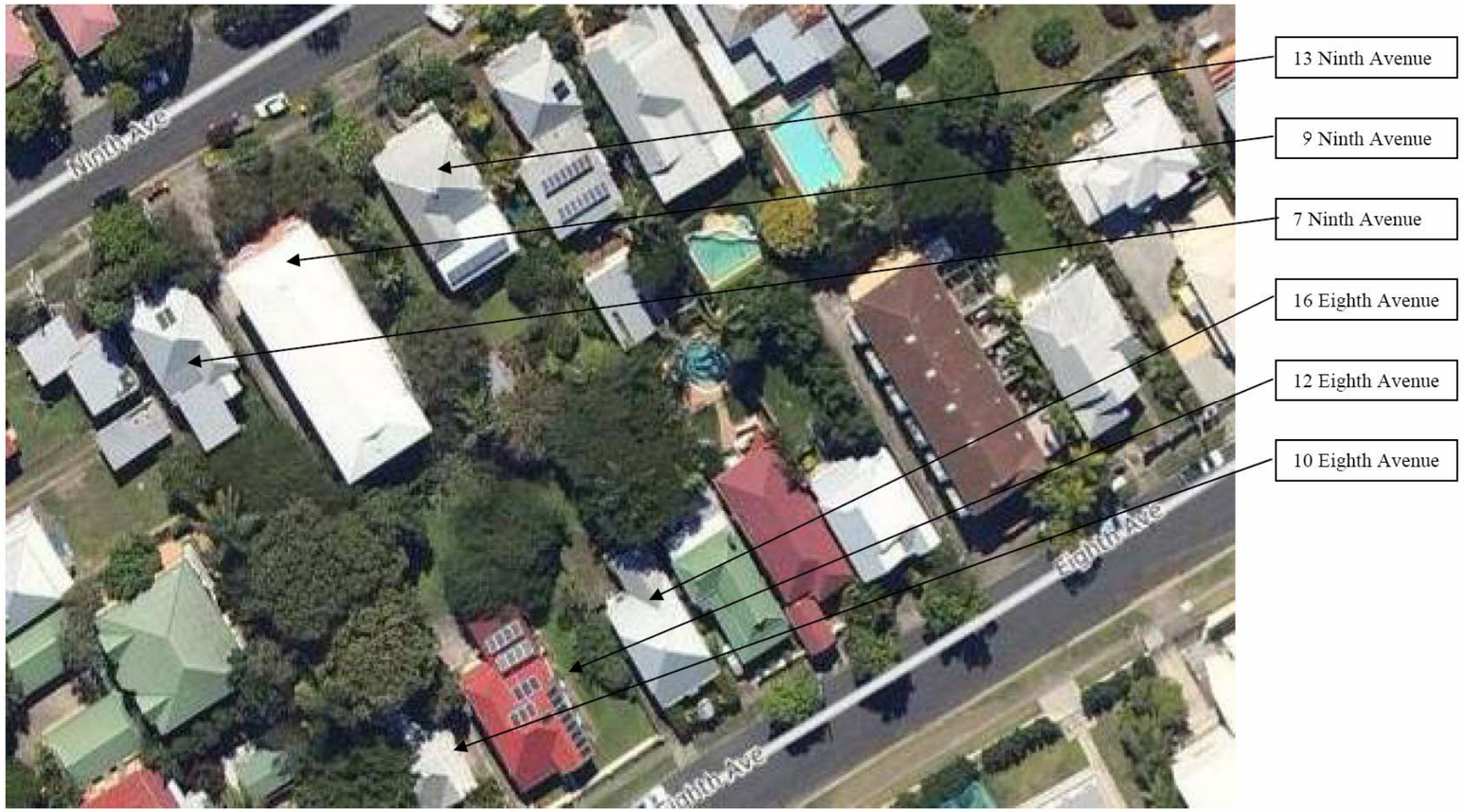
1. Site Orientation

Site Location

The subject site (Lots 414 and 415 on RP12779 at 12 Eighth Avenue, Coorparoo, Qld 4151 is 809m^2 in area and is currently occupied by a single lowset Queenslander house.

Views of Neighbouring Properties

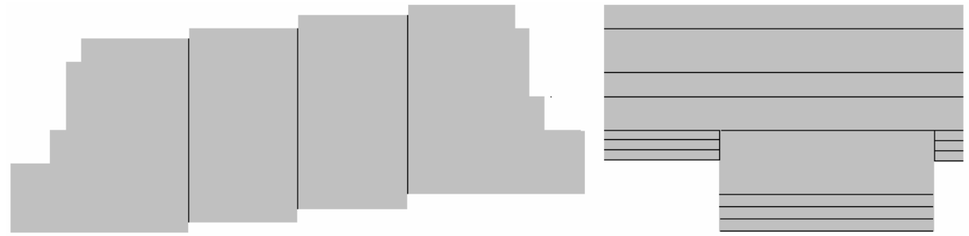
The subject site (Lots 414 and 415 on RP12779 at 12 Eighth Avenue, Coorparoo, Qld 4151 is 809m^2 in area and is currently occupied by a single lowset Queenslander house.



2. Performance, Acceptable Solution and Modelling Methodology Overview

The Acceptable Solution Building

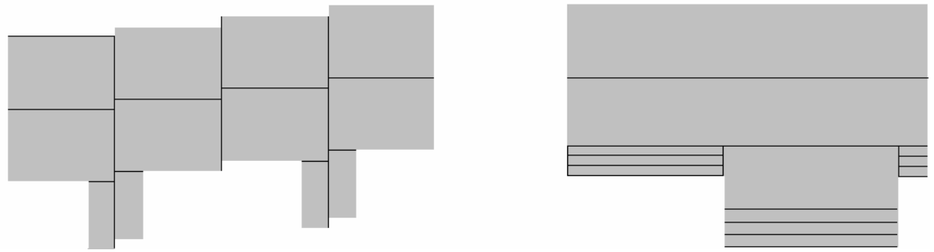
This was a building that followed the acceptable solution design guide as provided in LMR A13.1, A13.2 and A13.3. It had a 6m rear setback, it was built to the boundary walls for a length of 9m and a height of 3m, the then had side boundary wall setbacks that complied with the A13.1 requirements up to the building roof at 8.5m, see image on the right (front and side elevation shown).



Front Elevations (4 Townhouses) Acceptable Solution Side Elevations (4 Townhouses)

The Proposed 'Performance Solution' Design

In this case the design addresses the site situation i.e. that the site has a north downward sloping aspect, which means that the larger the rear setback the greater the shading caused to the neighbouring properties. The optimum solution was considered to require a moderate rear setback to allow at least 10m from building edge to the facing rear property, adopting a 'highset' building format to allow reduced site disturbance and create site lines and solar access across the site from adjoining neighbours. The side setbacks and building heights were made less than those allowable, at 2.5m and 8.2m respectively, see image on the right (front and side elevation shown).



Front Elevations (4 Townhouses) Performance Solution Side Elevations (4 Townhouses)

Computer Modelling Overview

Ecotect modelling software was used for this computer modelling exercise. A model was built for the subject site and the 6 properties that surround it (see Section 1 'Site Orientation'). The model was verified by taking images of the buildings created in the model and comparing with measurements and photographs taken from site.

This model was used to:

- To assess the development of impact on solar access and shading plan images were generated for the site and surrounding properties for the Equinox at 10am and 2pm; and also to assess the whole year solar access for the acceptable solution and performance solution designs (see Section 3); and;

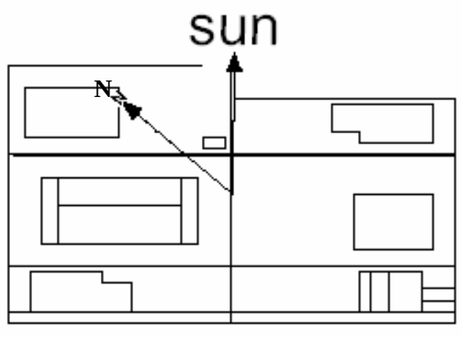
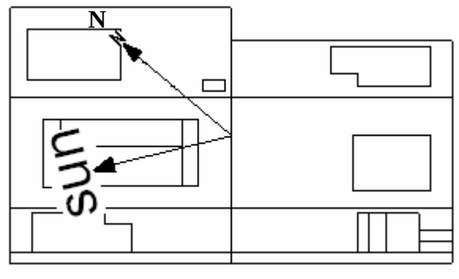
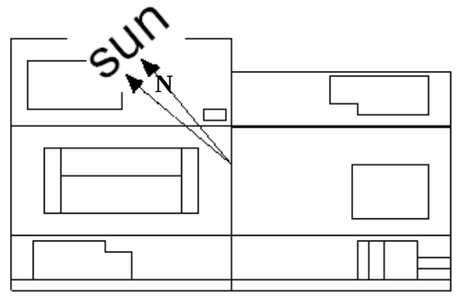
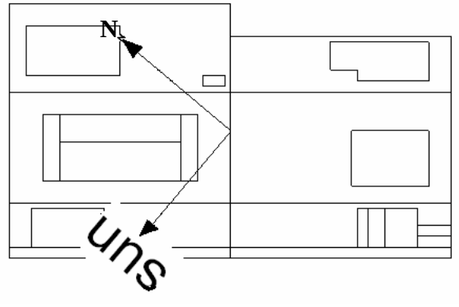
- To assess the development impact on sight lines and access to views a number of view images were generated – taken from windows or decks that face, or have exposure, to the subject development (see Section 4).

