

BEFORE THE GORE DISTRICT COUNCIL HEARING PANEL

UNDER the Resource Management Act
1991

IN THE MATTER an Application by GTM
Developments Limited for
Resource Consent to demolish a
scheduled heritage structure and
to build and operate a
commercial building – 1 Irk
Street, Gore

SUBMITTER Foodstuffs South Island Limited

STATEMENT OF EVIDENCE OF JOSEPH PAUL DURDIN

THURSDAY, 16 JUNE 2016

1. INTRODUCTION

- 1.1 My name is Joseph Paul Durdin. I am a Chartered Professional Engineer (CPEng) and registered under the Chartered Professional Engineers New Zealand Act 2002. This qualification means I have been reviewed by the registration authority and deemed to be competent to practice in my area of expertise. I am a Member of the Institution of Professional Engineers New Zealand (MIPENZ) and a Practice Area Assessor.
- 1.2 I hold the technical qualification of Bachelor of Engineering with Honours in Civil Engineering from the University of Canterbury. Since graduating in 1999, I have worked exclusively in the traffic and transportation field as a consulting engineer. I have practiced in both New Zealand and Australia and developed specialist skills in road safety engineering, integrated transportation assessments and strategic transport planning.
- 1.3 I am co-author of New Zealand Transport Agency Research Report 422 'Integrated Transport Assessments' November 2010. Research Report 422 provides national guidance to improve transportation assessment practices in New Zealand.
- 1.4 I am a Director of Abley Transportation Consultants Limited. The firm undertakes specialist transportation related commissions for local, regional and central government as well as private companies, individuals and community groups.
- 1.5 In preparing this evidence I have read and reviewed:
- (a) The Foodstuffs South Island Limited submission on the proposed development;
 - (b) The Application documentation insofar as it pertains to transport matters;
 - (c) The parking assessment prepared by MWH on behalf of Gore District Council, which forms part of the s42A report; and
 - (d) Parking supply and demand information on streets surrounding the subject site; and

- (e) A variety of documents and information sources as referenced throughout my evidence.
- 1.6 I have read and agree to comply with Code of Conduct for Expert Witnesses (Environment Court Practice Note 2014). This evidence is within my area of expertise except where I state that I am relying on facts or information provided by another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

Scope of Evidence

- 1.7 My evidence addresses the adequacy of the parking arrangements of the proposed commercial development at 1 Irk Street in Gore. It is structured in the following manner:
- (a) Proposal description
 - (b) Parking requirements
 - (c) Parking generation
 - (d) Receiving environment
 - (e) Assessment of parking shortfall;
 - (f) Review of Councils s42A Report;
 - (g) Summary; and
 - (h) Conclusion

2. PROPOSAL DESCRIPTION

- 2.1 The proposed activity is the demolition of a scheduled heritage structure (former Gore Methodist Church) and construction of a two storey commercial building incorporating offices and a café. The office component features nine separate units that collectively will have a Gross Leasable Floor Area (GLFA) of 1,269 m² and the café will have a GLFA of 135 m².
- 2.2 The proposal includes for one vehicle access point off Fairfield Street. The vehicle access services 15 proposed on-site parking spaces. I understand the Applicant has also entered into an agreement with the

RSA to lease two car parking spaces to address the parking shortfall identified by Council's consultants.

3. **PARKING REQUIREMENTS**

3.1 The minimum off-street car parking requirements for offices and cafés (assessed as a restaurant) are detailed in Rule 5.9.2 of the Gore District Plan, as:

(a) Offices *“one staff park per 50m² of gross floor space or part thereof”,* and

(b) Restaurants *“One staff car park per 2 staff or part thereof on the site at any one time, plus one car park per 4 persons to be accommodated in the restaurant”.*

3.2 It is important to note that the Applicant has only specified the GLFA for the office space; however, the parking requirement is based on gross floor space (GFA). Based on a review of the proposed development plans, I have estimated that the total GFA of the office component is approximately 1,540m².

3.3 Using 1,540m² GFA, the office component of the proposed development generates a minimum off-street parking requirement of 31 car parking spaces.

3.4 Working on the assumption that the café will accommodate up to 50 people and require 4 staff (as per the MWH assessment), the café component of the proposed development generates a minimum off-street parking requirement of 15 car parking spaces (13 for visitors and 2 for staff).

