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## 1.0 INTRODUCTION

### INSTRUCTION

We have been instructed to consider the proposals for the above property, with reference to the BRE Handbook "Site Layout Planning for Daylight and Sunlight. A Guide to Good Practice", to establish whether they meet the Guidelines set out in this document in relation to sunlight and daylight to the neighbouring properties, as well as achieving good daylighting to the units within the scheme.

### PRINCIPLES

Attached as Appendix A are the Principles of Daylight and Sunlight.

### INFORMATION

We have been provided with a copy of DVM Architects drawings referenced "revised February 2009 for planning re-submission scheme" and have carried out a site inspection during which photographs of the neighbouring properties were taken to enable the position of the windows to be established.

### PROPOSALS

The proposals are to construct on the vacant site a block of flats over ground and four upper floors as indicated on drawing numbers 1282-01, 03, 09 and 10 attached as Appendix B.

## 2.0 ANALYSIS

The only neighbouring residential property that it is considered needed to be analysed was 6 St Augustine Road.

### 2.1 DAYLIGHT

With regard to daylight to the neighbouring residential properties, we have considered the Vertical Sky Component (VSC). This establishes the amount of daylight enjoyed on the face of the window.

The BRE Guidelines state that if the VSC calculated at the centre of each window is 27% or more then enough skylight should be reaching the window. If with the new development in place the window does not achieve 27% VSC but is more than 0.8 times its former value then the guidelines state that skylight is unlikely to be seriously affected.

There are a number of windows in the flank elevation of 6 St Augustine Road at lower ground, first and second floor.

The correspondence the Local Planning Authority received from the owners of no. 6 St Augustine Road, in relation to the earlier planning application, confirmed that the windows to the upper floors serve non habitable rooms, as we had established from our on site observations.

In relation to the ground floor, there appear to be four windows. Concerning the window closest to St Augustine Road, we note that the neighbours suggest that this serves a bedroom and not as we have stated in our previous report a dressing room.

To assist us in establishing the internal configuration of the neighbouring property we reviewed the drawings as part of the planning application for Flat 4, 6 St. Augustines Road (Ref: 2006/0214/P). The approved floor plans are attached as Appendix C.

Whilst the permission has not been implemented, the drawings indicate that currently the room in question is a dressing room and has consent to be changed to a study. In view of this and the fact that the room can only be accessed either via Bedroom 1 and the utility room or the bathroom and the utility room and also taking into consideration the size of the room, the uses indicated on the planning drawings are reasonable.

Our Vertical Sky Component analysis for the dressing room/study window shows that with the implementation of the proposals there will be a reduction in the VSC of more than 20% from the existing and that the VSC will be below 27%.

In view of the above, and in accordance with the BRE Guidelines we have calculated the Average Daylight Factor (ADF) for the room, based on room layout indicated on the planning drawings for this property.

Within the BRE Guidelines, it refers to the British Standard BS8206 Part 2, within which it contains advice and guidance on interior daylighting. This document recommends that there are minimum ADF values for different rooms, these being 2% for kitchens, 1.5% for living rooms and 1% for bedrooms.

The Average Daylight Factor analysis for this room shows that with the implementation of the proposals it will still achieve an ADF of 1.12% which would be appropriate for a room of this nature.

The next window along this elevation serves a bathroom and therefore does not need to be analysed.

This then leaves the partially glazed front door and the final window. The neighbours suggest that these serve the main living room area, however as can be seen from the drawings attached as Appendix C, the main living room area is separated from the area lit by these windows by a wall. As a result, the principle daylight source for the room is provided via windows in its rear elevation. The windows in the flank elevation would therefore appear to only serve circulation space and therefore in accordance with the BRE Guidelines a daylight and sunlight analysis is not required. This is supported by the fact that the owner of this property has obtained planning consent to glaze over the side passage in front of these windows, which itself will restrict the access of daylight.

## 2.2 SUNLIGHT

The guidelines require that all windows within 90% of due south are considered. If the window achieves 25% of annual probable daylight hours, including at least 5% of annual probable sunlight hours during the winter months or more than 0.8 times its existing value, the implementation of the proposals should not have an adverse affect on sunlight.

The dressing room will enjoy 19.72% APSH and 4.23% during the winter. Whilst this would not achieve the sunlight levels set in the BRE guidelines, the document does state that: *"care needs to be taken in applying these guidelines"* and *"planning authorities may wish to use different criteria based on the requirements for sunlight in particular types of developments in particular areas"*.