3. Solar Access Investigation

3.1 Reviewing Solar Access on the Equinox and Equinox Equivalent for the Site

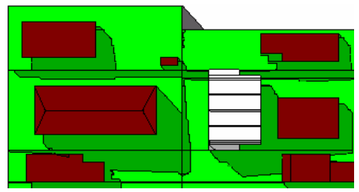
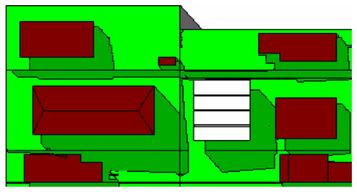
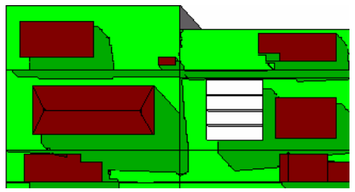
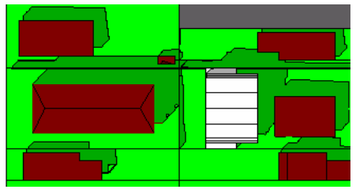
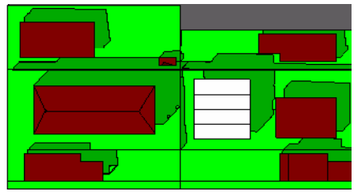
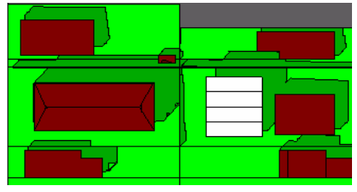
In the pre-Lodgement version of this Report extensive modelling for the Summer and Winter solstices was presented, including shadow diagrams at 2 hour intervals between 6am and 6pm on these dates (our model included the six dwellings surrounding the site and the existing trees growing in the lots surrounding the site. However at the DA pre-lodgement meeting with Council (held on the 24th September 2012) Council requested that the solar shading results for the Equinox at 10am and 2pm be presented and the model modified to show the trees removed.

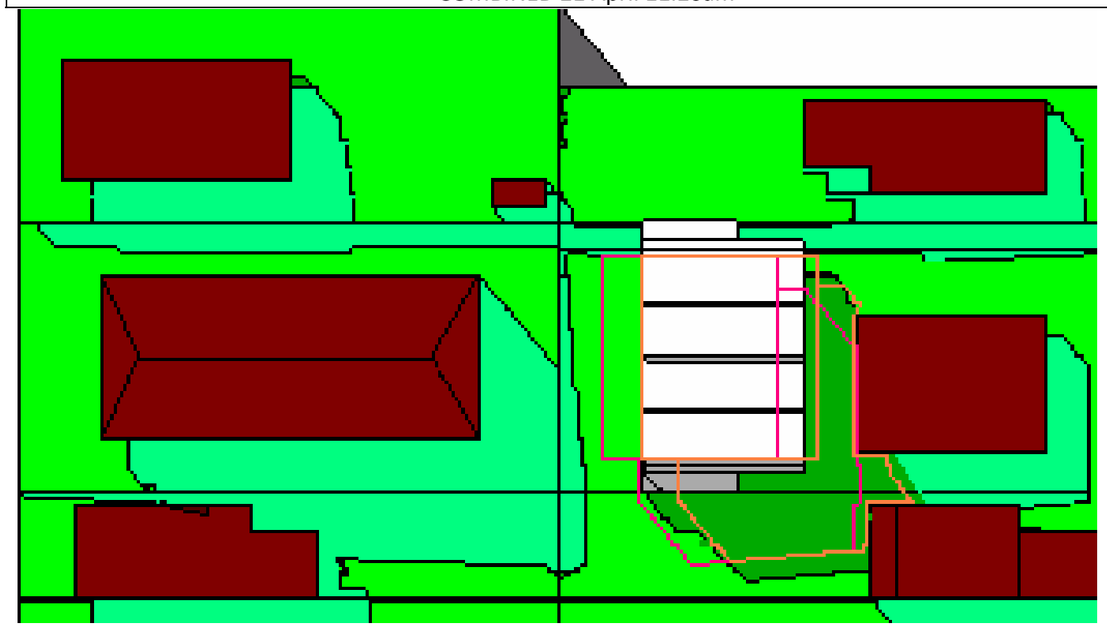
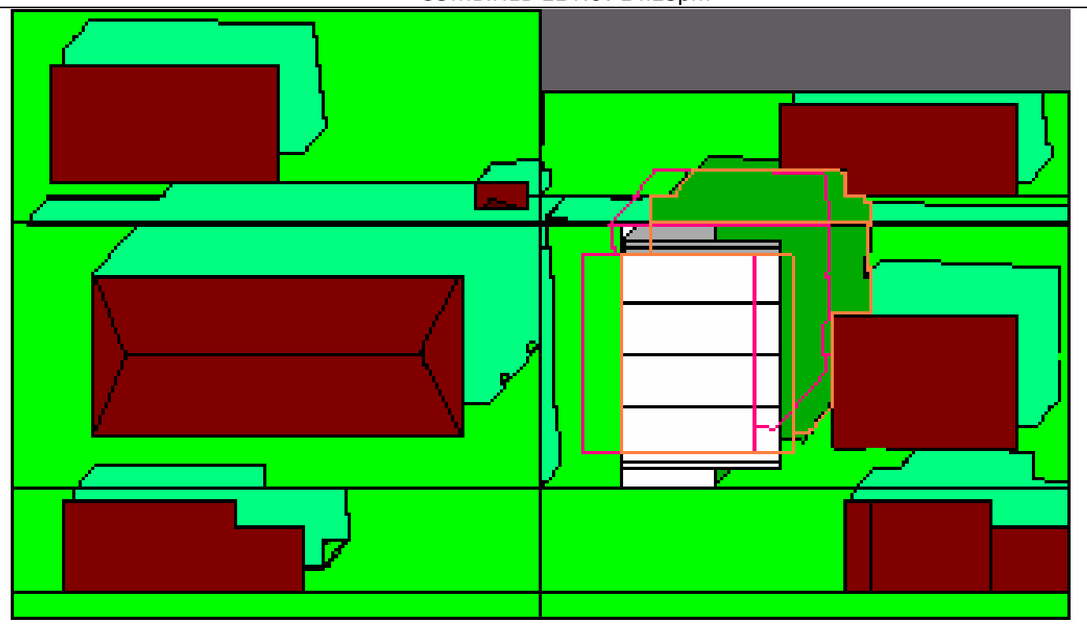
It is appreciate the equinox at 10am and 2pm afford equivalent views looking diagonally across to the two adjoining neighbours (i.e. 10am gives a view looking SW (azimuth of 49^0) and 2pm a view looking SE (azimuth of 307^0), and both at the same altitude of 50^0). This is the case for a site with a NS orientation. However, our site faces NW (at an azimuth of 50^0), therefore the 10am and 2pm times show non-equivalent views (one looks over at the neighbours garden and one almost due South. We have therefore shown views at 1120am on 21 April (giving azimuth and altitude of 10^0 and 50^0 respectively) and at 2.28pm on 21 November 430 pm (giving azimuth and altitude of 270^0 and 50^0 respectively) - which for our site gives views with better matched solar altitudes and azimuths. The table below shows these sun angle details:

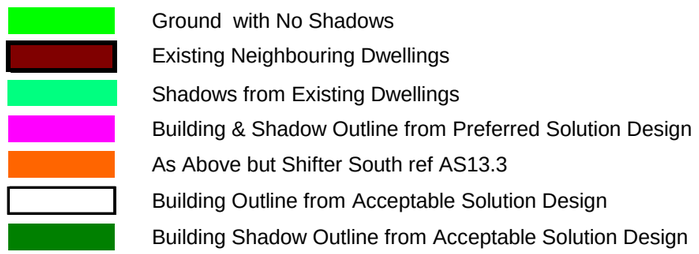
Equinox Sun Angles		**Selected Equivalent Sun Angles Relative to the Site**	
20 March 10.00am (same for 22 Sept in 2012)	20 March 14.00pm (same for 22 Sept in 2012)	21 April 11.20am	21 Nov 14.28pm
Site Latitude = -27.38 Longitudinal = 153.10 Model Bearing = 50.00 Sun Azimuth = 50.60 Sun Altitude = 51.35 Eye Azimuth = 180.00 Eye Altitude = 90.00	Site Latitude = -27.38 Longitudinal = 153.10 Model Bearing = 50.00 Sun Azimuth = 306.47 Sun Altitude = 50.09 Eye Azimuth = 180.00 Eye Altitude = 90.00	Site Latitude = -27.38 Longitudinal = 153.10 Model Bearing = 50.00 Sun Azimuth = 10.20 Sun Altitude = 51.52 Eye Azimuth = 180.00 Eye Altitude = 90.00	Site Latitude = -27.38 Longitudinal = 153.10 Model Bearing = 50.00 Sun Azimuth = 270.26 Sun Altitude = 49.91 Eye Azimuth = 180.00 Eye Altitude = 90.00
			

3.1.1 Reviewing Solar Access for the Equinox Equivalent for the Site

For each solar angle and time analyses three model scenarios have been considered, the first is for a design that complies with the A13.1 and A13.2 ‘acceptable solution’, the second if for the ‘performance solution’ that has been designed for this project, and the third is for the same design as in scenario 2 but with the entire building shifted forward to comply with the rear setback stated in the ‘acceptable solution’ A13.3.

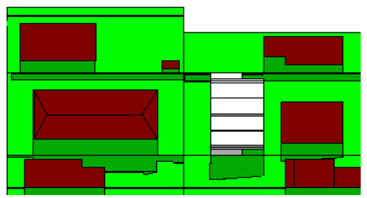
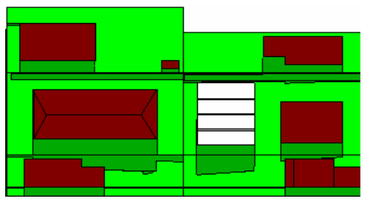
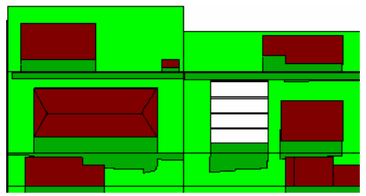
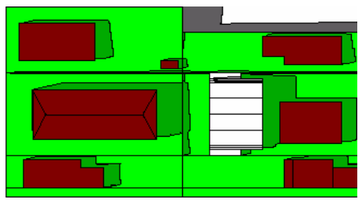
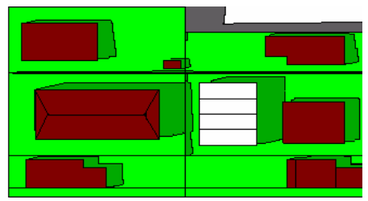
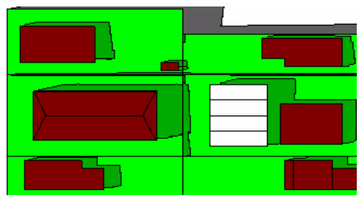
21 April 11.20am			21 Nov 14.28pm		
Acceptable Solution	Performance Solution	Performance Solution + AS13.3	Acceptable Solution	Performance Solution	Performance Solution + AS13.3
					

COMBINED 21 April 11.20am	COMBINED 21 Nov 14.28pm
	



3.1.2 Reviewing Solar Access for the Equinox

As mentioned above, the solar observations for 10am and 2pm on the Equinox (same results for the For each solar angle and time analyses three model scenario

20 March 10.00am			20 March 14.00pm		
Acceptable Solution	Performance Solution	Performance Solution + AS13.3	Acceptable Solution	Performance Solution	Performance Solution + AS13.3
					

3.1.3 Key Observations – Solar Equinox and Equinox Equivalent for the Site

1. From both the solar equinox and solar equinox equivalent solar shading diagrams (see above) the Performance Solution has least shading impact on the neighbouring sites and does not impact on the sides (walls) of the neighbouring dwellings.

2. From both the solar equinox and solar equinox equivalent solar shading diagrams (see above) the Acceptable Solution can be seen to cause more shading to the neighbouring sites to the East and West.

3. From both the solar equinox and solar equinox equivalent solar shading diagrams (see above) the Acceptable Solution and the Performance Solution+AS13.3 can be seen to cause similar levels of shading to the dwelling situated to the South (the existing building at 12 Eighth Avenue).

4. Generally, the Southerly falling shadows from the existing dwellings can be seen to be longer for the dwellings situated on the left side (in Ninth Avenue) than for those on the right side (in Eighth Avenue). The reason for this is that the site slope for sites on the right side is much steeper than for those on the left (ignoring the middle three storey multi-unit block in the middle on the left which has longer shadows as it is much taller than the other existing dwellings). The steeper North facing slopes effectively shorten the solar shadows – this phenomenon is explored further in Section 5 of this Report.

5. Generally, it can be seen that the neighbouring sites to the North (i.e. on Ninth Avenue) receive no shading from dwelling located to the South (i.e. in Eighth Avenue), and in particular receive no shading from the proposed performance solution building.

6. These results give a good indication of site shading at moderate sun altitudes (i.e. at mid morning and mid afternoon) but do not show the impact at more severe sun altitudes which will impact the dwellings at times when the occupants are generally at home, i.e. in the early morning and in the late afternoon and early evening. A complete analysis of the effect of the Acceptable Solution and the Performance Solution buildings on the neighbouring dwellings throughout the whole year has been presented in the Section below, see Section 3.2:

3.2 Whole of Year Solar Shading and Access Modelling Review

The modelling analysis has looked at three scenarios; Pre Development; with the Acceptable Solution; and with the Performance Solution (also referred to as ‘Proposed Design’) and has included the existing dwelling at 12 Eight Avenue, and the neighbouring properties at 10 and 16 Eighth Avenue, and 7, 9 and 13 Ninth Avenue.

3.2.1 Assessment of Areas and Surfaces to be Modelled

For each scenario the modelling has evaluated the direct solar light that falls on various surfaces, including the horizontal surfaces of ground and roofs; and the vertical surfaces of the windows and decks and verandas. Further, we have not included the shading effects of trees in this analysis. The reason for this is that whilst the buildings are ‘permanent features’ which generally will remain for many decades, the landscape and trees tend to come and go.

It may be argued that there is no reason to include ground area in this assessment, but it is the Project Developer's opinion that the provision of light to the grounds is as important as that to the dwelling, and possibly even more important as indoor light can be easily produced by ether roof lights or solar powered LED lighting, but light in the garden can not, and limiting the light in the garden has serious negative impacts to the ability to grow plants and food.

3.2.2 Understanding the Modelling Results – 'Area Results' and '% Results'

Area results: Where the ground area of a site is say, 300m^2, and the result for direct solar light is 150m^2, this means that during the hours of 06:00 to 18:00 an area of 150m^2 will be in direct sunlight each and every day through a whole year. Note, the results are derived from analysing a complete year of solar modelling data and the overall result has been reported as a daily average. So whilst the area of ground receiving direct sun light changes throughout the day and seasons, the average result is telling us that on average for each hour during the day this amount of area received direct sun light. The 'area result' is providing a 'quantifiable' rather than relative result as provided by '% results'.

% results: Where the amount of direct sun light has been reported as a %, the result is relative. Although the % results have been derived from exactly the same modelling data as that used for the 'area results', the meanings are not the same. For example, the result for an area receiving direct sunlight for the ground may be 30% and for a window 80%. This may give the impression that the result is better for the window, but clearly the ground covers a much larger area than a window, so in quantifiable terms the ground is likely to be subject to much more solar light than the window.