3.5 In total, a minimum of 46 off-street car parking spaces are required for the proposed development. The proposed on-site provision of 15 car parking spaces therefore represents a shortfall of 31 spaces.

3.6 The agreement between the Applicant and the RSA to lease two car parking spaces is noted and acknowledged; however, 5.9.2 (2) specifically requires parking space *“... to be provided on the site of the activity requiring them.”* Accordingly, these spaces cannot be counted as part of the overall on-site parking supply when considering the extent of the non-compliance.

4. **PARKING GENERATION**

- 4.1 The minimum parking requirements set out in District Plans are commonly (but not always) set at a level to accommodate most, if not all, of the typical peak parking demand generated by an activity. Where activities are in commercial centres, such as town centres, it is reasonable to expect that some parking demand will be accommodated by on-street parking and public off-street parking areas. The key is striking the appropriate balance between on-site supply and the demand that is generated by individual activities.
- 4.2 I have undertaken an assessment of the appropriateness of the minimum parking rates specified in the Gore District Plan by reviewing them against typical peak parking demands that are generated by similar activities. The most comprehensive and reliable source of New Zealand based information is contained in the NZ Transport Agency's Research Report 453 (RR543) 'Trips and Parking Related to Land Use' published in 2011.
- 4.3 RR453 identifies an average peak parking demand rate of 2.7 vehicles per 100 m² GFA for offices and 0.5 vehicles per seat for restaurants. Applying these rates to the proposed developed generates a parking demand of 42 vehicles for the office activity and 25 vehicles for the café activity (based on restaurant rates).
- 4.4 It is realistic to expect that some custom for the café will come from staff and visitors of the office component and from other nearby businesses. Therefore, I estimate that the parking demand generated by the café alone is more likely to be around half that of a typical standalone restaurant/café i.e. approximately 13 vehicles.
- 4.5 This suggests a peak parking demand of around 55 vehicles can be expected for the activity, which correlates relatively closely with the minimum District Plan requirement of 46 on-site parking spaces.
- 4.6 Research¹ by CBRE from 2012 shows that office workers in New Zealand have around 15m² of space per person, which is similar to the global average. This suggests that around 85 staff may be employed in

¹ <http://www.cbre.co.nz/aboutus/mediacentre/mediaarchives/Pages/042012.aspx>

the offices (based on GLFA). The number would be higher if GFA was used.

- 4.7 Analysis of 2013 census statistics show that the main means of travel to work for 79% of all Gore residents was to drive a car, truck or van. This is significantly higher than the national average of 59%. If the office component employs the number of staff estimated above, then the parking demand generated by the office component could be much higher (67 vehicles) than both the District Plan requirement and the estimate derived from RR453. The fact that people in Gore have a much greater propensity to drive to work than the national average suggests the estimates derived from RR453 are likely to be conservatively low.
- 4.8 Collectively, the evidence points towards a significant parking shortfall for the proposed development.

5. RECEIVING ENVIRONMENT

- 5.1 I instructed a colleague of mine, Ms Bridget Southey-Jensen, to visit the site and collect parking demand information to inform my assessment of the parking shortfall.
- 5.2 A site visit was conducted on Thursday 2 June. The site visit was conducted between 9:45am and 4:15pm. During this time, parking demand was recorded at 30 minute intervals between 10am and 4pm. Parking demand was recorded on streets surrounding the subject site, as well as the New World car park. The survey area is shown in **Figure A** and is colour-coded based on parking restrictions. The numbers show the parking capacity for each surveyed section. Where individual spaces are not marked an estimate of the parking supply was made on site and then checked using Google Earth imagery to validate any assumptions.

Figure A: Surveyed Parking Areas Supply and Time Restrictions



5.3 The parking supply and demand relationship of unrestricted on-street car parking, and P60 and 2 hour metered on-street car parking is illustrated in **Figures B** and **C** respectively. These relationships assist in the understanding of whether the on-street supply can absorb longer-term parking generated by the office activity and shorter-term activity generated by the café that cannot be accommodated on site.

