

Proposed Mixed-Use Development  
**175-177 Cleveland Street & 1-5 Woodburn Street,  
Redfern**

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**TRAFFIC AND PARKING ASSESSMENT REPORT**

27 November 2017

Ref 17695

**VARGA TRAFFIC PLANNING** Pty Ltd  
**Transport, Traffic and Parking Consultants** 

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## 1. INTRODUCTION

This report has been prepared to accompany a development application for a mixed-use hotel and residential development proposal to be located at 175-177 Cleveland Street & 1-5 Woodburn Street, Redfern (Figures 1 and 2).

The subject site is located within the City of Sydney Council area and is also a *State Significant Development Site* as listed within *Schedule 2* of the *State Environmental Planning Policy (State and Regional Development) 2011*. Furthermore, the subject site is located within the *Zone MD (Major Development)* as stipulated within the *State Environmental Planning Policy (Major Development) 2005*. In this regard, the *Sydney Local Environment Plan 2012* is not applicable to the site, and Development Control Plans (DCPs) are also not applicable to the site under *Clause 11* of *State Environmental Planning Policy (State and Regional Development) 2011*.

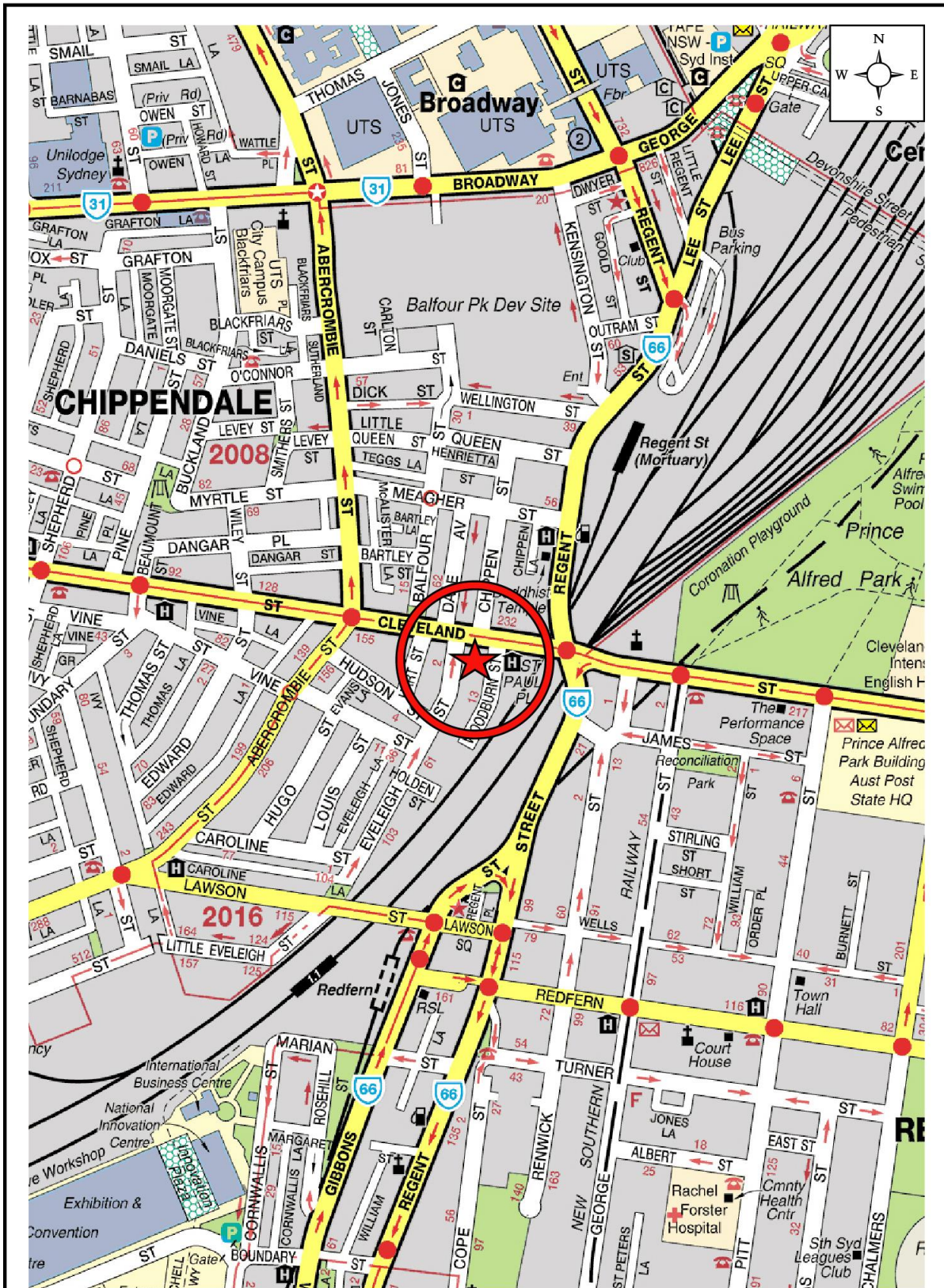
A mixed-use student accommodation and residential development was previously approved on the 175-177 Cleveland Street portion of the site under delegation from the Minister by the Secretary of the Department of Planning & Environment (SSD 6371). The approved development comprises the construction of a five-storey building including student accommodation for 40 students, a residential flat building containing 13 apartments and a single-storey basement car parking area.

The site has since been amalgamated with the adjoining land at 1-5 Woodburn Street and a new mixed-use hotel and residential development is now proposed on the site. The proposed development seeks to respond to the growing need for a variety of hotel accommodation in central Sydney areas, and now comprises the construction of a six-storey building including 45 hotel accommodation rooms, a residential flat building containing 20 apartments and a four-level basement car parking area.

The purpose of this report is to assess the traffic and parking implications of the development proposal and to that end this report:

- describes the site and provides details of the development proposal

- reviews the road network in the vicinity of the site
- estimates the traffic generation potential of the development proposal
- assesses the traffic implications of the development proposal in terms of road network capacity
- reviews the geometric design features of the proposed car parking and loading facilities for compliance with the relevant codes and standards
- assesses the adequacy and suitability of the quantum of off-street car parking and loading provided on the site.



VARGA TRAFFIC PLANNING Pty Ltd  
Traffic and Parking Consultants

LOCATION  
FIGURE 1



## 2. PROPOSED DEVELOPMENT

### Site

The subject site is located on the southern side of Cleveland Street, between Eveleigh Street and Woodburn Street. The site has street frontages approximately 36m in length to Cleveland Street, 25m in length to Eveleigh Street and 33m in length to Woodburn Street. The site occupies an area of approximately 1,060m<sup>2</sup>.

The subject site is located within the City of Sydney Council area and is also a *State Significant Development Site* as listed within *Schedule 2* of the *State Environmental Planning Policy (State and Regional Development) 2011*. Furthermore, the subject site is located within the *Zone MD (Major Development)* as stipulated within the *State Environmental Planning Policy (Major Development) 2005*. In this regard, the *Sydney Local Environment Plan 2012* is not applicable to the site, and Development Control Plans (DCPs) are also not applicable to the site under *Clause 11* of *State Environmental Planning Policy (State and Regional Development) 2011*.

The subject site is located on the south-western edge of the Sydney CBD and is within short walking distance of Redfern and Central Railway Stations. The site is also located within close proximity to several tertiary educational establishments including University of Sydney, University of Technology and Notre Dame University.

The subject site is currently occupied by two separate commercial buildings. The floor area of the Cleveland Street building has been estimated at approximately 560m<sup>2</sup> whilst the floor area of the Woodburn Street building has been estimated at approximately 770m<sup>2</sup>.

Vehicular access to the site is provided via two crossovers located in Woodburn Street and one crossover located in Eveleigh Street.

A recent aerial image of the site and its surrounding is reproduced below.



(Source: Nearmap 19/10/2017)

### **Previously Approved Development**

A mixed-use student accommodation and residential development was previously approved on the 175-177 Cleveland Street portion of the site under delegation from the Minister by the Secretary of the Department of Planning & Environment (SSD 6371).

The previously approved student accommodation component consisted of 36 single rooms and 4 double rooms located on the northern portion of the site.

The previously approved residential apartment component comprised 13 one-bedroom apartments located on the south-western portion of the site.

Off-street parking was previously approved for a total of 7 car spaces, 10 motorcycle spaces and 61 bicycle spaces in a new single-level basement car parking area. Vehicular access to the off-street parking facilities was approved via a new single lane driveway/ramp located at the southern end of the Eveleigh Street site frontage.



## Proposed Development

The site has been amalgamated with the adjoining land at 1-5 Woodburn Street and now proposes the demolition of the existing buildings on the site to facilitate the construction of a six-storey mixed-use hotel and residential development as follows:

- 45 × hotel suites
- 20 × residential apartments comprising:
  - 2 × studio apartments
  - 17 × one-bedroom apartments
  - 1 × 2-bedroom apartments
- a retail component on ground floor level and level 1, comprising a cumulative floor area of 200m<sup>2</sup>
- a wine bar with a floor area of 105m<sup>2</sup>.