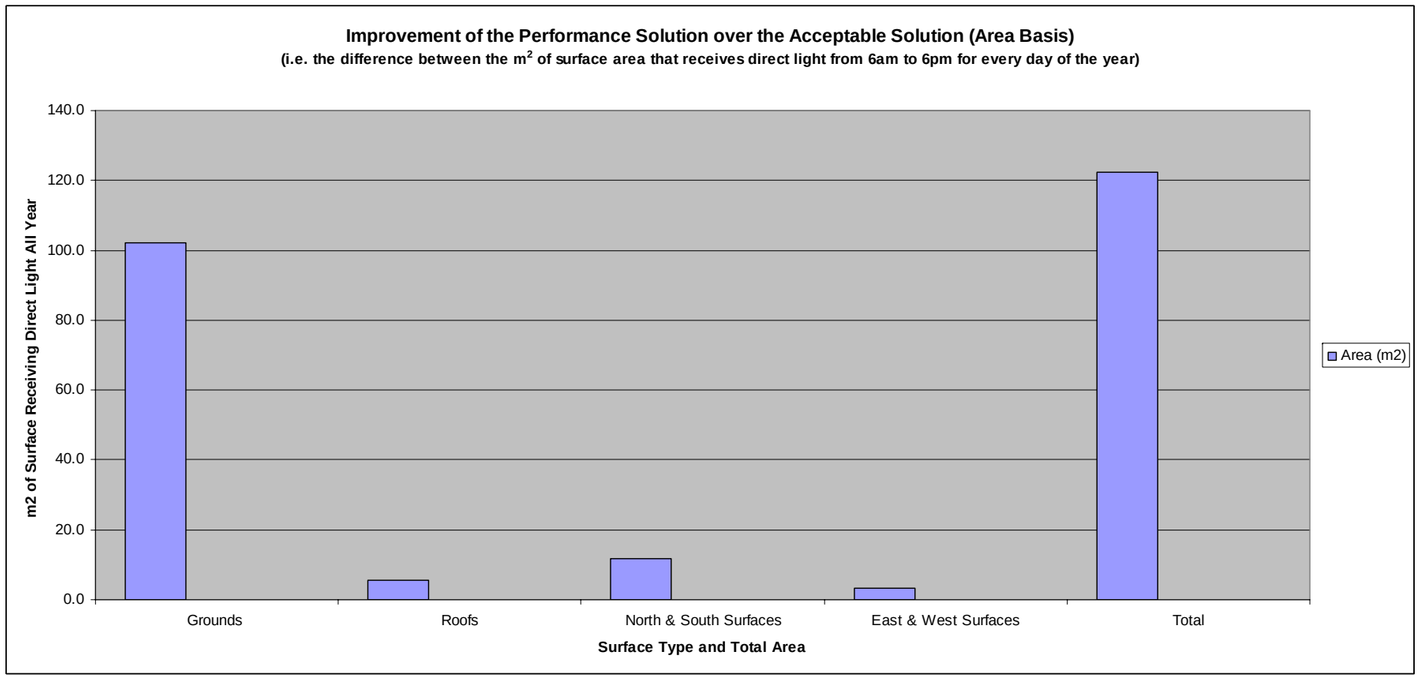
3.2.3 Results – Assessment of Direct Solar Light Access to the Site and Neighbouring Properties

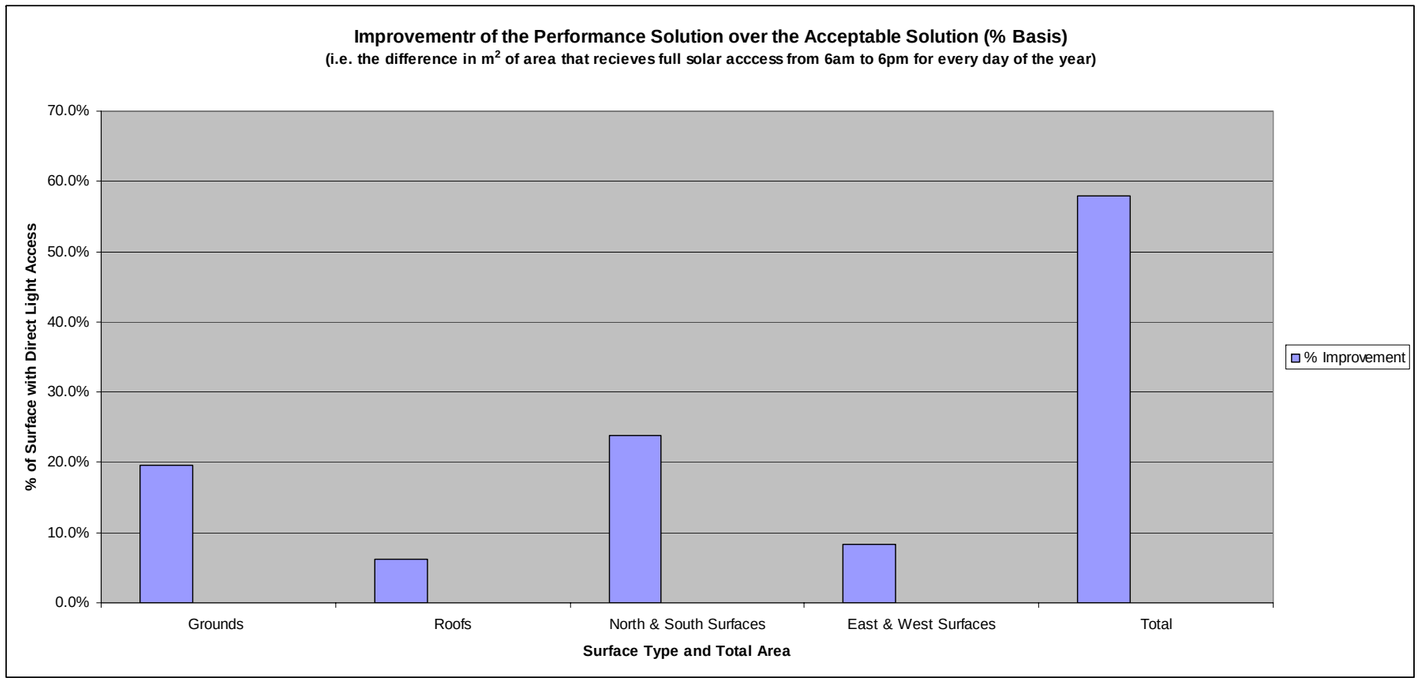
The table below shows the average annual direct solar light that reaches the various referenced surfaces. It shows the results in % terms, i.e. the % of the surface area that received direct solar light; and in m2, i.e. the size of area that received direct solar light. Where a 'NA' has been given in the table, this means that there is no window or deck in that property that is affected by the proposed development (either for the 'acceptable solution' or 'performance solution' development). These results are look at how the 'acceptable solution' and the 'performance solution' affect the surrounding buildings and land. Over the page the results showing the improvement of the Performance Solution over the Acceptable Solution have been shown.

Assessment of Direct Light Access to Neighbourin Dwellings																								
		On Ground/Gardens Neighbours in…						On Roofs Neighbours in…						On N/S Windows/Verandahs Neighbours in…						On E/W Adjacent Windows Neighbours in…						
		Ninth Ave.			Eighth Ave.			Ninth Ave.			Eighth Ave.			Ninth Ave. (S)			Eighth Ave. (N)			Ninth Ave.			Eighth Ave.			
Street No.		7	9	13	10	12	16	7	9	13	10	12	16	7	9	13	10	12	16	7	9	13	10	12	16 V*	16 W*
Pre Development	%	61	55	64	71	66	64	76	86	91	93	93	92	18	30	33	65	60	58	28	29	NA	59	NA	32	33
	m^2	173	232	313	240	436	182	88	331	140	142	58	128	9	30	16	32	30	29	17	35	NA	36	NA	4	20
Acceptable Solution	%	59	48	59	61	32	60	75	85	91	93	87	87	15	28	32	65	30	52	30	34	NA	41	NA	23	26
	m^2	168	202	289	207	211	169	87	328	139	142	55	122	8	28	16	33	15	26	18	40	NA	25	NA	3	15
Performance Solution	%	59	53	64	63	40	60	75	85	91	93	92	89	15	28	32	66	53	53	30	34	NA	42	NA	27	29
	m^2	167	225	311	213	262	170	87	328	139	142	58	125	8	28	16	33	26	27	18	40	NA	25	NA	3	18

(16 V* and 16 W* are the Weste facing veranda and the west facing side of the house of 16 Eighth Avenue respectively)

Results – Graphical Comparisons





Key Observations

1. It shows the overall improvement in increase in surface area that receives direct solar light in just over 120 m^2. Or, on an annual basis, 43,800m^2 more surface area of neighbouring sites will receive direct light.