Figure B: Unrestricted On-Street Parking Demand Profile

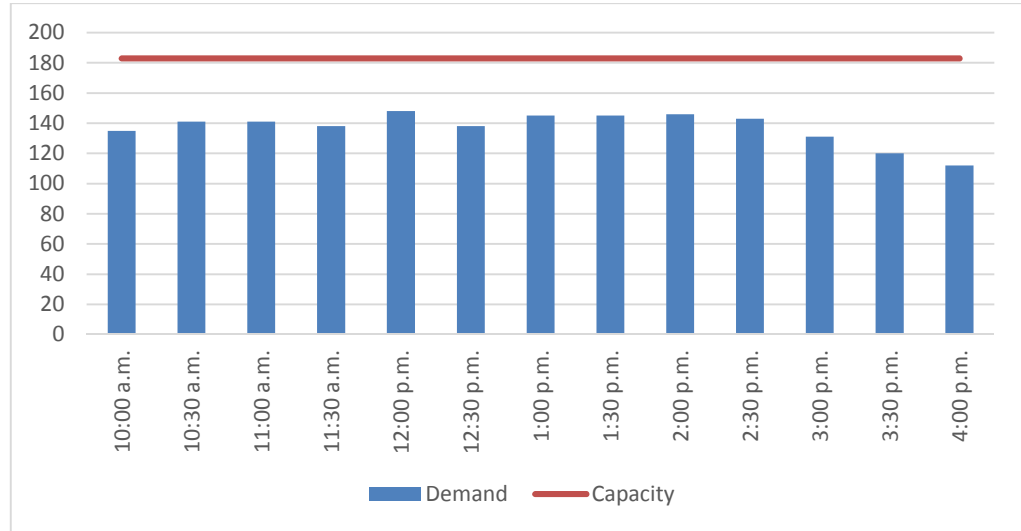
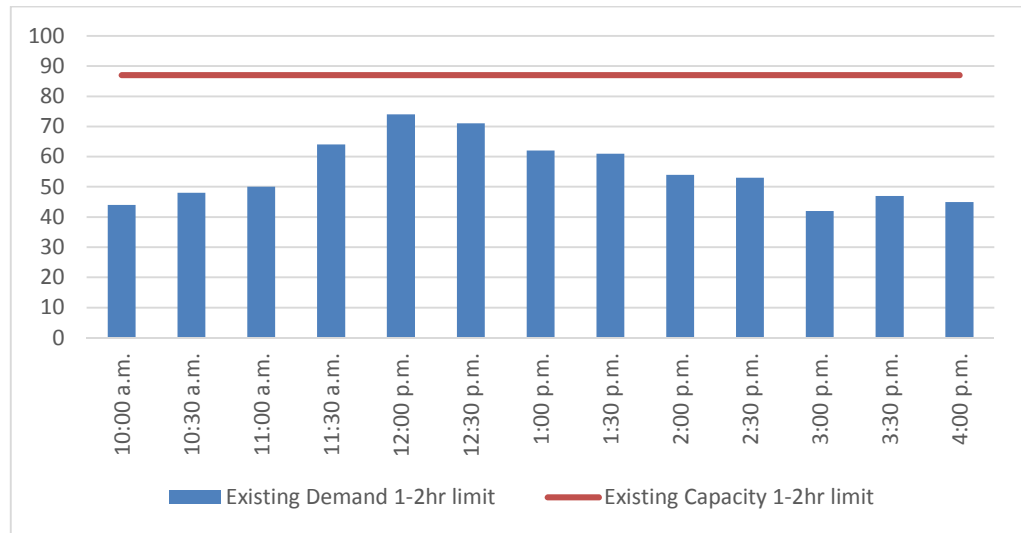
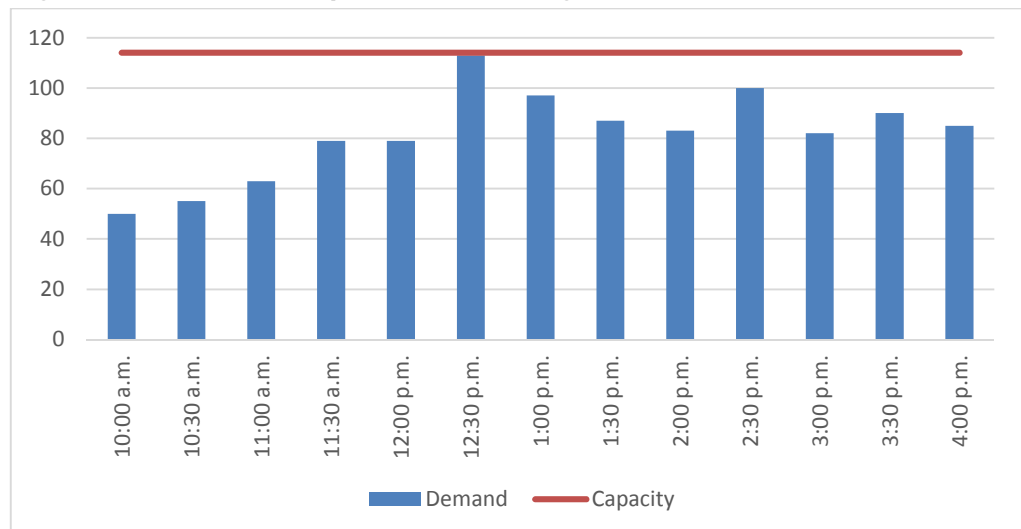