Off-street car parking is to be provided for a total of 59 cars in a new four-level basement car parking area.

In addition, 60 bicycle parking spaces are proposed, plus a further 15 motorbike parking spaces.

Vehicular access to the car parking facilities is to be provided via a new two-way entry/exit driveway located at the southern end of the Eveleigh Street site frontage.

The small scale of the retail use proposed on the site will allow servicing to be undertaken by smaller, light commercial vehicles as is commonplace in the City of Sydney, particularly for commercial uses located on busy thoroughfares. The servicing needs of the hotel use and wine bar will also be undertaken using smaller light commercial vehicles. These light commercial vehicles will be accommodated in the upper levels of the parking spaces proposed in the basement car parking area.

Loading/servicing for the proposed development is expected to be undertaken by a variety of light commercial vehicles up to the size of a B99 vehicle (e.g. Toyota HiAce, Hyundai iLoad, Ford Transit Custom etc.), which are capable of fitting into a conventional parking space.

A number of parking spaces proposed in the basement parking area will therefore be allocated to the retail use, hotel and wine bar to accommodate their servicing needs, thereby reducing any potential on-street impacts caused by the development and service vehicles associated with it.

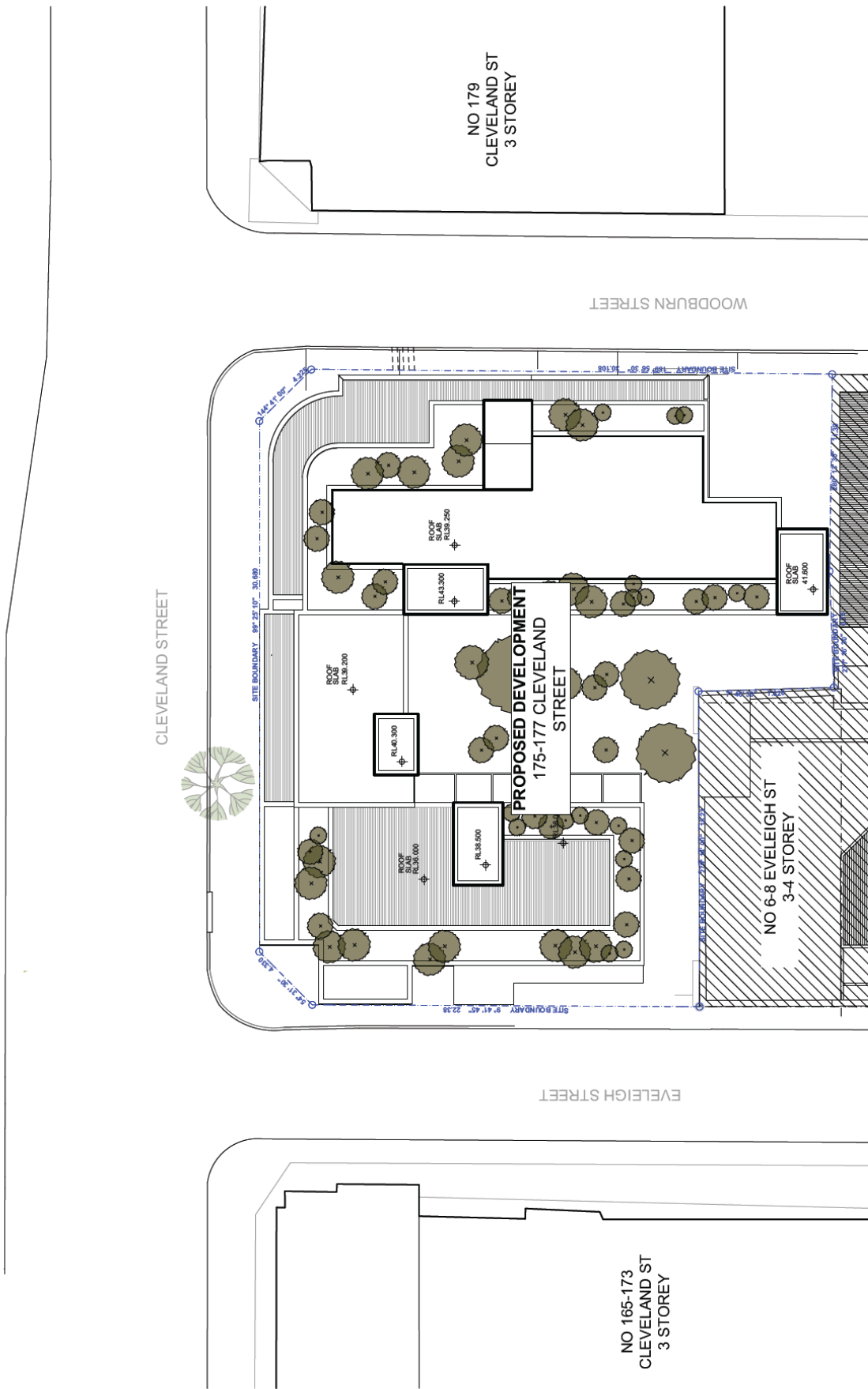
It is noted in this regard that the availability of on-street parking in the surrounding area is severely constrained, as follows:

- kerbside parking is prohibited on a 24 hour basis in Cleveland Street and Regent Street by Clearway and No Stopping/No Parking restrictions
- the majority of both sides of Eveleigh Street are subject to No Parking restrictions in the vicinity of the site
- kerbside parking is also constrained in Woodburn Street due to its narrow width and No Stopping restrictions which extend along one side of the street for its entire length.

The proposed development therefore endeavours to accommodate its parking needs within the site, thus reducing any potential external impacts on the limited availability of on-street car parking.

A garbage room is proposed for the residential component which is located approximately 10 metres from the property boundary at Eveleigh Street. Given that Council's garbage trucks already traverse Eveleigh Street, the collection of bins from Eveleigh Street by private contractors will not result in any significant change to the collection process which presently occurs in the street.

Plans of the proposed development have been prepared by *JPR Cottee Parker Architects* and are reproduced in the following pages.



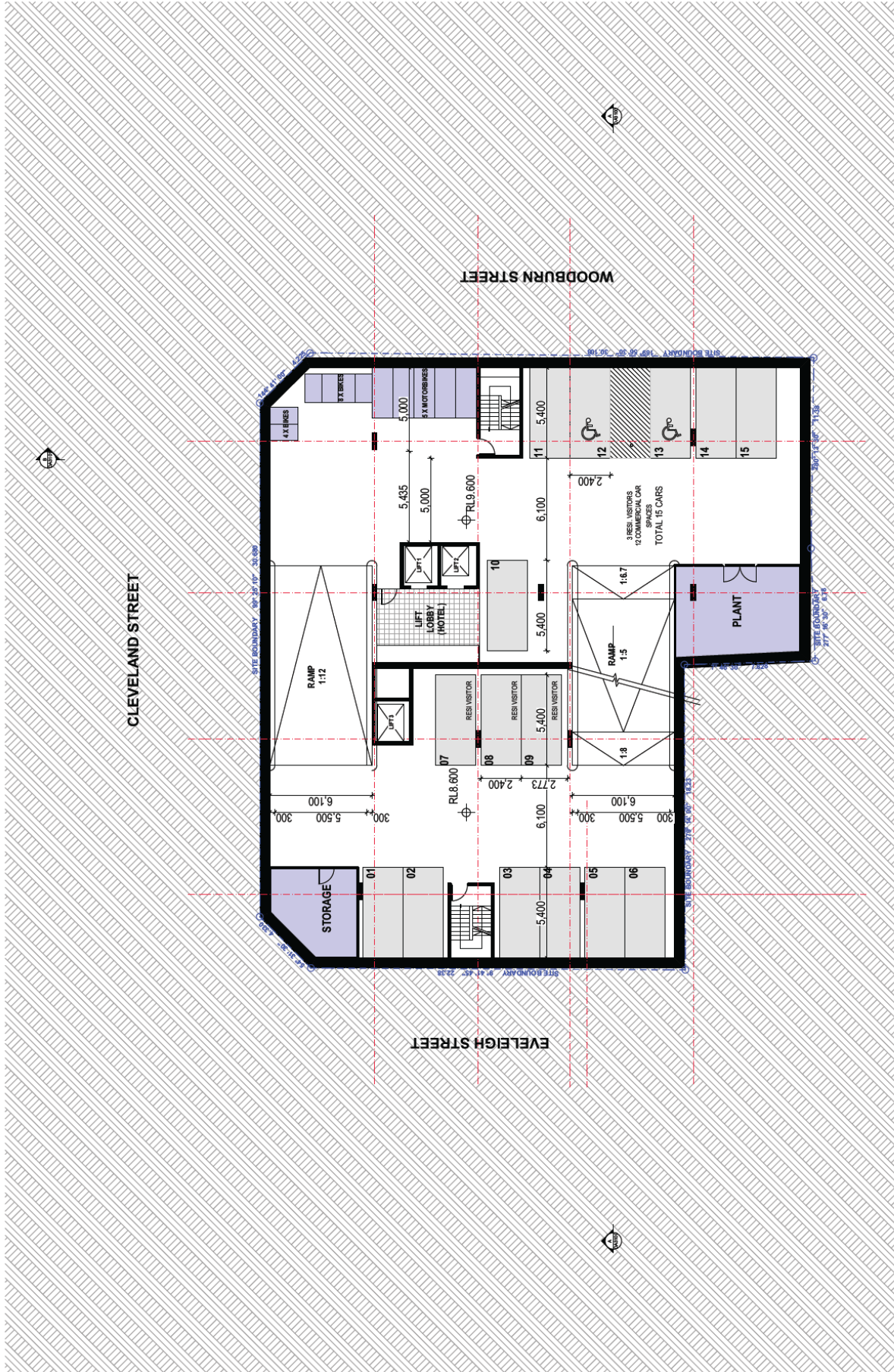
PROJECT: MIXED USE MULTI UNIT  
RESIDENTIAL DEVELOPMENT  
175-177 CLEVELAND ST & S  
WOODBURN ST PREPARE  
SITE PLAN  
DA1000 A