Given the use of this part of the property as a dressing room, levels of sunlight are of lesser importance and as such we consider that this level of sunlight is acceptable.

### 3.0 CONCLUSION

In relation to daylight the guidelines as set out in the BRE Handbook "Site Layout Planning for Daylight and Sunlight, A Guide to Good Practice" are met in that all windows in the neighbouring property of 6 St Augustine Road that need to be analysed achieve the recommendations.

Concerning sunlight, whilst the one room concerned does not achieve the Guidelines, we consider that the impact is acceptable having regard of room use and location of the properties and the window itself.

In summary therefore the proposals for the above site are not considered to materially affect the daylight and sunlight enjoyed by the neighbouring residential properties and will achieve the aims of the guidelines set out in the BRE Handbook "Site Layout Planning for Daylight and Sunlight, A Guide to Good Practice".

This report is solely for the benefit of Damsonetti Construction Limited and the benefit cannot be transferred to any other party without the express written consent of chp Chartered Surveyors.

*chp Chartered Surveyors*

**chp Chartered Surveyors**

## APPENDIX A

## PRINCIPLES OF DAYLIGHT AND SUNLIGHT

In 1991 the Building Research Establishment (BRE) published a handbook called "*Site Layout Planning for Daylight and Sunlight. A Guide to Good Practice.*"

As stated within the Introduction of this document, the main aim is:-

*"To help to ensure good conditions in the local environment, considered broadly, with enough sunlight and daylight on or between buildings for good interior and exterior conditions."*

Within the introduction the document goes onto state:-

*"The advice given here is not mandatory and this document should not be seen as an instrument of planning policy. It's aim is to help, rather than constrain the Designer. Although it gives numerical guidelines, these should be interpreted flexibly..."*

It must therefore be appreciated as can be seen from the above extracts of the Introduction of this document and reiterated throughout, the handbook is for guidance only.

### DAYLIGHT

When considering daylight, the handbook introduces a number of ways of assessing this. The first check is to establish whether the proposals will subtend an angle of  $25^{\circ}$  from the centre of the window. If it does not then it is considered there will be good daylight.

#### (i) **No Sky Line**

This divides those areas that can see direct daylight from those which cannot and helps to indicate how good the distribution of daylight is in a room. The guidelines is that, should the implementation of a scheme result in the area receiving direct skylight less than 0.8 times the existing area, then this will be noticeable to the occupier.

#### (ii) **Vertical Sky Component (VSC)**

This may be calculated using either the skylight indicators of Waldram Diagrams contained within the handbook and is the ratio of the direct sky illuminance falling on



the vertical wall at a reference point, to the simultaneous horizontal illuminance under an unobstructed sky.

The principle is that from the face of a window, with no obstruction 50% of the hemisphere is visible which equates to 40% VSC.

The Handbook sets out different guidelines when considering both new developments and existing buildings adjacent to a development, but in both situations these are applicable to principal rooms, such as kitchens and living rooms.

### **New Developments**

In general a building will retain the potential for good interior diffuse lighting provided that on all its main faces:-

- (a) an obstruction, measured in a vertical section perpendicular to the main face, from a point 2m above ground level, subtends an angle of more than  $25^{\circ}$  to the horizontal.

or

- (b) if (a) is not satisfied, then all points on the main face on a line 2m above ground level are within 4m (measured sideways) of a point which has a vertical sky component of 27% or more.

### **Existing Buildings**

If any part of a new building or extension measured in a vertical section perpendicular to a main window wall or an existing building, from the centre of the lowest window, subtends an angle of more than  $25^{\circ}$  to the horizontal, then the diffuse daylighting of the existing building may be adversely affected. This will be case if either:-

- (a) the VSC measured at the centre of an existing main window is less than 27% and less than 0.8 times its former value.

or

- (b) the area of the working plane level in a room which can receive direct sunlight is reduced to less than 0.8 times its former value.

**(iii) Average Daylight Factor (ADF)**

This takes into account not only the obstruction externally, but also the size of the window concerned and the area of the room it serves. In addition, depending on the nature of the room, the handbook sets out different levels of ADF, with kitchens only being 2%, lounges 1.5% and bedrooms 1%.