Figure C: P60 and 2 hour Metered On-Street Parking Demand Profile



5.4 **Figure D** shows the parking supply and demand relationship of New World supermarket adjacent to the proposed development.

Figure D: New World Supermarket Parking Demand Profile



- 5.5 The survey of the unrestricted parking areas shows that occupancy levels are already relatively high, particularly between 10:30am and 2:30pm when occupancy is in the order of 75 – 80%. Time restricted and metered parking has a more peaked profile with parking occupancy being noticeably higher between 11:30am and 1:30pm (occupancy $\geq 70\%$) than times at the start and end of the surveyed period.
- 5.6 Interestingly and importantly, the New World supermarket car park reached occupancy at 12:30pm and was consistently above 70% occupancy thereafter.
- 5.7 My colleague noted that during the survey, school children came into the town centre at lunch time and did busking performances. This event may have resulted in higher than normal parking demand in the vicinity of the busking area, particularly on Irk Street and in the New World car park, but to a lesser extent elsewhere.
- 5.8 Overall, the surveys indicate there is only a small amount of spare capacity within the receiving environment to accommodate additional parking demand without reaching practical capacity. The practical capacity for on-street parking is typically defined at 85% occupancy². At or below this level of occupancy, the next arriving customer or visitor is able to readily find a reasonably convenient parking space. When occupancy exceeds the practical capacity, drivers are likely to experience delays and frustration while searching for a parking space. Practical capacity is often used to determine the adequacy of a parking system.
- 5.9 Occupancy rates above about 75% typically signify the threshold where parking management techniques need to be explored before parking issues manifest. That way measures can be put in place before parking reaches practical capacity.
- 5.10 Any proposed new development should therefore provide sufficient on-site parking to avoid practical capacity of public parking areas from being reached.

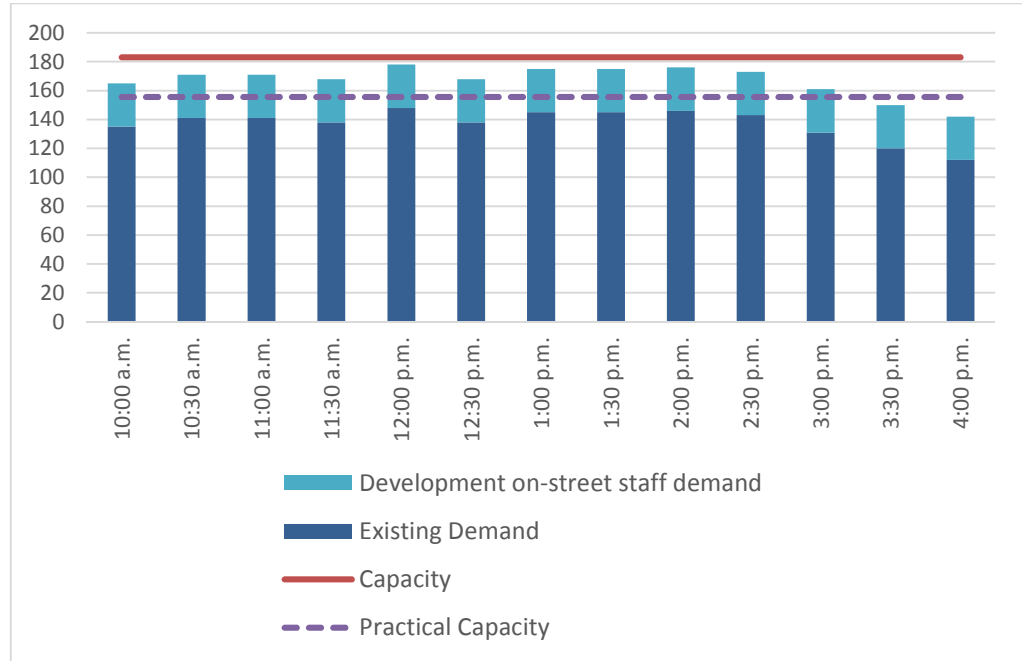
² <https://at.govt.nz/media/1119147/Auckland-Transport-Parking-Strategy-May-2015.pdf>