COTTEPARKER  
JPR  
175-177 CLEVELAND ST & S  
WOODBURN ST PREPARE  
SITE PLAN  
DA1000 A



A. SUBMISSION FOR SECTION 34  
CONFERENCE  
FILE: 1657 Cleveland Street DA Master





PROJECT: NO. 20100001  
 RESIDENTIAL DEVELOPMENT  
 SCALE: 1:200 @ A2  
 DRAWING NO.: REV.  
 PROJECT NO.:  
 PROJECT NAME:  
 PROJECT ADDRESS:  
 PROJECT CONTACT:  
 PROJECT PHONE:  
 PROJECT EMAIL:

PROJECT: RESIDENTIAL DEVELOPMENT  
 PROJECT NO.: 20100001  
 PROJECT NAME: WOODBURN ST RESIDENTIAL DEVELOPMENT  
 PROJECT ADDRESS: WOODBURN ST RESIDENTIAL DEVELOPMENT  
 PROJECT CONTACT: JPR  
 PROJECT PHONE: 08 9438 1234  
 PROJECT EMAIL: JPR@COTTEEPARKER.COM.AU



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A SUBMISSION FOR SECTION 34  
 CONFERENCE  
 FILE: 10077 Cleveland Street DA Master

DA2001 A

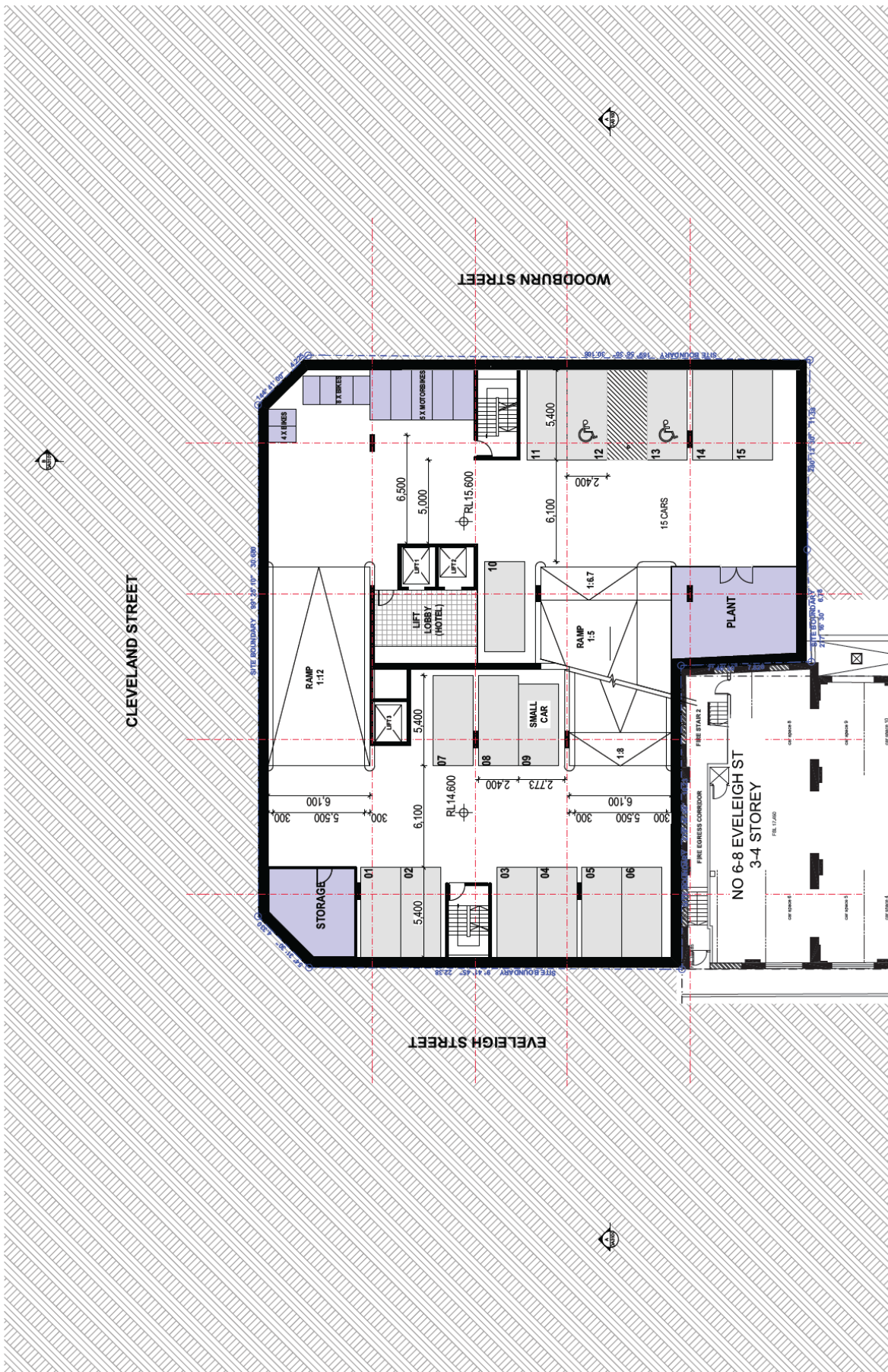


PROJECT: JPR  
 PROJECT: JAMES RUSSELL UNIT  
 RESIDENTIAL DEVELOPMENT  
 125/127 CLEVELAND ST & 1/5  
 WOODBURN ST PRECINCT  
 DOWNSIDE  
 B2  
 GROUND FLOOR  
 PLAN  
 PROJECT NO: 21/11/2017  
 DRAWING NO: 21/11/2017  
 SCALE: 1:200 @ A3  
 REV: 01  
 DA2002 A

COTTEPARKER  
 JPR  
 ARCHITECTS  
 1/5 CLEVELAND ST  
 WOODBURN ST PRECINCT  
 DOWNSIDE  
 SYDNEY NSW 1585  
 PH: 02 9539 1111  
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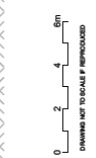