2. It shows the overall improvement in percentage terms for all the surface types is just over 55%.

3. On an area basis it shows the greatest benefit of the Performance Solution is the increase in solar access to the grounds of the neighbouring sites.

4. On a percentages basis it shows the greatest benefit of the Performance Solution is the increase in solar access to north facing surfaces of the dwellings in Eighth Avenue (inspection of the results table above shows that neither option impacts noticeably on the South facing surfaces of the dwellings in Ninth Avenue.

5. On an area and percentage basis it shows that there is very little difference in impact on the roofs and East and West surfaces for the two options.

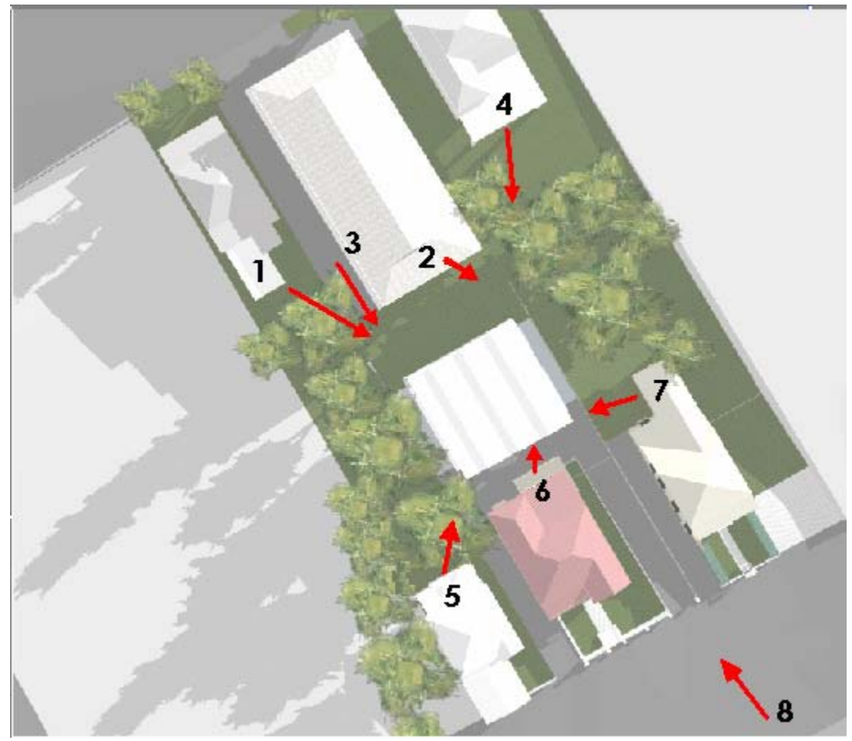
4. Privacy Investigation

4.1 Overview

The Following 8 pages present images for the views detailed below for the scenarios of; pre-development; with the acceptable solution design; and with the performance solution, or 'proposed design'. Observations for the extent of views for these scenarios have also been provided. It should also be noted that the images used for both the acceptable solution design and the performance solution have not been rendered with fine detail – this is especially relevant with regard to the 'performance solution' ('proposed design') which lacks the detail provided on the DA submission drawings.

The Eight Views Considered

- View 1 7 Ninth Avenue (through south deck)
- View 2 9 Ninth Avenue (through south windows)
- View 3 9 Ninth Avenue (through west face)
- View 4 13 Ninth Avenue (through south deck)
- View 5 10 Eighth Avenue (through north deck)
- View 6 12 Eighth Avenue (through north deck on the Queenslander)
- View 7 16 Eighth Avenue (through deck on north)
- View 8 View from the road (Eighth Avenue)



View from 7 Ninth Avenue

(Through rear deck) (Image taken on 18th August at 16:30)

Site Plan Showing the site with 'Acceptable Solution' .The yellow marker shows the location from where the views have been taken.

Key Points:

- Pre Development
  - Looking south east from the deck at the rear of 7 Ninth Avenue the existing building at 12 Eighth Avenue is barely discernable.
- With 'Proposed Design'
  - Looking south east from the deck at the rear of 7 Ninth Avenue the north west corner of the 'Proposed Design' building at 12 Eighth Avenue is visible.
- With 'Acceptable Solution'
  - Looking south east from the deck at the rear of 7 Ninth Avenue the 'Acceptable Solution' building at 12 Eighth Avenue is barely discernable.

View from 9 Ninth Avenue

(Through South windows) (Image taken on 18th August at 16:30)

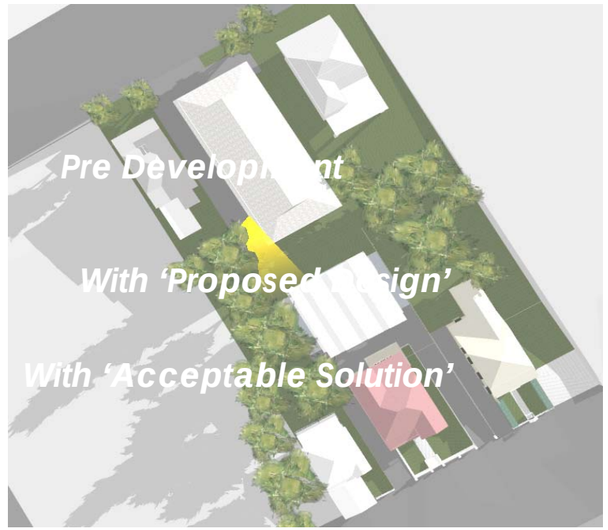
Site Plan Showing the site with 'Acceptable Solution' .The yellow marker shows the location from where the views have been taken.

Key Points:

- Pre Development
  - Looking south from the south facing bedroom window of 11 Ninth Avenue the existing building at 12 Eighth Avenue is visible through the branches of the existing trees.
- With 'Proposed Design'
  - Looking south from the south facing bedroom window of 11 Ninth Avenue the 'Proposed Design' building at 12 Eighth Avenue is clearly visible (note – several trees shall be grown along the rear boundary which will, in time, limit this view).
- With 'Acceptable Solution'
  - Looking south from the south facing bedroom window of 11 Ninth Avenue the 'Acceptable Solution' building at 12 Eighth Avenue is clearly visible (note – several trees shall be grown along the rear boundary which will, in time, limit this view).

View from 9 Ninth Avenue

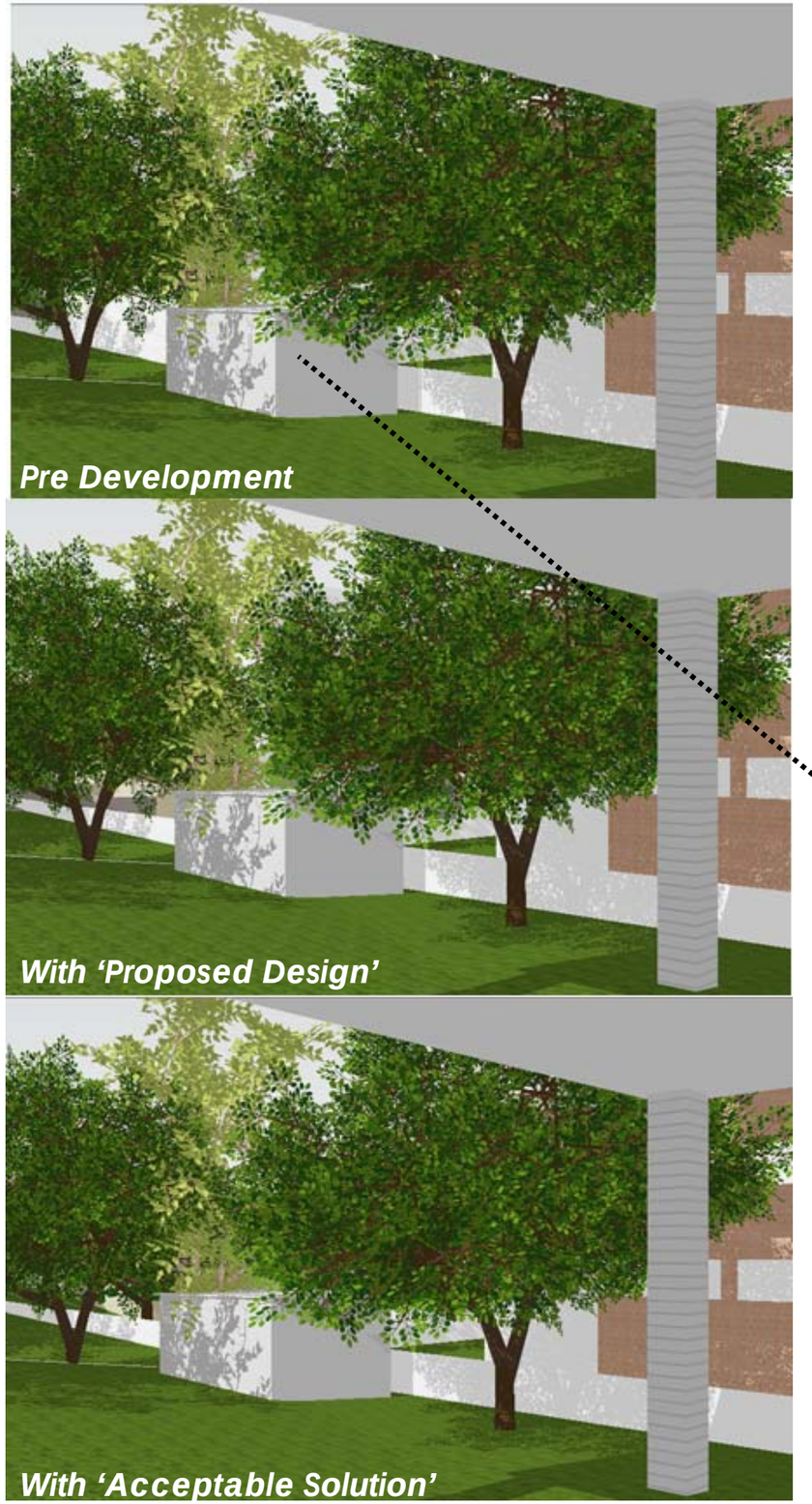
(Through West face) (Image taken on 18th August at 16:30)