In summary, VSC gives a good indication as to whether sufficient daylight is going to be enjoyed, because it is a calculation on the face of the window, however if all the information can be obtained to calculate ADF's, this is a more realistic analysis.

**SUNLIGHT**

This is measured in a similar method to calculating VSC and relates to windows within 90° of due south.

The BRE handbook has calculated that the total annual probable sunlight hours amount to 1486.

Again the handbook sets out criteria for both new developments and existing buildings.

**(i) New Developments**

In general, a dwelling or non-domestic building which has a particular requirement for sunlight will appear reasonably sunlit provided that:-

(a) at least one main window wall faces within 90° of due south

or

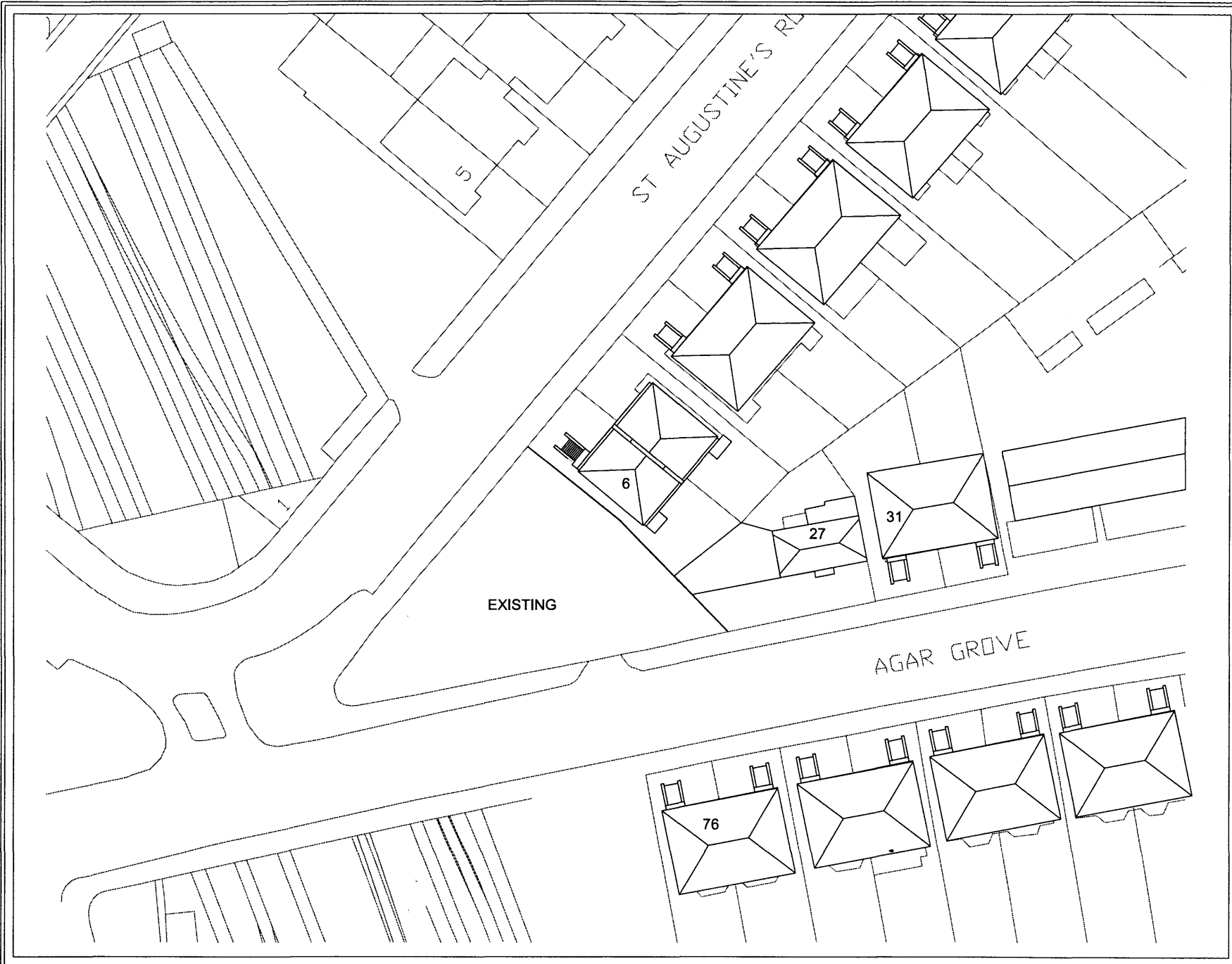
(b) on this window wall, all points on a line 2m above ground level are within 4m (measured sideways) of a point which receives at least a quarter of annual probable sunlight hours, including at least 5% of annual probable sunlight hours during the winter months, between 21 September and 21 March.