A. SUBMISSION FOR SECTION 34 - 21/11/2017  
 CONFERENCE  
 FILE: 4387/Cleveland Street DA Master

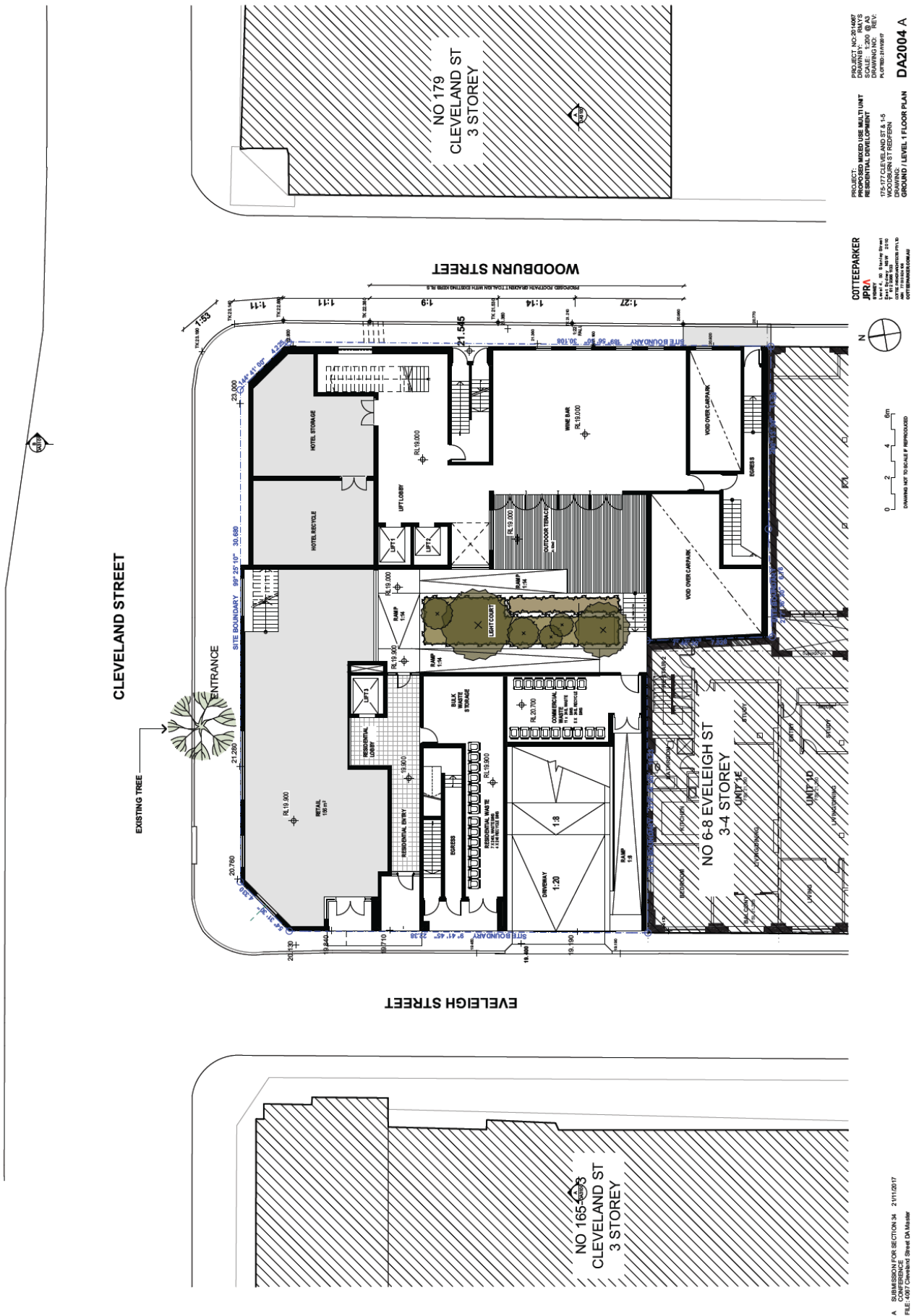


PROJECT: COTTREEPARKER  
 PROPOSED USE: MULTI UNIT RESIDENTIAL DEVELOPMENT  
 SITE: 177/179/181/183/185 WOODBURN ST TREDDENNA  
 DRAWING NO: DA2003 A  
 PLAN: BASEMENT 01 FLOOR

COTTREEPARKER  
 JPR  
 177/179/181/183/185 WOODBURN ST TREDDENNA  
 3141 TARDILLO RD  
 WOODBURN VIC 3189  
 WWW.COTTREEPARKER.COM.AU  
 COTTREEPARKER.COM.AU



A: SUBMISSION FOR SECTION 4A - 21/11/2017  
 FILE: /837/Cowburne Street DA/M389



PROJECT: PROPOSED MIXED USE MULTI UNIT RESIDENTIAL DEVELOPMENT  
 DRAWING: 175-177 CLEVELAND ST & 1-5 WOODBURN ST RESIDUAL DEVELOPMENT  
 DRAWING NO: DA2004 A  
 DATE: 21/11/2017  
 ISSUE: FIRST ISSUE  
 PROJECT: 175-177 CLEVELAND ST & 1-5 WOODBURN ST RESIDUAL DEVELOPMENT  
 DRAWING: GROUND / LEVEL 1 FLOOR PLAN  
 DATE: 21/11/2017  
 ISSUE: FIRST ISSUE

COTTEPARKER  
 ARCHITECTS  
 175-177 CLEVELAND ST  
 SYDNEY NSW 2010  
 TEL: (02) 9550 1111  
 WWW.COTTEPARKER.COM.AU

NO 179 CLEVELAND ST 3 STOREY  
 NO 165-167 CLEVELAND ST 3 STOREY  
 NO 6-8 EVELEIGH ST 3-4 STOREY





PROJECT: NO 165 CLEVELAND ST  
 PROPOSED MIXED USE MULTI UNIT  
 RESIDENTIAL DEVELOPMENT  
 175-177 CLEVELAND ST & 1-5  
 WOODBURN ST TREFERN  
 LEVEL 2 FLOOR PLAN  
 DA2005 A

COTTEEPARKER  
 ARCHITECTS  
 Level 4, 88 Stirling Street  
 Sydney NSW 2000  
 www.cotteeparker.com.au

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A SUBMISSION FOR SECTION M, 20/11/2017  
 FILE: 007 Cleveland Street DA Master



PROJECT: PROPOSED MIXED USE MULTI UNIT RESIDENTIAL DEVELOPMENT  
 175-177 CLEVELAND ST & 1-5 CLEVELAND ST, HOUSTON  
 DRAWING: SECTION A

PROJECT NO: 2014067  
 DRAWN BY: RALYS  
 CHECKED BY: RALYS  
 DATE: 20/11/2017

PROJECT: PROPOSED MIXED USE MULTI UNIT RESIDENTIAL DEVELOPMENT  
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PROJECT NO: 2014067  
 DRAWN BY: RALYS  
 CHECKED BY: RALYS  
 DATE: 20/11/2017

PROJECT: PROPOSED MIXED USE MULTI UNIT RESIDENTIAL DEVELOPMENT  
 175-177 CLEVELAND ST & 1-5 CLEVELAND ST, HOUSTON  
 DRAWING: SECTION A

PROJECT NO: 2014067  
 DRAWN BY: RALYS  
 CHECKED BY: RALYS  
 DATE: 20/11/2017



PROJECT:  
PROPOSED MIXED USE MULTI UNIT  
RESIDENTIAL DEVELOPMENT  
175-177 CLEVELAND ST & 1-5  
WOODBURN ST TREFERN  
SECTION B

COTTEPARKER  
JPR  
Level 4 - 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

PROJECT:  
PROPOSED MIXED USE MULTI UNIT  
RESIDENTIAL DEVELOPMENT  
175-177 CLEVELAND ST & 1-5  
WOODBURN ST TREFERN  
SECTION B

0 2 4 8m  
DRAWING NOT TO SCALE IF REPRODUCED

A. SUBMISSION FOR SECTION 34 20/11/2017  
FILE: 1007 Cleveland Street DA Master

PROJECT NO: 1007  
DRAWN BY: BAVS  
SCALE: 1:500  
DATE: 10/11/2017  
PLOT NO: 1007

DA3101 A

### **3. TRAFFIC ASSESSMENT**

#### **Road Hierarchy**

The road hierarchy allocated to the road network in the vicinity of the site by the Roads and Maritime Services is illustrated on Figure 3.

Regent Street is classified by the RMS as a *State Road* and provides the key north-south road link in the area, linking Broadway to Botany Road. It typically carries two to three traffic lanes in each direction in the vicinity of the site, and is subject to Clearway restrictions during commuter peak periods.