6. **ASSESSMENT OF PARKING SHORTFALL**

- 6.1 In the preceding sections I have compared the proposed parking supply with the minimum parking requirements of the District Plan and the parking demand observed for similar activities. I have also carried out a sensitivity test from first principles using independent research from CBRE and journey to work information from the 2013 census for the Gore District to check the estimates derived from RR453. All approaches confirm that parking demand will substantially outstrip the proposed on-site parking supply.
- 6.2 The following diagrams show the anticipated change in on-street parking demand and occupancy if the proposal goes ahead in its current form. The dark blue bar shows the existing parking demand and the light blue bar shows the anticipated overspill using estimates derived from RR453.
- 6.3 In developing the figures, I have assumed that the on-site parking area would be used by staff only i.e. all customer parking associated with the café would park on-street in time restricted (greater than 30 minutes) and/or metered parking areas, while staff parking unable to be accommodated on-site would occur in unrestricted parking areas.

6.4 **Figure E** shows that the projected demand for unrestricted on-street car parking would be likely to exceed practical capacity for the majority of the day.

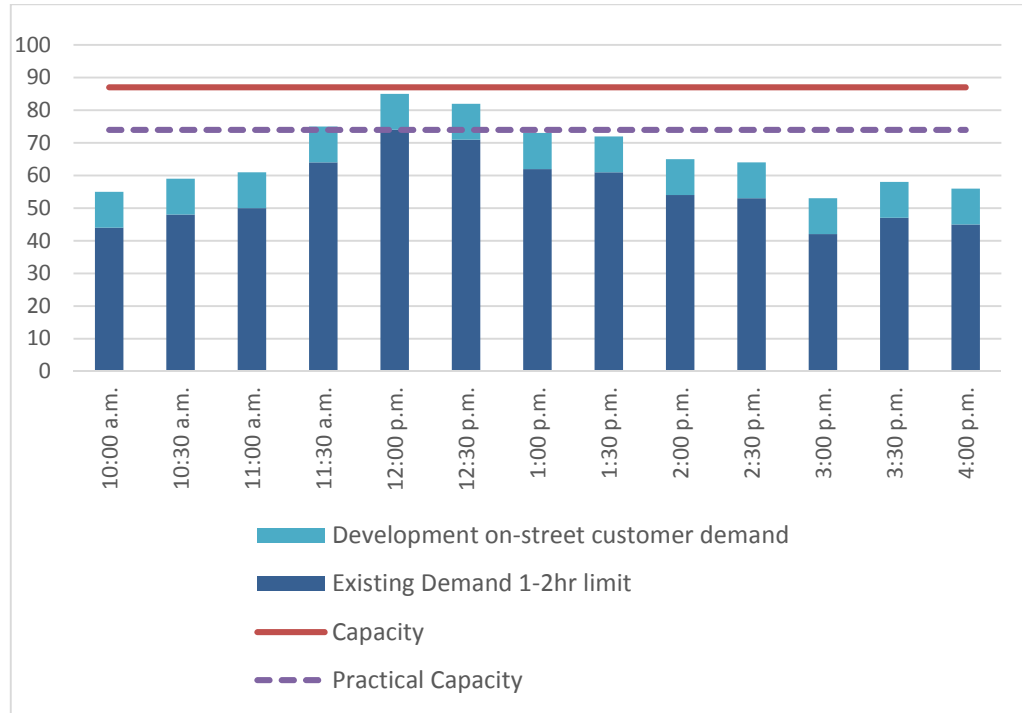
Figure E: Anticipated Change in Unrestricted On-Street Parking Demand



6.5 This will manifest in longer-term commuter parking extending beyond the survey area, potentially to streets outside the town centre that have a residential function. It is also probable that some shorter-term parking will be occupied by longer-term parkers, which the MWH parking assessment notes is already occurring. This behaviour is likely to be exacerbated if there is an under supply of unrestricted car parking spaces, resulting in greater utilisation of time restricted parking spaces and other convenient parking areas, such as the New World car park.