**(ii) Existing Buildings**

If a living room of an existing dwelling has a main window facing within 90° of due south, and any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the window in a vertical section perpendicular

to the window, then the sunlight of the existing dwelling may be affected. This will be the case if a point at the centre of the window, in the plane of the inner window wall, receives in the year less than one quarter of annual probable sunlight hours including at least 5% of annual probable sunlight hours in the Winter months between 21 September and 21 March or less than 0.8 times its former sunlight hours during either period.

## APPENDIX B



DVM ARCHITECTS  
 Proposed Drawing set (190308)  
 CHP  
 Site Photography  
 OBSTACLE SURVEY EXTRACT

**CHP**  
 CHARTERED SURVEYORS  
PROFESSIONAL REGISTERED SURVEYORS  
 1973-1980  
 1981-1999  
 2000-2003  
 2004-2010

PROJECT TITLE  
 ST AUGUSTINE'S ROAD

DRAWING TITLE  
 PLAN VIEW  
 EXISTING  
 SCALE  
 1:400@A3

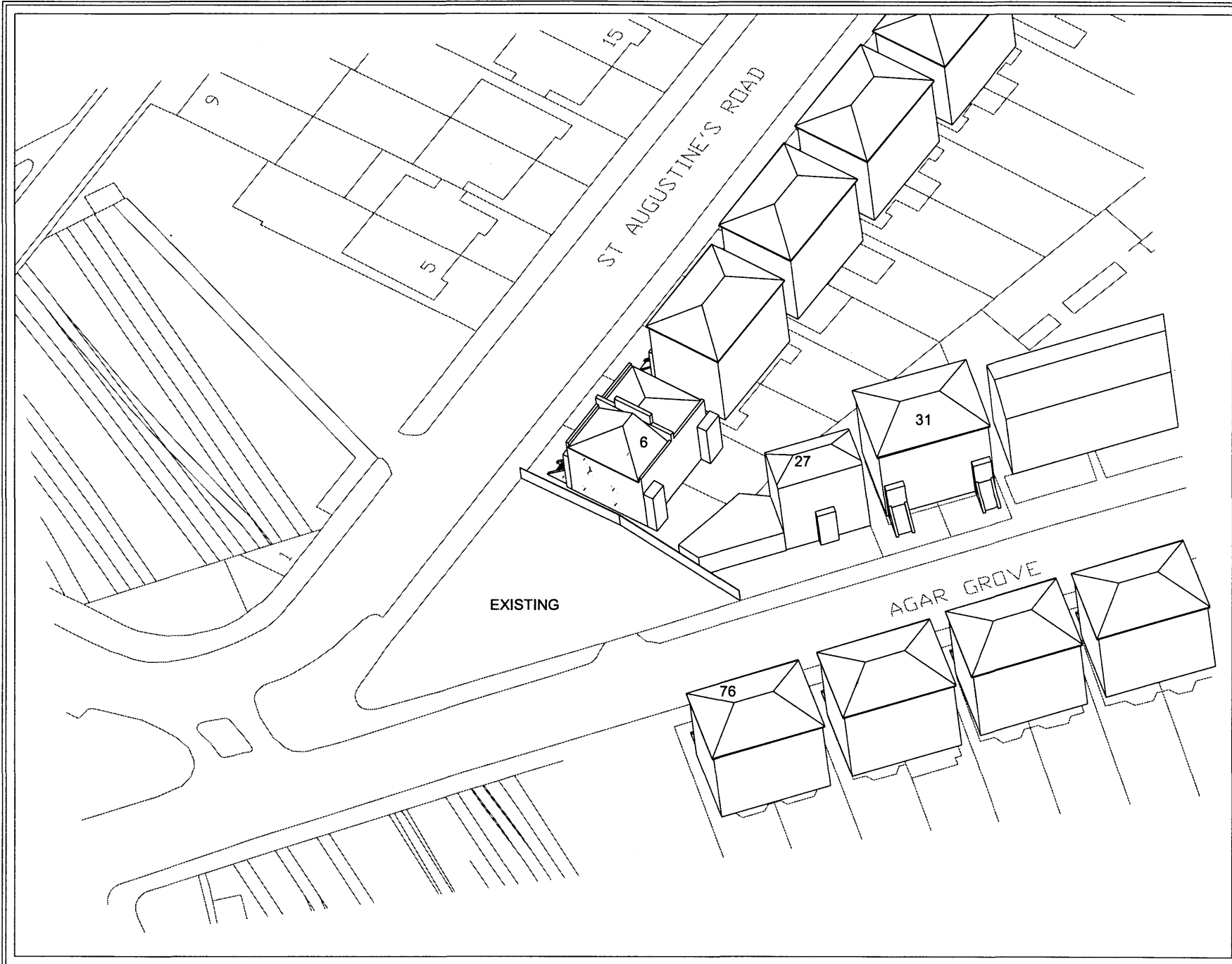
REV	DATE	DESCRIPTION

KEY

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Drawing Number  
**1282\_01**

Revision



SOURCES  
 DVM ARCHITECTS  
 Proposal Drawing no (19008)  
 CLIP  
 Site Photography  
 OBSTACLE SURVEY EXTRACT