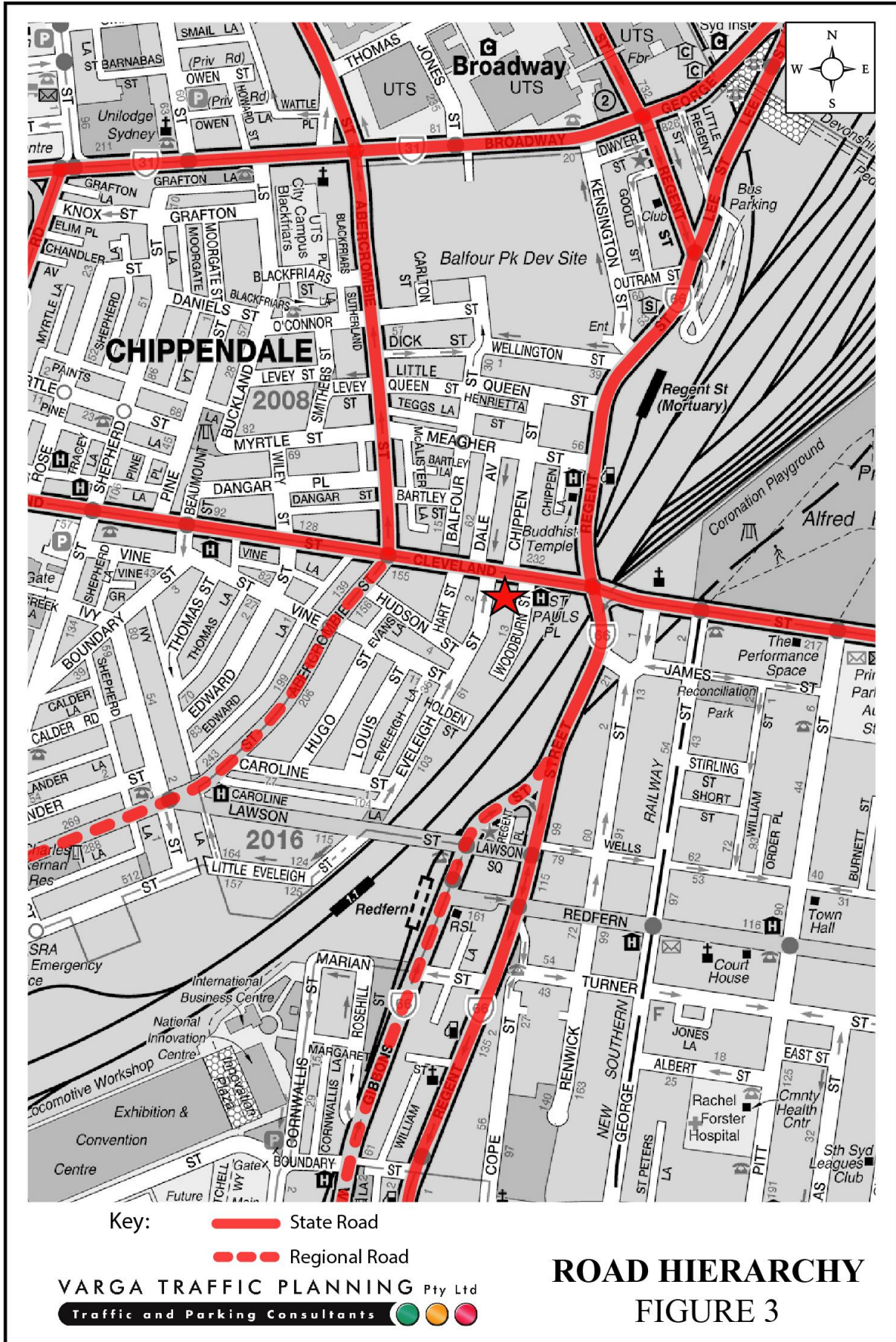
Cleveland Street is also classified by the RMS as a *State Road* and provides the key east-west road link in the area, linking City Road to Anzac Parade. It typically carries two traffic lanes in each direction in the vicinity of the site with turning bays provided at key locations.

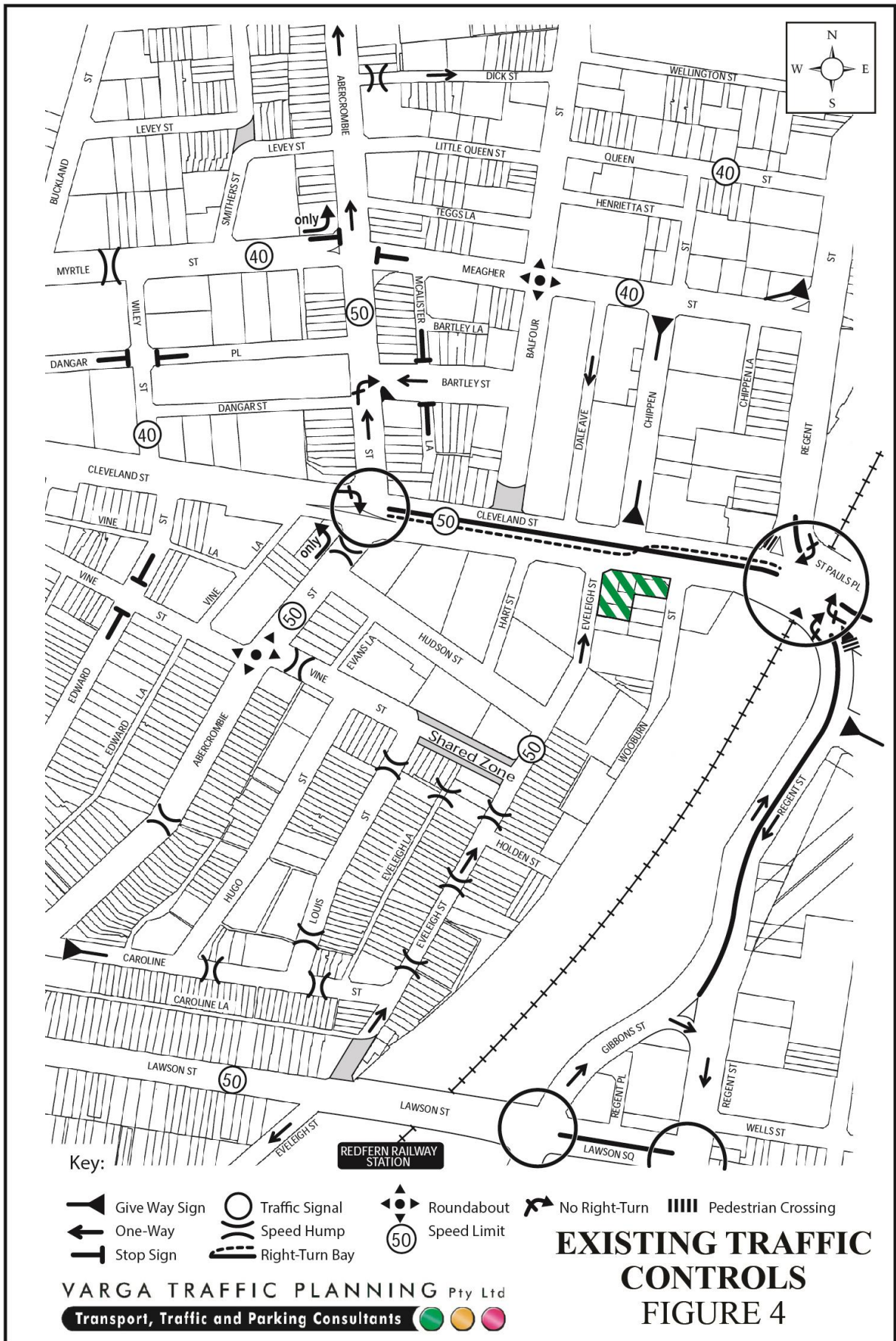
Eveleigh Street and Woodburn Street are local, unclassified roads which are primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is generally permitted on both sides of the road.

#### **Existing Traffic Controls**

The existing traffic controls which apply to the road network in the vicinity of the site are illustrated on Figure 4. Key features of those traffic controls are:

- a 50 km/h SPEED LIMIT which applies to Cleveland Street, Eveleigh Street, Woodburn Street and the majority of other local roads in the area
- TRAFFIC SIGNALS in Cleveland Street where it intersects with Abercrombe Street and also Regent Street
- a ONE WAY northbound restriction in Eveleigh Street





## Existing Public Transport Services

The existing public transport services available in the vicinity of the site are illustrated on Figure 5. The subject site is located within easy walking distance of an extensive range of public transport services as follows:

- Route 352 bus service between Marrickville Metro and Bondi Junction Bus/Rail Interchange traverses Cleveland Street past the site frontage 7 days per week, with 79 services per day on weekdays, 72 services per day on Saturdays and 52 services per day on Sundays
- Route 308, 309 and 310 bus services provide regular services between the City and Marrickville Metro, Matraville and Pagewood respectively via Redfern Railway Station with the nearest bus stop located within approximately 600m walking distance to/from the site
- there are approximately 20 separate bus services travelling along Broadway which is located within approximately 600m walking distance to/from the site, and
- there are approximately 10 bus services travelling northbound or southbound along Chalmer Street and Elizabeth Street respectively which is located approximately 600m walking distance to the east of the site. All these services interchange with suburban railway services and the light rail service at Central Railway Station.

The site is also located approximately 400m walking distance from Redfern Railway Station and approximately 800m walking distance from Central Railway Station which provide access to all suburban rail services. In addition, the site is located approximately 1,100m walking distance from Haymarket Light Rail Station.

On the above basis, it is reasonable to conclude that the subject site has excellent connectivity to existing public transport services.





## **Cycling in City of Sydney**

Riding a bike is a fun, healthy and sustainable way of getting around the city. Using two wheels can also potentially save time and money.

More and more Sydneysiders are riding bikes for transport, with a 100% increase over the past 3 years. Twice as many are riding bikes for transport than the national average, and some 31,600 City of Sydney residents get on a bike in a typical week (2013 Australian Bicycle Council survey).