6.6 **Figure F** shows that the projected demand for shorter-term time restricted and metered parking could generally be accommodated below practical capacity, except for the busy period between 12pm and 1pm.

Figure F: Anticipated Change in Time Restricted / Metered Parking Demand



6.7 As noted earlier, when parking occupancy exceeds practical capacity, the next arriving customer or visitor is likely to experience delay and frustration while searching for a parking space. This is the main concern of Foodstuffs, as they anticipate increased use of their large and convenient off-street parking area directly opposite the subject site if on-street parking opportunities are significantly reduced by the proposed development.

6.8 The New World car park is provided to meet the parking demands of staff and customers, and not parking associated with adjacent activities. As the parking survey shows, the New World car park currently experiences consistently relatively high levels of occupancy (>70%) and any reduction in that from unrelated activities is unwanted and inconsistent with the purpose of the Resource Management Act to avoid, remedy, or mitigate any adverse effects of activities on the environment.

- 6.9 The parking survey also shows (by coincidence) that short-term visitors to the Gore Town Centre already appear to utilise the convenience and supply of the New World car park, as evidenced by the spike in parking demand during the school children's lunchtime busking performance. Whether the spike in parking demand was associated with this event or simply reflective of people travelling to the supermarket during their lunch break is largely immaterial. The point is that the supermarket car park either experiences a very high peak parking demand or is used by unrelated activities on occasions when on-street parking occupancy is high. Either way, Foodstuffs are concerned about the prospect of this situation being exacerbated.

7. **REVIEW OF COUNCIL'S S42A REPORT**

- 7.1 I have read the Parking Assessment prepared by MWH on behalf of Council. There are a number of aspects of the report that I wish to comment on. For convenience these are presented in the same order as the MWH report and utilise the same section headings.

Parking Demand for the Proposal

- 7.2 I not agree with the following aspects of the District Plan on-site parking requirement assessment:
- (a) The requirement for a loading bay;
 - (b) The use of GLFA instead of GFA.
 - (c) The calculated off-street parking requirement.
- 7.3 The MWH assessment states "*While no loading bay is required for offices, one such parking space is needed for 'Other retail and hire activities'.*" However, in the preceding sentence the assessment has applied the activity classification of a restaurant to the café, which I consider is correct. The 'restaurant' activity classification does not have any dedicated loading bay requirement.
- 7.4 As noted earlier in Section 4 of my evidence, the Applicant utilised GLFA in the parking requirement calculation instead of GFA. MWH also adopted GLFA. The District Plan parking requirement uses the term "*gross floor area*", which is distinctly different from "*retail floor area*",

which is used for determining the parking requirement of other activities including supermarkets.

- 7.5 The use of GLFA instead of GFA results in an underestimate of the minimum off-street parking requirement of some 5 parking spaces for the office component of the activity (31 spaces required instead of 26).

Car Park Layout

- 7.6 The proposed parking spaces have dimensions of approximately 4.9m deep by 2.6m wide serviced by an aisle that is approximately 7.2m wide. The Gore District Council's Subdivision and Development Bylaw 2011 requires 90-degree parking spaces to have dimensions of 5.0m x 2.5m with a minimum aisle width of 5.8m for single lane operation and 8.8m for dual lane operation. The dimensions of the proposed parking layout satisfy the requirements for single lane operation but not dual lane.
- 7.7 Regardless of the above, even if the spaces technically satisfy the above dimensions, this does not necessarily mean the spaces will be accessible. The New Zealand Standard for off-street parking facilities, AS/NZS 2890.1:2004 Parking Facilities Part 1: Off-Street Car Parking, stipulates additional design requirements, including a design envelope around a parking space that is to be clear of columns, walls and other obstructions. Very specific guidance is provided on the placement of columns.
- 7.8 This requires any column on the edge of a parking space to be located at least 3.65m from the head of the parking space and at least 0.75m from the entry point of the space. In this instance the columns are located at the entry point of the space, which suggests the space is unlikely to be inaccessible, particularly if other dimensions (space width and/or aisle width) are minimums.
- 7.9 I instructed a colleague of mine, Mr Andrew Wilson to use computer aided design software and Auto-turn (the industry standard simulation package for assessing vehicle swept paths) to assess the parking layout. Using the Gore District Council's 90th percentile design vehicle (as outlined in the Subdivision and Development Bylaw 2011) Mr. Wilson established that the design vehicle would only be able to access car park spaces 1, 2 and 3 in one turning manoeuvre, which is the requirement of Rule 5.9.2 (6) (g) of the Gore District Plan. Mr Wilson

observed that the specified turning radii of the design vehicle was large compared to other design vehicle standards.