**CHP**  
 CHARTERED SURVEYORS  
 PROJECT HOUSE - 10 MARSDEN STREET - SUVA  
 0075 4000  
 0075 4000

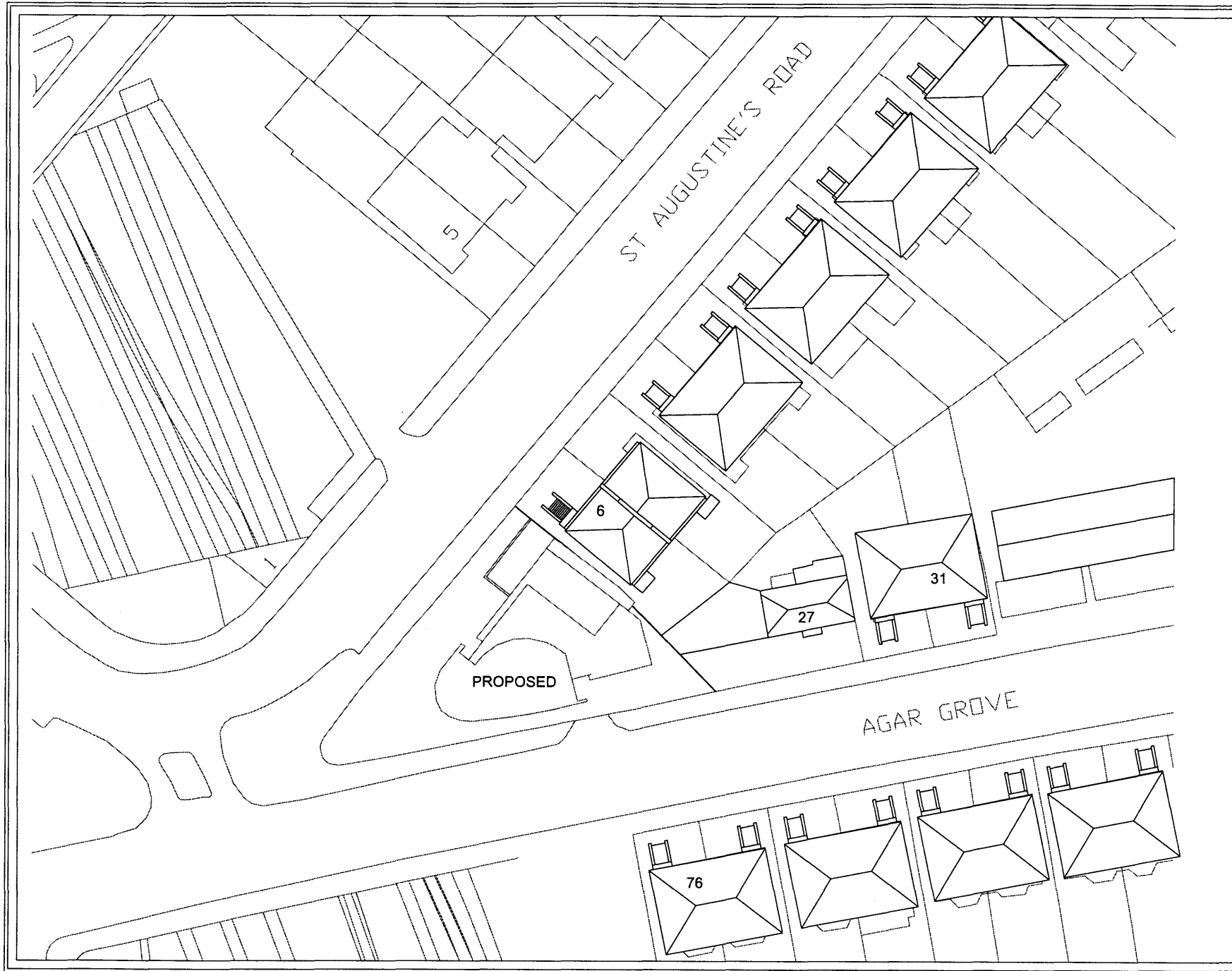
PROJECT TITLE  
 ST AUGUSTINE'S ROAD

DRAWING TITLE  
 PERSPECTIVE VIEW  
 EXISTING  
 SCALE  
 1:400@A3

KEY DATE DESCRIPTION

KEY

Drawing Number  
**1282\_03**  
 Revision



SOURCES  
 DVM ARCHITECTS  
 Proposed Drawing set 'Revisions for planning' Feb09.pdf  
 CHIP  
 Site Photography  
 ORDINANCE SURVEY EXTRACT

**CHIP**  
 CHARTERED SURVEYORS  
 10000 Highway 10 • St. Charles, Missouri 63043  
 PHONE: 636.261.1100  
 FAX: 636.261.1101