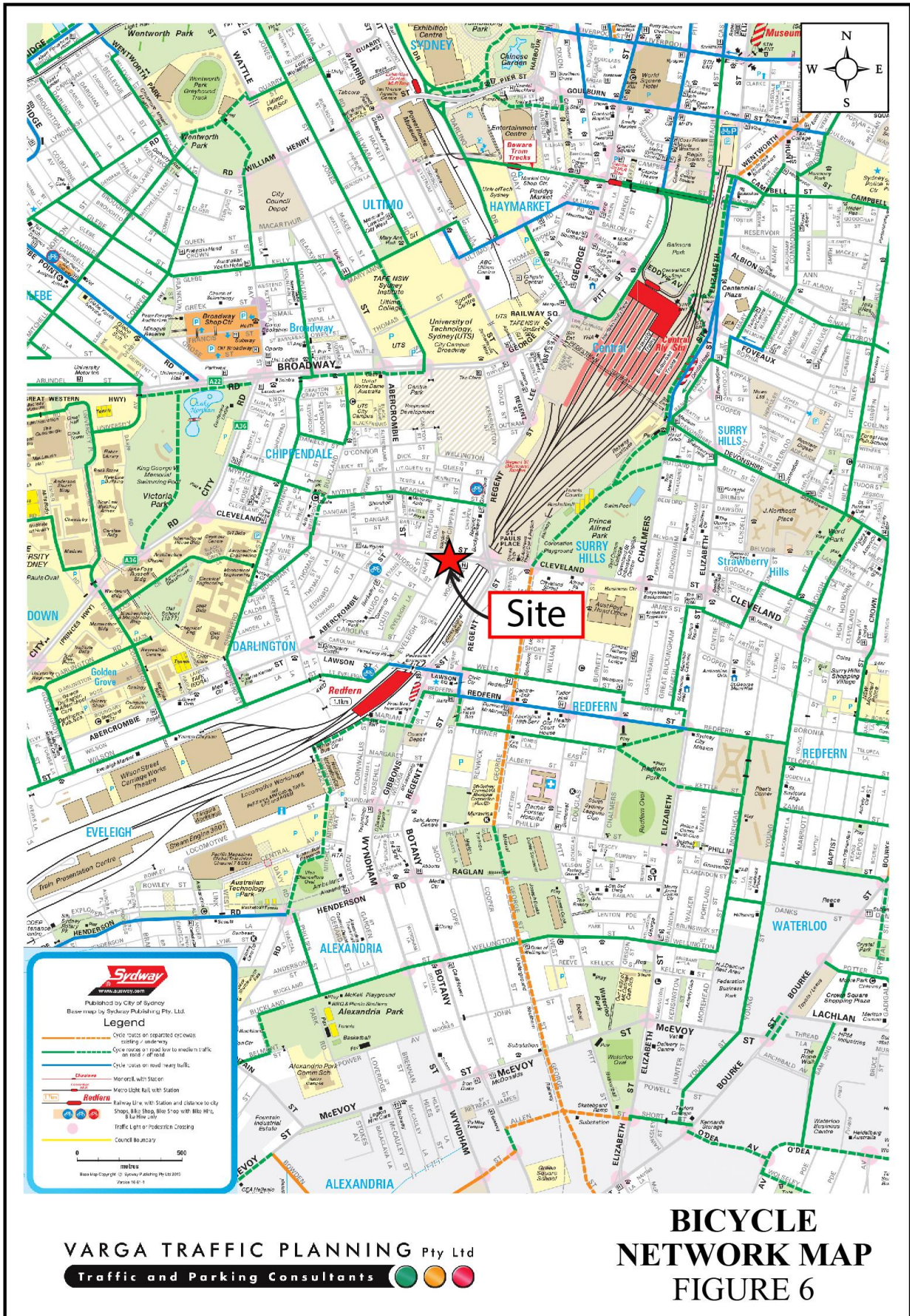
The City is supporting this growth in cycling by building a 200km bike network which includes dedicated bike paths separating riders from traffic and pedestrians, as illustrated in the City of Sydney bicycle network map shown in Figure 6.

The City of Sydney bicycle network map shows that the site has excellent connectivity to the wider cycle network via separated off-road cycleways and low-traffic routes.

## **Planning Guidelines for Walking and Cycling**

The *Planning Guidelines for Walking and Cycling* identify a number of city-scale design principles that can assist the creation of walkable and cyclable cities and neighbourhoods. These principles emphasise urban renewal and the creation of compact, mixed use, accessible centres around public transport stops. At the neighbourhood scale, design principles can be reinforced through the creation of local and accessible centres and neighbourhoods with connected street patterns and road design which aim to reinforce local walking and cycling networks.

In particular, the *Guidelines* note that increased population density is an important element in creating a walkable and cyclable city. A compact development brings activities close together, making them more accessible by foot or by bicycle, without the need to use a car. Increased population density also enhances the viability of public transport services.



### **Work Place Travel Plan**

A Work Place Travel Plan aims to manage transport through a series of measures that promote and facilitate more sustainable modes of travel with a view to reducing motor vehicle use. A Work Place Travel Plan establishes travel mode targets in consultation with residents and employees which are to be reviewed on a regular basis. The key tasks of the Work Place Travel Plan Coordinator will include:

- undertake regular surveys to identify the travel modes of building occupants
- maintain and update the information provided in the Transport Access Guide, and
- set new travel mode targets on an ongoing pace in consultation with residents and employees.

### **Transport Access Guide**

The aim of a Transport Access Guide is to ensure that residents and employees are aware of the options available for travel to the subject development by walking, cycling or public transport.

A Transport Access Guide will typically include a map illustrating public transport routes, cycle ways and walking paths, as well as key destinations in the vicinity of the site such as tertiary education facilities.

The Transport Access Guide will be developed in accordance with the principles identified by Transport for NSW and Sydney City Council prior to issue of the Occupation Certificate.

### **Projected Traffic Generation**

The traffic implications of development proposals primarily concern the effects of the *additional* traffic flows generated as a result of a development and its impact on the operational performance of the adjacent road network.

An indication of the traffic generation potential of the development proposal is provided by reference to the Roads and Maritime Services publication *Guide to Traffic Generating Developments, Section 3 - Landuse Traffic Generation (October 2002)* and the updated traffic generation rates in the recently published RMS *Technical Direction (TDT 2013/04a)* document.

The TDT 2013/04a document specifies that it replaces those sections of the RMS *Guidelines* indicated, and must be followed when RMS is undertaken trip generation and/or parking demand assessments.

The RMS *Guidelines* and the updated TDT 2013/04a are based on extensive surveys of a wide range of land uses and nominate the following traffic generation rates which are applicable to the residential component of the development proposal:

**High Density Residential Flat Dwellings**

AM: 0.19 peak hour vehicle trips per unit

PM: 0.15 peak hour vehicle trips per unit

The RMS *Guidelines* also make the following observation in respect of high density residential flat buildings:

**Definition**

*A high density residential flat building* refers to a building containing 20 or more dwellings. This does not include aged or disabled persons housing. *High density residential flat buildings* are usually more than 5 levels, have basement level car parking and are located in close proximity to public transport services. The building may contain a component of commercial use.

**Factors**

The above rates include visitors, staff, service/delivery and on-street movements such as taxis and pick-up/set-down activities.

The RMS *Guidelines* do not nominate a traffic generation rate for small, local shops, referring only to major regional shopping centres incorporating supermarkets and department stores. For the purpose of this assessment therefore, the traffic generation rate of *2.0 peak hour vehicle trips per 100m<sup>2</sup>* nominated in the RMS *Guidelines* for *commercial premises* has

been adopted in respect of the wine bar and the commercial/retail components of the development proposal.

The RMS *Guidelines* also do not nominate a traffic generation rate for tourist hotels. Recent practice in the Central Sydney area has been to adopt a traffic generation rate of 1 peak hour trip per 10 hotel rooms, primarily comprising taxi movements. It is pertinent to note that this hotel trip rate has previously been approved by City of Sydney (e.g. the approved mixed-use residential and hotel development located at 115 Bathurst Street, on the corner with Pitt Street).

Application of the above rate to the proposed development yields a traffic generation potential of up to 14 vehicle trips per hour (vph) during the AM commuter peak period and 13 vph during the PM commuter peak period, as set out below:

<b>Projected Future Traffic Generation Potential</b>		
	<b>AM</b>	<b>PM</b>
Hotel (45 suites):	4.5 vph	4.5 vph
Residential (20 apartments):	3.8 vph	3.0 vph
Commercial/Retail (200m <sup>2</sup> ):	4.0 vph	4.0 vph
Wine Bar (105m <sup>2</sup> ):	2.1 vph	2.1 vph
<b>TOTAL TRAFFIC GENERATION POTENTIAL:</b>	<b>14.4 vph</b>	<b>13.6 vph</b>

That projected future level of traffic generation potential should however, be offset or *discounted* by the volume of traffic which could reasonably be expected to be generated by the previously approved uses of the site, in order to determine the *nett increase (or decrease)* in traffic generation potential of the site expected to occur as a consequence of the development proposal when compared with the previously approved development on the site.