- 7.10 To verify this, Mr. Wilson checked his analysis with the 85th percentile design vehicle detailed in AS/NZS 2890.1:2004. He confirmed the 85th percentile design vehicle of that Standard is able to manoeuvre into spaces 1, 2, 3, 5, 7, 10, 11, 12, 13 and 14 in one turning manoeuvre. By contrast spaces 4, 6, 8 and 15 would remain inaccessible in one turning manoeuvre.
- 7.11 It is important to note that both assessments utilised space 9 for manoeuvring, on the basis of this car park being subject to an access easement as noted in the MWH assessment, and not suitable for parking.
- 7.12 Technically, the majority of the car parking layout is inaccessible based on the Gore District Council's 90th percentile design vehicle. If this vehicle is indeed representative of the Gore vehicle fleet, which may be possible for a rural town, then the car park is likely to be underutilised because of the difficulty of access – further compounding the extent of off-site parking likely to take place.
- 7.13 However, if the Gore District Council's 90th percentile design vehicle is overly conservative, then the majority of the car park is likely to be accessible. Mr Wilson's analysis also demonstrated that all spaces could be made fully accessible by shifting the columns outside of the design envelope and by shifting spaces 10 through 15 slightly closer to the Fairfield Street access and making space 15 wider.
- 7.14 If these modifications were incorporated into the development proposal, then I would be comfortable in assessing the site on the basis of it having 14 accessible parking spaces. In its current form it has a maximum of 10 and a minimum of 3 based of the Gore District Council's 90th percentile design vehicle.

On Street Parking Survey

- 7.15 MWH conducted two on-street parking surveys. The survey areas for both surveys were different and collectively varied slightly to the area surveyed by my colleague Ms. Southey-Jensen. The MWH surveys

were not an expansive and focused on parking opportunities closer to the subject site than the survey undertaken by my colleague.

- 7.16 The initial parking survey indicated that unrestricted parking was essentially fully occupied and above practical capacity between 10am and 3pm. The second expanded parking survey indicated more unrestricted spaces were available with occupancy levels around 70% - 75%, which is similar to the 75% - 80% occupancy levels observed by my colleague Ms. Southey-Jensen.
- 7.17 Occupancy levels of short term parking spaces were approximately 10% lower in the MWH survey than in the survey conducted by Ms. Southey-Jensen. Further detailed analysis of the variance showed the main difference was in the metered spaces on Irk Street, which had higher occupancy during the June survey, particularly around the middle of the day.

Assessment

- 7.18 MWH assess the ability of the receiving environment to absorb overspill parking demand generated by the development on the basis of the parking requirements of the District Plan. Specifically, the assessment assumes that the parking requirement for the café component for the development would be fully accommodated on street – 12 spaces, and that 28 spaces are needed for the office component of which 12 can be accommodated on site.
- 7.19 I am of the opinion that the analysis undertaken by MWH in respect of longer-term parking associated with the office component is flawed in multiple respects, including:
- (a) Use of GLFA instead of GFA to calculate parking requirements;
 - (b) Use of parking requirements to estimate overspill instead of estimated parking demand; and
 - (c) Assuming that all unoccupied spaces on-street can be utilised by the development proposal thus taking parking occupancy up to full capacity.
- 7.20 I have established earlier that the parking requirement for the office component should be 31 spaces and not 26 on the basis of using GFA