Site Plan Showing the site with 'Acceptable Solution' .The yellow marker shows the location from where the views have been taken.

Key Points:

- Pre Development
  - Looking south from the west facing second floor level living room balcony of 11 Ninth Avenue the view of the existing building at 12 Eighth Avenue is largely screened by existing trees.
- With 'Proposed Design'
  - Looking south from the west facing second floor level living room balcony of 11 Ninth Avenue the view of the 'Proposed Design' building at 12 Eighth Avenue is clearly visible (note – several trees shall be grown along the rear boundary which will, in time, limit this view).
- With 'Acceptable Solution'
  - Looking south from the west facing second floor level living room balcony of 11 Ninth Avenue the view of the 'Acceptable Solution' building at 12 Eighth Avenue is clearly visible (note – several trees shall be grown along the rear boundary which will, in time, limit this view).



View from 13th Ninth Avenue

(Through South deck) (Image taken on 18th August at 09:00)

Site Plan Showing the site with 'Acceptable Solution' .The yellow marker shows the location from where the views have been taken.

Key Points:

- Pre Development
  - Looking south from the deck at the rear of 13 Ninth Avenue the existing building at 12 Eighth Avenue is barely discernable and is probably not visible at all.
  - This is a small 'shed like' structure in rear corner 13 Ninth Avenue's garden.
- With 'Proposed Design'
  - Looking south from the deck at the rear of 13 Ninth Avenue the north east corner of the 'Proposed Design' building at 12 Eighth Avenue is barely visible. Proposed rear and side boundary trees will further limit views.
- With 'Acceptable Solution'
  - Looking south from the deck at the rear of 13 Ninth Avenue the north east corner of the 'Acceptable Solution' building at 12 Eighth Avenue is barely discernable. Proposed rear and side boundary trees will further limit views.

View from 10th Eighth Avenue

(Through North deck) (Image taken on 14th January at 08:00)

Site Plan Showing the site with 'Acceptable Solution' .The yellow marker shows the location from where the views have been taken.

Key Points:

- Pre Development
  - Looking north from the deck at the rear of 10 Eighth Avenue the existing building at 12 Eighth Avenue is visible but is also heavily obscured by several trees that grow in its garden.
- With 'Proposed Design'
  - Looking north from the deck at the rear of 10 Eighth Avenue the 'Proposed Design' building at 12 Eighth Avenue is visible but provides views of about 15m to the nearest part of the building at ground level.
- With 'Acceptable Solution'
  - Looking north from the deck at the rear of 10 Eighth Avenue the 'Acceptable Solution' building at 12 Eighth Avenue is clearly visible.

View from 12th Eighth Avenue

(Through North deck on Queenslander) (Image taken on 14th January at 08:00)

Site Plan Showing the site with ‘Acceptable Solution’ .The yellow marker shows the location from where the views have been taken.

Key Points:

- Pre Development
  - Looking north from the deck at the rear of 12 Eighth Avenue the existing three story building at 11 Ninth Avenue is visible but is also partially obscured by several trees that grow in its garden.
- With ‘Proposed Design’
  - Looking north from the deck at the rear of 12 Eighth Avenue the ‘Proposed Design’ building at 12 Eighth Avenue is visible but provides views right through to the existing three story building at 11 Ninth Avenue, and over to the garden of 16 Eighth Avenue (note – several trees shall be grown along the side boundary which will, in time, limit this view).
- With ‘Acceptable Solution’
  - Looking north from the deck at the rear of 12 Eighth Avenue the ‘Acceptable Solution’ building at 12 Eighth Avenue is clearly visible and blocks off any views to the north.

With ‘Acceptable Solution’

With ‘Proposed Design’

With ‘Acceptable Solution’

View from 16 Eighth Avenue

(Through deck on north) (Image taken on 28th December at 06:40)

Site Plan Showing the site with ‘Acceptable Solution’ .The yellow marker shows the location from where the views have been taken.

Key Points:

- Pre Development
  - Looking west from the deck at the rear of 16 Eighth Avenue the existing three story building at 11 Ninth Avenue is barely visible as it is obscured by trees growing in the garden of 12 Eighth Avenue.
  - The garden 12 Eighth Avenue is clearly visible.
- With ‘Proposed Design’
  - Looking west from the deck at the rear of 16 Eighth Avenue the ‘Proposed Design’ building at 12 Eighth Avenue is clearly visible.
  - A view over to 10 Eighth Avenue is also provided.
  - Views out across the ground floor level underneath the ‘Proposed Design’ building are also available.
  - Note – several trees shall be grown along the side boundary which will, in time, limit these views.
- With ‘Acceptable Solution’
  - Looking west from the deck at the rear of 16 Eighth Avenue the ‘Acceptable Solution’ building at 12 Eighth Avenue is clearly visible and blocks off any other views to the west.
  - Note – several trees shall be grown along the side boundary which will, in time, limit these views.

View from the Road (Eighth Avenue) (Image taken on 28th December at 06:40)

Site Plan Showing the site with 'Acceptable Solution' .The yellow marker shows the location from where the views have been taken.

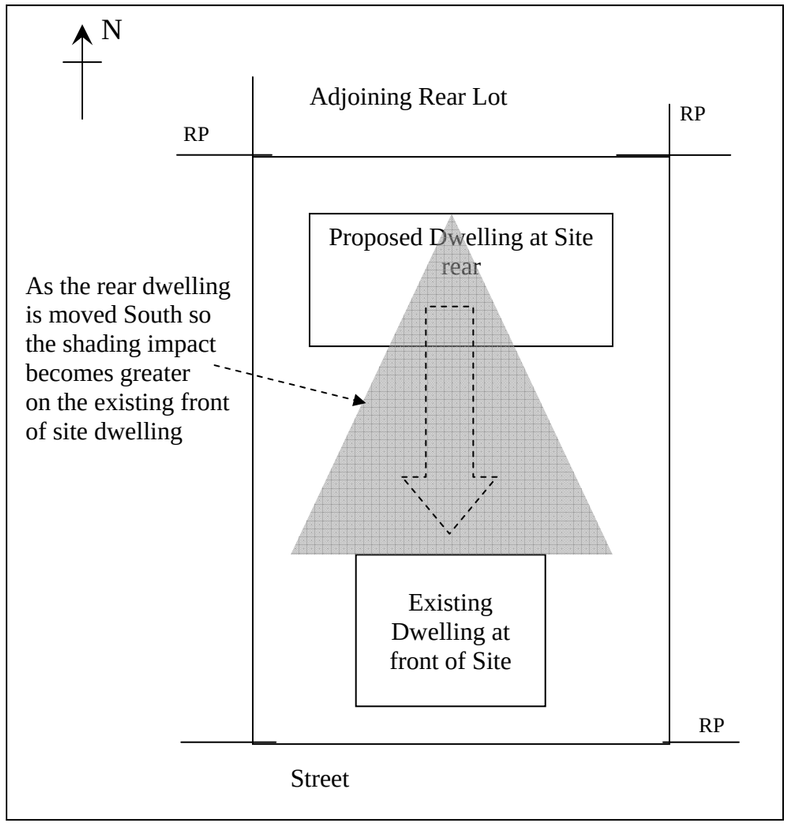
Key Points:

- Pre Development
  - Looking north west from the in front of 12 and 16 Eighth Avenue the roof of the three story apartment block at 11 Ninth avenue is just visible.
- With 'Proposed Design'
  - Looking north west from the in front of 12 and 16 Eighth Avenue the 'Proposed Design' building at 12 Eighth Avenue is visible.
  - Views under the 'Proposed Design' building are also available.
  - The 2m setback to the side boundary means views right down to the bottom of the site are available.
  - Note – the 'Proposed Design' building's first and second floor are some 27m away from the front boundary of the site.
  - Note – several trees shall be grown along the side boundary which will, in time, limit these views.
- With 'Acceptable Solution'
  - Looking north west from the in front of 12 and 16 Eighth Avenue the 'Acceptable Solution' building at 12 Eighth Avenue is visible.
  - The 'Acceptable Solution' building is built to the side boundary so no viewst down to the bottom of the site are available.
  - Note – the 'Acceptable Solution' building's ground, first and second floor are some 24m away from the front boundary of the site.
  - Note – several trees shall be grown along the side boundary which will, in time, limit these views.

5. Subtropical Design Precedents

Queensland Subtropical Design Guidelines

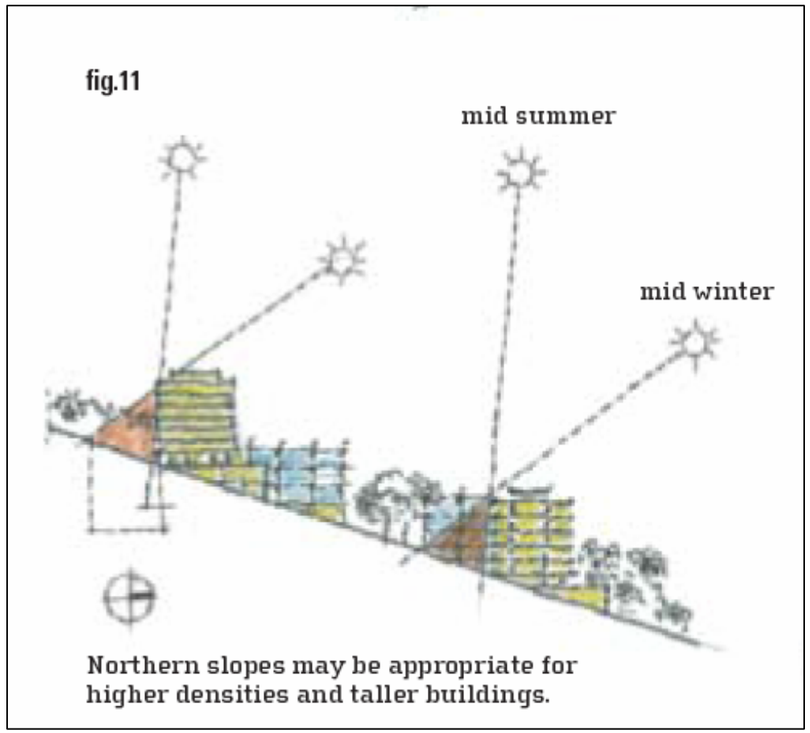
The Project designers have used common sub-tropical residential design principles in the design of this project, one of which is how to design for North sloping sites facing slopes. In brief for a North sloping site the following design principles apply for the situation where a rear lot is being developed, see figures below. This shows that In the case of a North sloping site (as is the case with the subject Site) the larger the rear setback, the worse the outcome for daylight access to the surrounding properties and the better the case for building taller developments in order to capture what Northern sun is available (i.e. the Northern neighbouring property will create shade for most of the time).



This approach is also in line with that espoused in the Council's design guide, Subtropical Design in South East Queensland a Handbook for Planners, Developers and Decision Makers (2010), page 28 and 29. This guide states……

……"*North-facing slopes offer high potential for both natural ventilation and solar access to buildings. As buildings and trees on north-facing slopes cast shorter shadows than they would on flat land, taller buildings may be appropriate on these slopes, providing that allotments are deep enough to allow air and sun access to buildings further up the slope*."

This guide also provides a diagram (figure 11 on page 28 of the guide) – a copy of this diagram is also shown below.



6. Case Precedents - Examples of Local Rear Setbacks

Overview

The map shown below identifies six local examples where rear setbacks are less than the 6m defined in Acceptable Solution A13.3 (City Plan, Chapter 5, Low and Medium Density Residential Code). Five of these cases are where townhouses have been built on the site.

Around Coorparoo and Greenslopes there were many more examples found, but it was decided to limit those detailed here to those sites within the same block or just one street distant from the subject site.

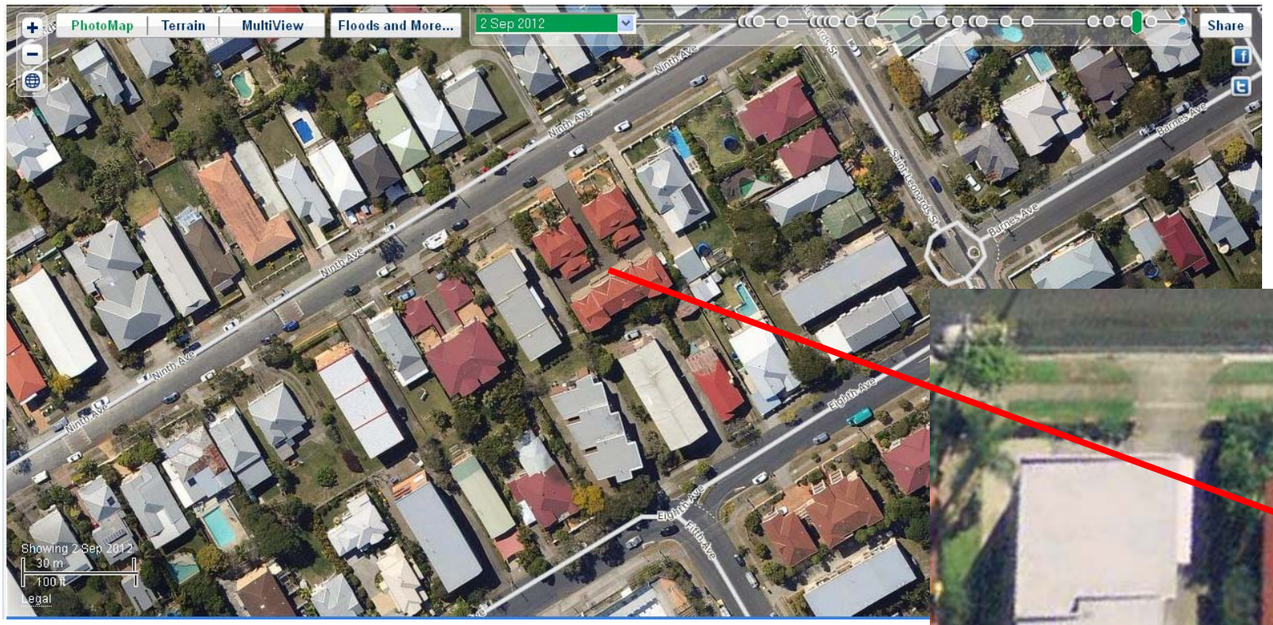
List of Sites Identified (further details shown on the following pages)

1. 46 Ninth Avenue
2. 10 Ninth Avenue
3. 32 Eighth Avenue
4. 17 Ninth Avenue
5. Subject Site (12 Eighth Avenue)
6. 33 St Leonard's Street
7. 35 St Leonard's Street