The RMS *Guidelines* nominates the following traffic generation rates which are applicable to the residential component of the previously approved development:

**Medium Density Residential Flat Buildings**

0.4-0.5 peak hour vehicle trips per 1 & 2 bedroom dwelling

The RMS *Guidelines* does not nominate a traffic generation rate for student accommodation, however if it is assumed that 50% of 7 previously approved parking spaces are accessed during the morning and afternoon peak hour then the previously approved student accommodation had a traffic generation potential of 3.5 vehicle trips per hour.

As mentioned in the foregoing, the proposal now includes the 1-5 Woodburn Street site which has a building floor area of approximately 770m<sup>2</sup>. The RMS *Guidelines* nominates a traffic generation rate of 1.0 peak hour vehicle trips per 100m<sup>2</sup> for industrial buildings.

Therefore, application of the above traffic generation rates to the various components of the previously approved and existing developments yields a traffic generation potential of approximately 17 vehicle trips per hour during commuter peak periods as set out below:

**Previously Approved Traffic Generation Potential of the Site**

Residential Apartments (13 Apartments):	5.2 peak hour vehicle trips
Student Accommodation (40 rooms):	3.5 peak hour vehicle trips
Industrial Building (770m <sup>2</sup> ):	7.7 peak hour vehicle trips
<b>TOTAL TRAFFIC GENERATION POTENTIAL:</b>	<b>16.4 peak hour vehicle trips</b>

Accordingly, it is likely that the proposed development will *not* result in any nett increase in the traffic generation potential of the site, as set out below:

**Projected Nett Change in Peak Hour Traffic Generation Potential  
of the site as a consequence of the development proposal**

	<b>AM</b>	<b>PM</b>
Projected Future Traffic Generation Potential:	14.4 vph	13.6 vph
Less Previously Approved Traffic Generation Potential:	-16.4 vph	-16.4 vph
<b>NETT CHANGE IN TRAFFIC GENERATION POTENTIAL:</b>	<b>-2.0 vph</b>	<b>2.8 vph</b>

In any event, it is clear that the projected future traffic generation potential of 14 vph for the revised development proposal is minimal, and it is therefore reasonable to conclude that the proposed development will not have any unacceptable traffic implications in terms of road network capacity.

#### **4. CONSTRUCTION TRAFFIC MANAGEMENT PLAN**

It is anticipated that a Construction Traffic Management Plan (CTMP) incorporating a construction vehicle route map and a Traffic Control Plan as well as the consent authority's site specific requirements will need to be prepared in response to development consent conditions prior to the issue of the Construction Certificate.

##### **Construction Times and Operation**

The construction activities are expected to be undertaken over a duration of approximately 18 months, subject to confirmation upon appointment of a construction company to be contracted for the proposed works.

Working hours are to be in compliance with the DA consent requirements and/or NSW Environmental Protection Authority Noise Control Guidelines as follows:

- Monday to Friday, 7am to 6pm
- Saturdays, 7am to 1pm (if inaudible on neighbouring residential premises), otherwise 8 am to 1pm
- no work is permitted on Sundays or Public Holidays.

##### **Construction Truck Routes**

It is anticipated that all construction vehicle access to/from the site will be undertaken from either Woodburn Street or Eveleigh Street via *left-turn only* movements to/from Cleveland Street.

A construction vehicle route map is to be developed as part of the Construction Traffic Management Plan (CTMP) required to obtain construction certification post approval of the development application. The timing of construction and how trucks enter/exit the Sydney CBD must be discussed in close consultation with the CBD Coordination Office (operated by

Transport for NSW) and City of Sydney in order to develop an appropriate construction access strategy.

All construction vehicle movements must be carried out taking into consideration of the surrounding land uses and function of the roads. Mitigation measures will be put in place and traffic control plans are to be developed to ameliorate construction traffic impacts.

All construction vehicles are to be loaded to their prescribed weight limits. All construction vehicles will be covered by tarpaulin or the like prior to exiting any work site as required. All construction vehicles leaving the work site must be free of mud or any other debris. The site manager is responsible for all construction vehicles accessing/egressing the work site and ensure that construction vehicles give way to all pedestrians and cyclists before entering/exiting.

During times of construction vehicle access/egress, certified Roads and Maritime accredited Traffic Controllers are to be on site at all times.

All contractors and employees are to be given a copy of the approved CTMP to understand their obligations as part of their site induction procedure.

### **Construction Truck Type and Operation**

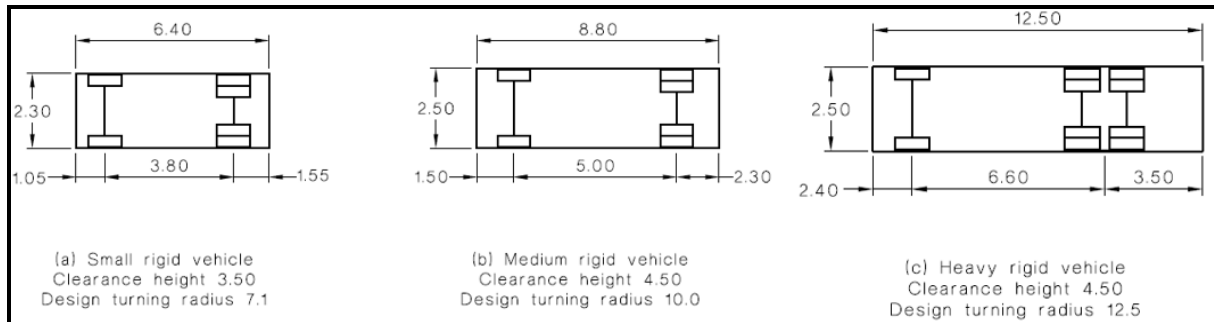
The appointed construction company will have an active and ongoing involvement in the management and monitoring of works during construction. They will ensure that no construction vehicles will be in operation outside of the approved construction working hours. All construction vehicles will arrive at pre-arranged times to the work site and be in radio contact at all times.

All construction vehicles approaching/departing the work site will adhere to road rules and observe any signage in place. Pedestrian and bicycle access is to be unobstructed at all times and consultation with local residents and businesses will be ongoing.

All loading and unloading associated with the construction are to be undertaken entirely within the defined work site boundaries. There will be a combination of small rigid vehicles



(6.4m SRV), medium rigid vehicles (8.8m MRV) and heavy rigid vehicles (12.5m HRV) accessing and egressing from the site shown overleaf.



(Source: AS2890.2: 2002)

Based on similar developments in the past, the construction of the proposed development is expected to generate the following truck movements during excavation and construction:

- Demolition - approximately 4 to 5 trucks carrying out approximately 2 to 3 loads per day. This would not be every day as they would not be loading out every day of the demolition period.
- Excavation - approximately 5 to 8 trucks carrying out approximately 5 to 6 trips per day – i.e. 40 truck movements per day. This would not occur every day as they would not be loading out every day of the construction period.
- Large Concrete Pours – typically there are approximately 10 major concrete pours and a similar number of minor pours. Major pours would take approximately 6 hours to pour with 8 trucks per hour or 40 to 50 truck movements per day. Smaller pours would have a similar amount of truck movements per hour however the duration would be a lot shorter say 3 to 4 hours maximum. Small pours 9-15 trucks per day. Large pours 20-30 trucks per day/2-3 trucks per hour
- General Deliveries - these would occur intermittently throughout the project with the major deliveries being reinforcing steel and bricks. The remainder would generally comprise smaller truck deliveries.

The above is subject to confirmation upon appointment of a construction company, which generally occurs post development approval.

### **Pedestrian and Cyclists**

All construction activity will take into consideration of pedestrians and cyclists. Advanced warning signage will be in place to warn pedestrians / cyclists that they are approaching a construction work site and detour signs will be in place when required. In this regard, a suitable pedestrian / cycle route will be provided throughout the entire construction period.

In particular, certified Roads and Maritime accredited Traffic Controllers will be on site at all times during construction to direct / guide any pedestrian / cyclist movements in the immediate vicinity of the construction site.

Only authorised personnel will be permitted within the work site, whilst within the confines of the work site, all personnel will be attired in correct PPE and strictly adhere to all rules and regulations within the construction site.

### **Access to Neighbouring Properties**

All neighbouring properties with via De Mestre Place are to have their access maintained at all times. Should access to these existing properties be obstructed at any stage of the construction, temporary access arrangements to the satisfaction of the occupants and Council shall be provided.

Consultation with all nearby residents and businesses will be ongoing and be updated on a regular basis at key construction stages.

All residents and businesses in the work site vicinity will also be provided with the site manager's contact details.

## **Tradesman and Contractor Parking**

All employee and tradesman shall utilise public transport unless making a delivery, which will be coordinated by the construction manager.