PROJECT TITLE  
 ST AUGUSTINES ROAD

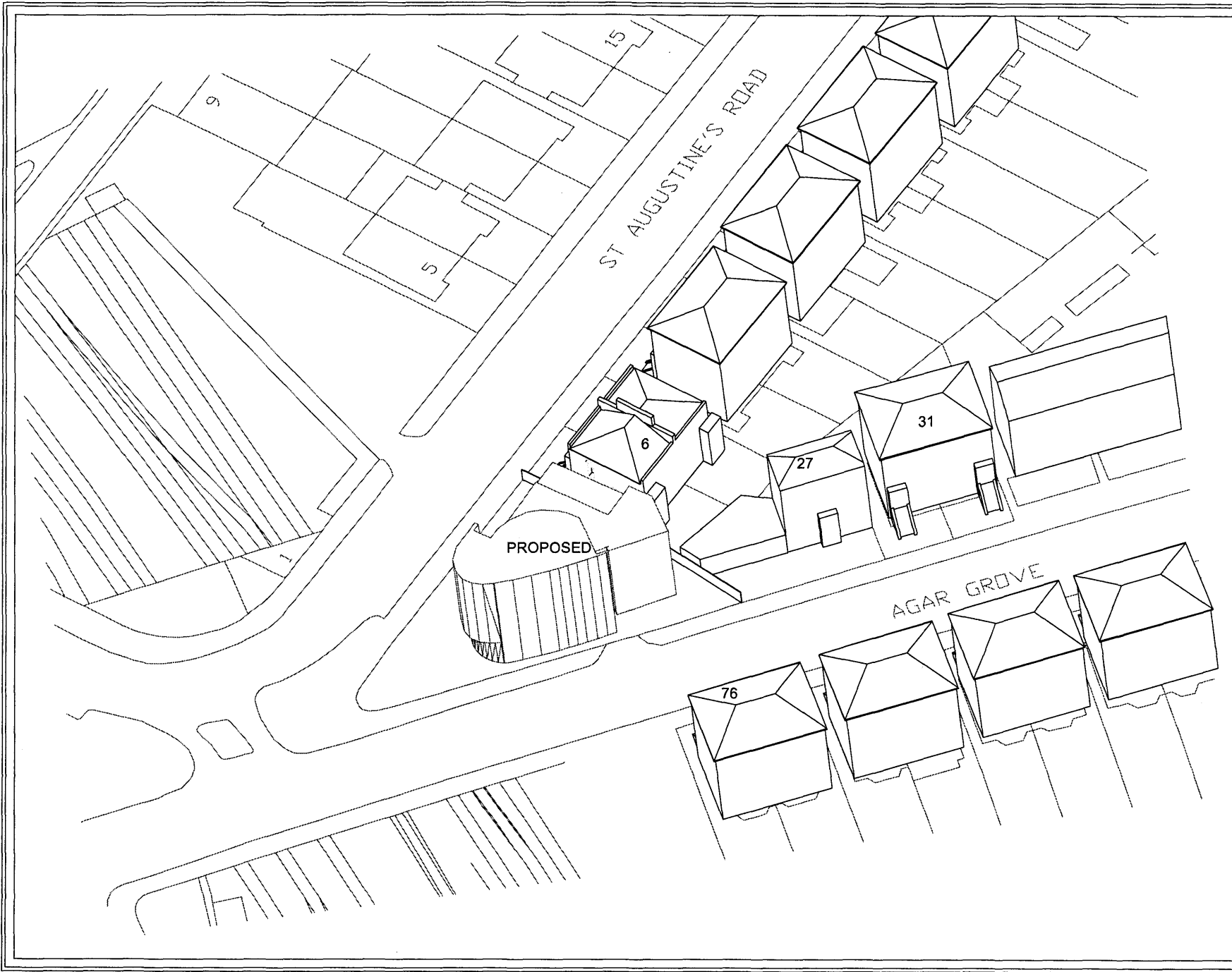
DRAWING TITLE  
 PLAN VIEW  
 PROPOSED

SCALE  
 1:400@A3

REV	DATE	DESCRIPTION

KEY

Drawing Number	Revision
1282_09	



SOURCES  
 DVM ARCHITECTS  
 Proposed Drawing set 'Revisions for planning' Feb09.pdf  
 CHP  
 Site Photography  
 ORDINANCE SURVEY EXTRACT

**CHP**  
 CHARTERED SURVEYORS  
INCORPORATED IN THE UNITED KINGDOM  
 REGISTERED OFFICE  
 THE OLD BRICK WORKS

PROJECT TITLE  
 ST AUGUSTINE'S ROAD

DRAWING TITLE  
 PERSPECTIVE VIEW  
 PROPOSED  
 SCALE  
 1:400@A3

REV	DATE	DESCRIPTION

KEY

--	--

Drawing Number  
**1282\_10**  
 Revision



<b>6 ST AUGUSTINES</b>												
LEV0	R1	4.56	4.16	2.72	91.13%	59.58%	0.00	0.00	0.70	0.74	34.62	0.54
	R2	4.33	3.97	0.63	91.78%	14.48%	0.46	1.08	1.08	0.73	84.22	2.49
	R3	30.87	19.71	12.88	63.85%	41.73%	0.00	2.55	4.28	0.00	34.64	4.69