-

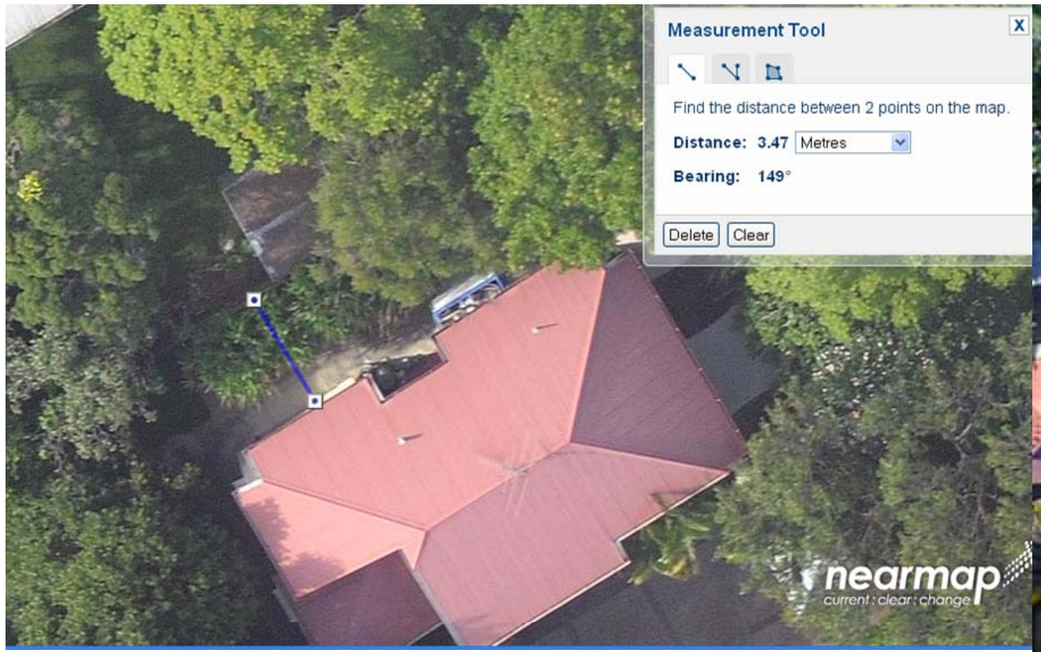
46 Ninth Avenue – 8 Townhouses/Units

First, second and third story with 5m setback (measured on site)



10 Ninth Avenue – 4 Townhouses

First Floor section with a 3.5m setback

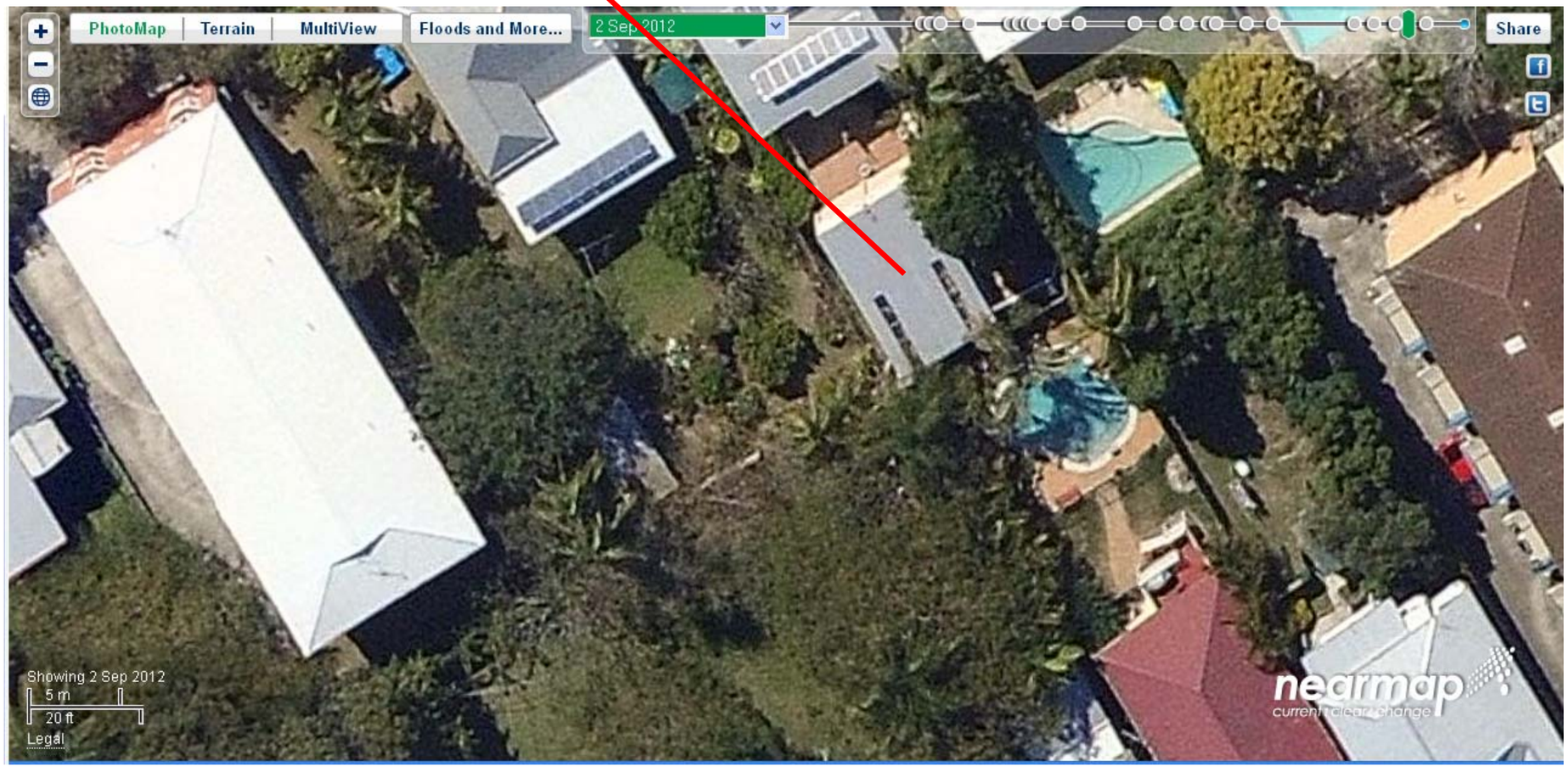


32 Eighth Avenue – 2 Townhouses

First Floor section with a 3m setback

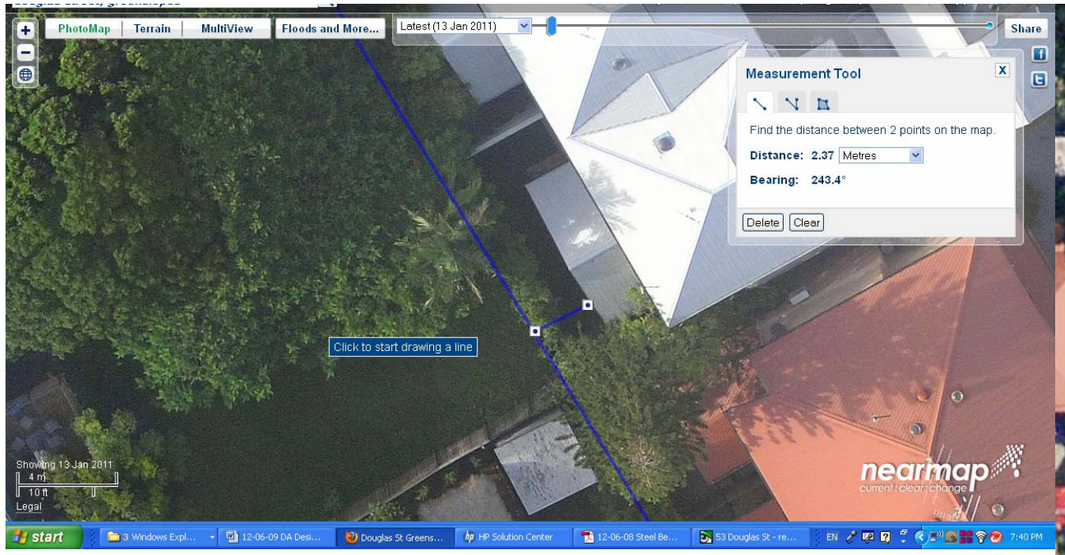
17 Ninth Avenue

Building built to rear boundary



33 St Leonard's Street – 3 Townhouses with Timber and Tin at the Site Front

First Floor section with a 3m setback



35 St Leonard's Street – 3 Townhouses with Timber and Tin at the Site Front

First Floor section with a 3m setback