## **Traffic Control Plans**

A Traffic Control Plan (TCP) is defined in the Roads and Maritime's *Traffic Control at Worksites Manual* Manual as a diagram showing signs and traffic control devices arranged to warn traffic and guide it around, past or, if necessary, through a work site or temporary hazard.

Accordingly, TCPs are to be ultimately prepared for the various stages of construction and enable the appointed construction company to fulfil its obligations and the requirements of the relevant authorities. In this regard, the TCPs are typically designed to address the following matters during construction where applicable:

- use of traffic control devices to warn and inform drivers of changes to the usual road conditions
- use of traffic controllers to control the movement of construction vehicle movements in or out of the site
- use of traffic controllers to ensure the safety of pedestrians walking past the work site
- provision for all road users and their safety
- provision for construction vehicle and plant movements
- parking restrictions and parking facilities.

## **Works Zone**

Any requirements for Works Zone must be discussed in close consultation with the CBD Coordination Office and City of Sydney.

## 5. PARKING IMPLICATIONS

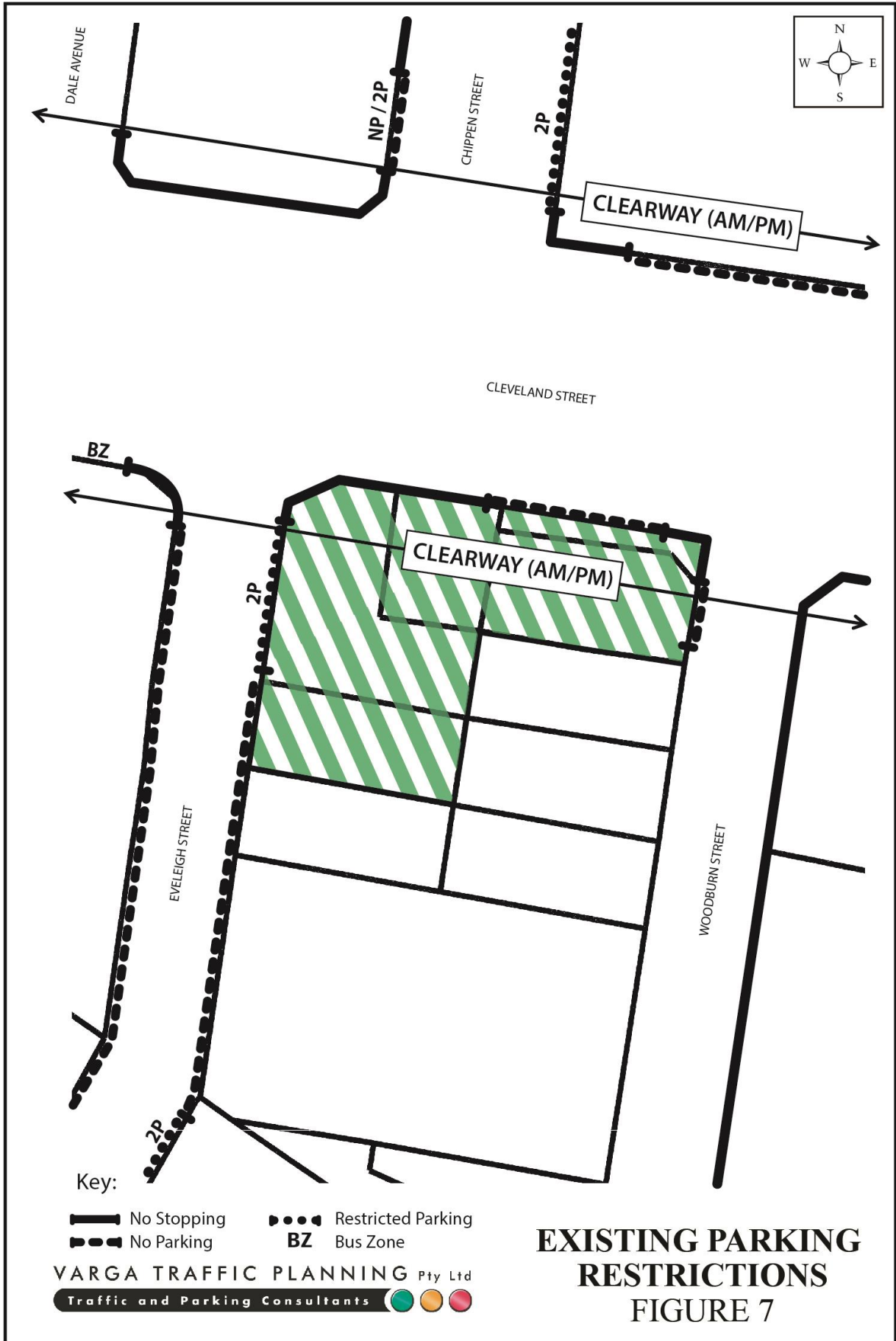
### Existing Kerbside Parking Restrictions

The existing kerbside parking restrictions which apply to the road network in the vicinity of the site are illustrated on Figure 7 and comprise:

- CLEARWAY restrictions along both sides of Cleveland Street during commuter peak periods
- NO STOPPING / NO PARKING restrictions along both sides of Cleveland Street at all other times including along the entire site frontage
- NO PARKING restrictions along the western side of Eveleigh Street
- 2 HOUR PARKING restrictions along the eastern side of Eveleigh Street including along the site frontage
- NO STOPPING restrictions along the eastern side of Woodburn Street
- generally UNRESTRICTED kerbside parking along the western side of Woodburn Street including along the site frontage
- BUS ZONES located at regular intervals along both sides of Cleveland Street.

### Off-Street Car Parking Provisions

As mentioned in the foregoing, the site lies within the *State Significant Development Site* as listed within *Schedule 2* of the *State Environmental Planning Policy (State and Regional Development) 2011*, and is also within *Zone MD (Major Development)* as stipulated within the *State Environmental Planning Policy (Major Development)*. However, *SEPP (Major Development) 2005* does not specify any off-street parking requirements, and notes that:



**EXISTING PARKING  
RESTRICTIONS  
FIGURE 7**

### 3 Relationship with other environmental planning instruments

All other environmental planning instruments do not apply to the Redfern-Waterloo Authority Sites, except for other State environmental planning policies.

It is noted in this regard that the availability of on-street parking in the surrounding area is severely constrained, as follows:

- kerbside parking is prohibited on a 24 hour basis in Cleveland Street and Regent Street by Clearway and No Stopping/No Parking restrictions
- the majority of both sides of Eveleigh Street are subject to No Parking restrictions in the vicinity of the site
- kerbside parking is also constrained in Woodburn Street due to its narrow width and No Stopping restrictions which extend along one side of the street for its entire length.

The proposed development therefore endeavours to accommodate its parking needs within the site, thus reducing any potential external impacts on the limited availability of on-street car parking.

A number of parking spaces will also be allocated to the servicing needs of the proposed retail shop, the hotel and the proposed wine bar to enable each of these uses to be serviced off-street using light commercial vehicles.

A limited number of parking spaces will be made available for the use of employees, with priority to be given to shift workers, particularly those starting at unusual times late at night or early in the morning when the number of public transport services available in the area may be more limited, and when staff safety considerations must also be taken into account.

The geometric design layout of the proposed car parking facilities have been designed to comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 1 - Off-Street Car Parking AS2890.1* and *Parking Facilities Part 6 -*

*Off-Street Parking for People with Disabilities AS2890.6* in respect of parking bay dimensions, ramp gradients and aisle widths.

## **Conclusion**

Based on the analysis and discussions presented in this Traffic & Parking Assessment Report, the following conclusions are made:

- the subject site is located within *Major Development Zone* and is only subject to the relevant traffic and parking controls stipulated within *State Environmental Planning Policies*
- the subject site has excellent connectivity to existing public transport services, car share services and cycling networks
- a work travel plan can be prepared for future hotel/retail staff and a transport access guide can be prepared for future residents/hotel guests to further encourage the use of sustainable modes of transport
- a detailed Construction Traffic Management Plan (CTMP) will ultimately be developed post development application approval to obtain construction certification, however, its general principles and requirements have been outlined in this report
- the proposed development is not expected to result in any appreciable increase in the traffic generation potential of the site when compared with the previously approved development on the site
- the proposed development will make provision for adequate off-street car parking facilities in an effort to minimise any external impacts on the very limited availability of on-street parking (due to the extensive Clearway, No Stopping and No Parking restrictions that apply in the surrounding area)

- the proposed development makes generous provision for sustainable modes of transport with 60 bicycle parking spaces proposed plus an additional 15 motorbike parking spaces
- all loading/servicing activities associated with the development will be undertaken by light commercial vehicles that can be satisfactorily accommodated in conventional parking spaces proposed within the site
- residential garbage collection can be satisfactorily undertaken in Eveleigh Street, as presently occurs in the lane

On the above basis, it is concluded that the proposed mixed-use development is supportable on traffic planning grounds, and is therefore recommended for approval.