LEV1	R1	9.00	7.37	0.32	81.86%	3.59%	1.93	2.25	2.25	0.62	95.61	6.42
LEV1.5	R1	2.40	2.19	2.19	91.07%	91.07%	0.00	0.00	0.00	0.00	0.00	0.00
LEV2	R1	7.80	7.77	7.74	99.64%	99.20%	0.00	0.00	0.00	0.03	0.44	0.01
											<b>TOTAL</b>	<b>14.15</b>

<b><u>76 AGAR GROVE</u></b>						
LEV0	W1		30.2	25.0	5.2	17.3
LEV1	W1		34.5	29.9	4.5	13.2
LEV2	W1		37.3	34.4	2.8	7.6
	W2		37.5	34.3	3.2	8.6
LEV3	W1		37.4	36.2	1.2	3.2
	W2		37.5	36.1	1.4	3.7
<b><u>78 AGAR GROVE</u></b>						
LEV0	W1		31.1	26.8	4.3	13.9
LEV1	W1		33.8	30.2	3.6	10.7
LEV2	W1		36.5	34.6	1.9	5.2
	W2		36.8	34.5	2.3	6.1
LEV3	W1		37.2	36.5	0.8	2.0
	W2		37.3	36.4	0.9	2.5
<b><u>6 ST AUGUSTINES</u></b>						
LEV0	W1	DRESSING ROOM	38.8	23.4	15.4	39.6
	W2	BATHROOM	38.6	6.9	31.7	82.1
	W3	KITCHEN	38.2	4.1	34.1	89.3
LEV1	W1		38.6	7.4	31.2	80.8
LEV1.5	W1	HALF LANDING	39.0	15.1	23.9	61.2
LEV2	W1	BATHROOM	39.2	28.4	10.8	27.5