- instead of GLFA. I have also established that actual parking demand generated by the development will almost certainly exceed the minimum off-street parking requirement by some margin. Using RR453 estimates, that demand generated by the office component will be in the order of 42 vehicles, while a first principles estimate based on average space per office worker and the propensity to drive to work in Gore suggests the development could generate higher parking demand still.
- 7.21 I accept that compliance with the District Plan parking requirements is not an absolute requirement. There is a balance to be struck between on-site supply and reliance on off-site parking, particularly on-street. Parking demand is likely to be around 55 vehicles (based on RR453) whereas on-site supply is only a maximum of 14 spaces – subject to layout modifications. As a result, there is a reliance on off-site parking areas to accommodate around 31 vehicles. The current balance is 25% on-site, 75% off-site. In this instance, the balance is inappropriate.
- 7.22 Even using the District Plan parking requirements as a proxy for demand, the balance would be 30% on-site, 70% off-site. Again, I would also consider this to be substantially short of a balanced outcome. It certainly is not consistent with the purpose of the Resource Management Act to avoid, remedy, or mitigate any adverse effects of activities on the environment.
- 7.23 That said, I accept there is likely to be sufficient spare capacity in the receiving environment to accommodate parking demand generated by the café component of the proposed development at all but the busiest period between 12pm and 1pm. Given the short duration of demand exceeding practical capacity, I believe any adverse effects associated with this are likely to be minor in nature and consistent with situations experienced in other vibrant town centres.
- 7.24 However, there is insufficient capacity in the receiving environment to accommodate additional longer-term parking without generating significant adverse effects. The MWH assessment identified capacity for up to 14 additional vehicles in existing unrestricted parking spaces within a convenient walking distance of the proposed development. However, actual long-term off-site parking demand is likely to be in the order of 30 spaces.

- 7.25 My Figure E shows that if the development was to go ahead in its current form (subject to on-site layout modifications) then unrestricted on-street parking in the wider area would exceed practical capacity for the majority of the day.
- 7.26 This is consistent with the MWH assessment, which concludes that the *“...parking shortfall is likely to result in most of the available short and (long) term parking in the surveyed areas within immediate vicinity of the proposal becoming occupied as a result of the proposal.”*
- 7.27 The MWH assessment goes on to recommend that Council *“... review the allocation of short and long term parking at least within the surveyed areas.”* My concern with this recommendation is that there will be no opportunity to juggle short and long term parking provisions because both would effectively be fully occupied. Adverse effects could only be avoided, remedied or mitigated if:
- (a) More parking was provided on-site;
 - (b) More public parking was provided; and/or
 - (c) More private parking for the development was provided off-site.
- 7.28 The latter would need to involve the formal lease of a number of nearby car parking spaces to appropriately support the proposed activity. As an absolute minimum, I am of the view this would need to be for at least 19 spaces³ to accommodate the minimum staff parking requirements of the activity as set out by the District Plan. These would need to be locked into a tenure of the life of the building, so no less than a long-term lease, and linked to any granted resource consent so Council had a mechanism for reviewing adherence to any such provisions.

³ Staff parking requirement is 31 spaces for the office component and 2 spaces for the café component, less the proposed on-site supply of 14 spaces.

8. **SUMMARY**

8.1 The following summarises the key findings from the assessment I have undertaken to inform my evidence:

- (a) The proposed development generates a minimum off-street car parking spaces required of 46 car parking spaces. This is 31 spaces above the proposed on-site supply.
- (b) The proposed development will generate a parking demand of around 55 vehicles and potentially more.
- (c) The use of existing on-street unrestricted parking areas is currently relatively high.
- (d) There is insufficient capacity within the receiving environment to accommodate the expected overspill longer-term parking associated with the office component of the proposed development.
- (e) There is sufficient spare capacity in the receiving environment to accommodate parking demand generated by the café component of the proposed development at all but the busiest period between 12pm and 1pm.
- (f) The proposed car parking layout does not provide accessible access to a number of parking spaces.
- (g) The MWH assessment underestimates the parking requirement for the development and applies flawed logic to ascertain if parking can be accommodated in the receiving environment.
- (h) The balance of on-site and off-site parking is inappropriate and will result in adverse effects on the receiving environment.

9. **CONCLUSION**

9.1 Based on the analysis completed to inform my evidence I have reached the following conclusions.

9.2 The proposed development provides insufficient on-site parking in its current form. The proposal, as it stands, will generate significant adverse effects, as there is insufficient capacity within the receiving on-street environment to accommodate the expected parking generation of the proposed activity without practical capacity being reached. If consent is granted to the application in its current form it will create

parking issues and impact on the operations and customers of other nearby businesses including the New World supermarket.

- 9.3 The inadequacy of on-site parking supply will transfer effects and costs to other parties, including ratepayers and Foodstuffs. Foodstuffs is likely to experience direct adverse effects through increased use of the New World car park by other vehicles unassociated with the supermarket activity. Although not an immediate effect, adverse effects may also be experienced in the longer-term should Foodstuffs wish to upgrade or expand the supermarket.
- 9.4 For the reasons outlined, I do not believe consent should be granted to the proposed development in its current form on transport grounds alone.



Joseph Paul Durdin

16 June 2016