Plan Change 43 – Transportation

and

Plan Change 44 – Works and Network Utilities

Appendix 3: Traffic Engineer's Report

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Dear Marius

PLAN CHANGE 43 – PARKING AND TRANSPORTATION STANDARDS

Matamata-Piako District Council (MPDC) have asked for advice and assistance preparing a District Plan Change (PC43) relating to Parking and Transportation, as part of their rolling review of the Matamata Piako District Plan.

In general, transportation issues, including parking and loading requirements, do not appear to be a significant concern in the district. Key points include:

- Consultation to date suggests that parking, loading and transportation do not appear to be a significant community concern
- Parking surveys suggest that utilisation and availability of parking in Te Aroha, Morrinsville and Matamata is satisfactory and consistent with similar urban centres
- Forecast population growth and commercial development (at 1% or less) is unlikely to result in significant issues in urban centres during the plan's ten year term
- There may be merit in reducing parking requirements in shopping frontages to reduce development costs, encourage development and other council objectives
- Staff have raised concerns about large vehicles loading and unloading in the road where land use has evolved and on site facilities become inadequate
- Staff consider it desirable for Council's road hierarchy to be consistent with national and regional classification systems.

This letter includes:

- An evaluation of the parking based on requirements in the MPDC District Plan, considering current guidelines national data and standards used in comparable districts (attachment A)
- Draft revisions for the parking requirements (Attachment B)
- A recommendation that MPDC remove the requirement for on-site parking and loading facilities for activities on defined shopping frontages (Attachment C)
- Draft text to clarify loading requirements, including an option for a management plan approach
- General recommendations for the functional classification of the District Roads into a hierarchy system consistent with regional and national systems.

1. Parking - General

The general aim of parking strategy is to balance parking supply and demand to meet:

- Community expectations – in terms of cost, availability, convenience, safety, environmental impacts, urban design and a range of other factors.

- Wider transport, land use and economic objectives – such as efficient use of the transport network, development densities and travel demand management.

The aim of managing parking in developments is adequately to protect the community from possible adverse effects of a surplus or shortfall in parking, such as safety, efficiency, accessibility and amenity. The number of spaces is one aspect parking, and generally fixed because of cost or space limitations. The District Plan requirements influence the supply of private parking spaces, can be used to trigger financial contributions towards public parking, and can require the management of parking and loading.

Outside town centres, and especially in rural areas (speeds greater than 70km/h), parking should generally be provided on site and adequate for a typically busy period (often taken to be 85%ile demand[1]). Demand for parking is generally related to the land use served. It is influenced by development and employment density, availability of passenger transport, car ownership, cost and economic vitality[1]. Attachment A includes a comparative evaluation of parking requirements. Attachment B includes suggestions for changes to MPDC's current requirements to match current guidelines or be more consistent with neighbouring councils based on the evaluation.

2. Town Centre Parking - Evaluation

In urban areas, where on-street parking can take place safely and where activities may share parking lower standards can be appropriate and may support other objectives, such as continuous frontages or increased density. In areas of mixed land use, such as town centres, parking demand is often reduced by the interdependence of complementary activities, such as shops, offices and cafes. Onerous parking demands can lead to development locating outside central areas to find cheaper land.

Current Situation

MPDC's Annual Customer Views Survey Report (May 2012) states that 85% of residents surveyed satisfied or very satisfied with parking in the District. The 2011 result was 83% and Council's target is 76% community satisfaction. The results for each ward show similar levels of satisfaction for Matamata (83%), Morrinsville (86%) and Te Aroha (85%). Although targeting responses for council-managed parking, the level of satisfaction suggests that off street parking is also adequate.

By comparison, Waipa's Community Satisfaction Surveys (2012) showed 79% satisfaction with parking in Cambridge and Te Awamutu. 62% of Hamilton Residents surveyed in the Hamilton City Council June 2012 residents survey were satisfied with Hamilton's central city car parking. 70% of Rotorua Residents were satisfied with central city parking.

Council surveyed parking in the town centres in 2012, which showed utilisation during the busiest times in the main shopping streets at 81% (75% to 89%). Attachment C presents an analysis of this information, combined with an assessment of development.

When streets nearby were included, utilisation was 59% (51% to 69%). Parking pricing strategies typically (e.g. Rotorua, Hamilton) target utilisation of approximately 70%, so the overall parking stock available within a short walk appears adequate, with more pressure in the main shopping streets.

Town	Car Parking Spaces	Spaces Adjacent to Shopping Frontage	Spaces in Other Streets Nearby	Total Number of Spaces
Te Aroha	Total available	23	85	108
	Total Car Parks	181	162	343

[1] Austroads Guide to Traffic Management Part 11: Parking

Town	Car Parking Spaces	Spaces Adjacent to Shopping Frontage	Spaces in Other Streets Nearby	Total Number of Spaces
	% utilised at max	87%	48%	69%
Matamata	Total available	167	496	663
	Total Car Parks	679	684	1363
	% utilised at max	75%	27%	51%
Morrinsville	Total available	54	189	243
	Total Car Parks	487	279	766
	% utilised at max	89%	32%	68%

Table 1. Parking Utilisation in Business Centres

The relatively small size of Matamata Piako's centres means that walking distance to car parking is not a significant issue, although it is a common source of complaints.

Shopping Frontages

The busiest streets typically match the sections denoted as shopping frontages in the District Plan maps. These areas are where MPDC wishes to encourage development and seeks high levels of amenity.

MPDC currently requires on-site parking for all activities. This can have unintended consequences and be contrary to other strategic objectives. As well as new development, a change of use or alteration to an existing building can lead to an increase in the number of parking spaces required. This can trigger a resource consent application if the spaces are not provided. In an established shopping area, this can be impractical or undesirable and dispensation is often provided.

Requiring on-site parking can adversely affect the economic viability of development and density. The openings in frontages can adversely affect amenity and pedestrian safety. Conservative parking requirements or cash in lieu can deter or displace development that you want in the town centre. Parking demand can be managed by methods such as licensing (such as residents' permits) time restrictions or charging for parking. In rural service centres such as Te Aroha, Morrinsville and Matamata, these can be unpopular. Councils face a challenge in finding an appropriate balance between requiring enough parking to allow convenient access for customers and discouraging development by requiring too much parking.

Sharing parking infrastructure in town centres, such as public car parks and on-street parking, can provide efficiencies that mean fewer spaces are provided. It also unbundles parking from development, which can facilitate alternative travel modes and support transport and land use integration, but that is unlikely to be a significant factor in Matamata Piako District.

A more flexible approach to parking in the central areas would reduce compliance and development costs and therefore facilitate development in areas where it is most desirable. Rotorua has changed to having no minimum parking requirement in the town centre. Hamilton currently has a single, lower standard (1 space per 160sqm GFA in the town centre compared to 1 space per 30 or 40 sqm in other areas) for all activities in the town centre and a reduced requirement (1 space per 80 sqm) for the commercial fringe and is proposing no minimum requirement in its draft plan. Waikato DC permits activities on properties with sole frontage on Main Street in Huntly, Bow Street in Raglan and Jesmond Street in Ngaruawahia where on-site parking spaces and a new vehicle entrance crossing are not provided.

Time, cost and licensing methods manage the demand side of parking and are better suited to a Local Government Act (Long Term Plan) approach. The District Plan influence on demand is by means of zoning and activity definitions. The District Plan has a significant impact on supply

(private on-site parking requirements, public on street by engineering standards, and public off-street through financial contributions (can also be by LGA development contribution).

A reduction in the requirement for on-site parking will lead to an increase in the demand for parking elsewhere unless travel habits change. There is therefore a risk and potential cost to the community if additional infrastructure is needed to accommodate the increased demand.

If MPDC reduces the requirements, the main decisions for MPDC include whether additional off-street parking to service shopping frontage areas is:

= Needed – now or long term.

  In MPDC most current parking demand is satisfied. Analysis of the existing and potential development in the business zones in the town centres suggests that the existing combination of off-street parking requirements and on-street parking is likely to remain sufficient for the foreseeable future as long as users are willing to walk up to 300m (2 -3 minutes). Budget restrictions limited investigation to coarse desktop analysis, summarised at attachment B. At 1% forecast population growth, there is little likelihood of significant issues arising over the next 10 years. However, in the long term it would be prudent for MPDC to consider what land may be appropriate for off-street parking options.

= Funded by development (indirectly – landlords – tenants - customers) or the local community (who are often customers for town centre activities).

  In essence, this is a decision whether to require a financial contribution such as cash in lieu of parking (or a development contribution) for any shortfall in on-site parking for shopping frontage activities or to allow the future cost of accommodating parking demand to fall to ratepayers. I consider that these are the heart of the towns and therefore should be considered as a shared facility.

Home Occupations

The District Plan requires (4.3.1,2) that home occupations:

= Be ancillary to residential or rural use

= Occupy no more than 10% of site or 150sqm

= Be carried out wholly within the dwelling or an accessory building

= Have 4 car parks if there is retailing.

Staff advised that there were few problems with home occupations but some concerns had been raised including:

= The four car park requirement being excessive if retail was a minor part of the activity (4 car parks is sufficient for 160sqm retail at 1 space per 40sqm GFA)

= A home-based hairdresser who complained about school parking taking up on-street parking that customers would otherwise use. In my opinion, the hairdressing activity should meet its own minimum requirements.

Since there have been few problems, there appears to be little reason to change. However, some flexibility for retail clearly ancillary to a home occupation appears appropriate. That would presumably be by means of an alteration to the performance standards (4.3.1 and 4.3.2) to permit a small proportion of retail. As long as it is ancillary to the home occupation activity and of a small scale (say 10sqm total for sales, storage and display) there is unlikely to be off site impact. Presuming a typical frontage width of 20m (less a driveway), there would be space for on-street parking directly in front of the dwelling for at least two cars, equivalent to 80sqm retail, so away from state highways and high speed rural areas there would be little risk. In rural areas, space on site is less likely to be a concern.

Suggested Actions for Parking

We suggest that MPDC recognises that there is not likely to be a significant problem from parking demand in the town centres:

- Considers the suggestions in Attachment B for changes to MPDC's current requirements for areas where parking demand is to be met on site to match current guidelines or be more consistent with neighbouring councils.
- Recognises that there is not likely to be a significant problem from parking demand in the town centres.
- In the business zone:
  - Outside the shopping frontages, continue to apply the on-site parking requirements, noting that there is still the opportunity for discretion in the assessment of resource consent applications.
- In shopping frontages:
  - Permit sites with sole frontage on shopping frontages where on-site parking spaces and a vehicle entrance crossing are not provided to be developed as permitted activities (similar to the Waikato DC option). This provides for flexibility for new development to improve continuity of frontages, and discourages small scale and inefficient use of land for example, for proprietor-only parking
  - Waive or reduce the parking requirement for changes of use or extensions up to 100% site coverage. This would reduce compliance costs and encourage development and use of existing buildings.
- Within three to six years, investigate and develop a parking management strategy and consider what land may be appropriate for off-street parking options. Following that, Council will have a better understanding of whether there is a higher potential for the need to manage (by time, charging or reallocation) existing on-street parking, whether or how to provide or encourage public parking sites and how to fund these options.
- Review the on-street parking allocation to ensure it remains appropriate for the demand. In business and commercial areas, the focus should be on commercial uses. As shopping frontage on-site spaces are lost, the use and allocation of on-street spaces will become more sensitive. Loading zones and short term customer parking would normally take priority, once mobility and accessibility basics such as bus stops and accessible spaces have been allowed for.

3. Loading

Staff raised concerns about large vehicles loading and unloading in the road where land use has evolved and on site facilities become inadequate. We suggest that loading expectations are clarified to trigger a requirement for a management plan where normal loading activities are not accommodated on site. We have suggested more frequently than monthly as "normal".

"Loading Space and Manoeuvring Dimensions

Unless operating in accordance with a parking and loading management plan approved by the Asset Manager Strategy and Policy Manager, MPDC, all activities except on sites with sole frontage on shopping frontages where on-site parking spaces and a vehicle entrance crossing are not provided shall provide dedicated on-site loading or servicing facilities that shall accommodate at least a courier van, and where larger vehicles are anticipated or service the site more frequently than monthly the greater of:

- *Where articulated vehicles or trucks and trailers are anticipated more frequently than monthly 90 percentile design two axled truck swept path and minimum loading space dimensions; and,*
- *Where articulated vehicles or trucks and trailers are anticipated more frequently than monthly, design in accordance with Road and traffic guidelines: RTS 18 - New Zealand on-road tracking curves for heavy motor vehicles."*

Access and egress for loading facilities must be achievable in a forward direction without reversing in the road reserve, and with no more than a 3-point turn on site. Loading and manoeuvring areas must be kept clear of obstructions.

For loading and servicing, the objective of the parking and loading management plan shall be to ensure that loading can take place with a less than minor impact on safety and efficiency of the transport network and road users. The parking and loading management plan shall at least include the frequency, type and timing of delivery vehicles and how conflict (safety, efficiency and parking) with pedestrian and vehicular traffic is to be avoided or minimised.

4. Function, Classification and Hierarchy of the District's Roads

The current District Plan does not define road hierarchy or its purpose. The MPDC District Plan identifies (Section 9.1.1) state highways and regional arterial roads by listing them and uses that classification to set performance standards for access. These access standards are being reviewed separately and the classification system and the performance standards must match.

The District Plan is a classification system which sets different standards for State Highways and Regional Arterials. It requires effects to be contained within sites, sets a lower traffic generation threshold to trigger assessment, and sets access standards. By inference, it protects the traffic carrying function of these corridors and prioritises though traffic over access functions. On that basis it is a traffic hierarchy that recognises the importance of the movement function of those roads.

The Development Manual Table 3.1 describes the following road types:

- Regional Arterial Roads (State Highways would be a special classification within Regional Arterial Roads)
- Collector Roads;
- Sub Collector Roads; and
- Local Roads.

Table 3.1 classifies Collector and Local roads in accordance with the indicative traffic volumes and provides some of the geometric and structural standards for the classifications.

The district's roads are generally low volume roads, with none above 10,000 veh/day. Four laning would not generally be considered until 14,000 – 20,000 veh/day and recent projects have required around 30,000 veh/day to achieve a funding priority. Auxiliary lanes such as right turn bays are rarely warranted unless there is around 2,000 veh/day (200veh/hr) and a high turning demand.

Figure 1 below is derived from MPDC's RAMM data and shows that the distribution of road sections and their traffic volumes does not necessarily match the Table 3.1 Indicative Traffic Volume. This shows that the current split for special consideration at arterial level (Theoretically above 2,500 veh/day and individually listed as regional arterials and state highways) is generally appropriate by traffic volume as well as function, with most arterials below the threshold at which auxiliary lanes would even be considered.

The remaining requirements such as sight distance, entranceway layout, etc. relate to managing individual vehicle conflict and risks at the transport corridor/land use interface and are common to all roads, mainly related to speed.

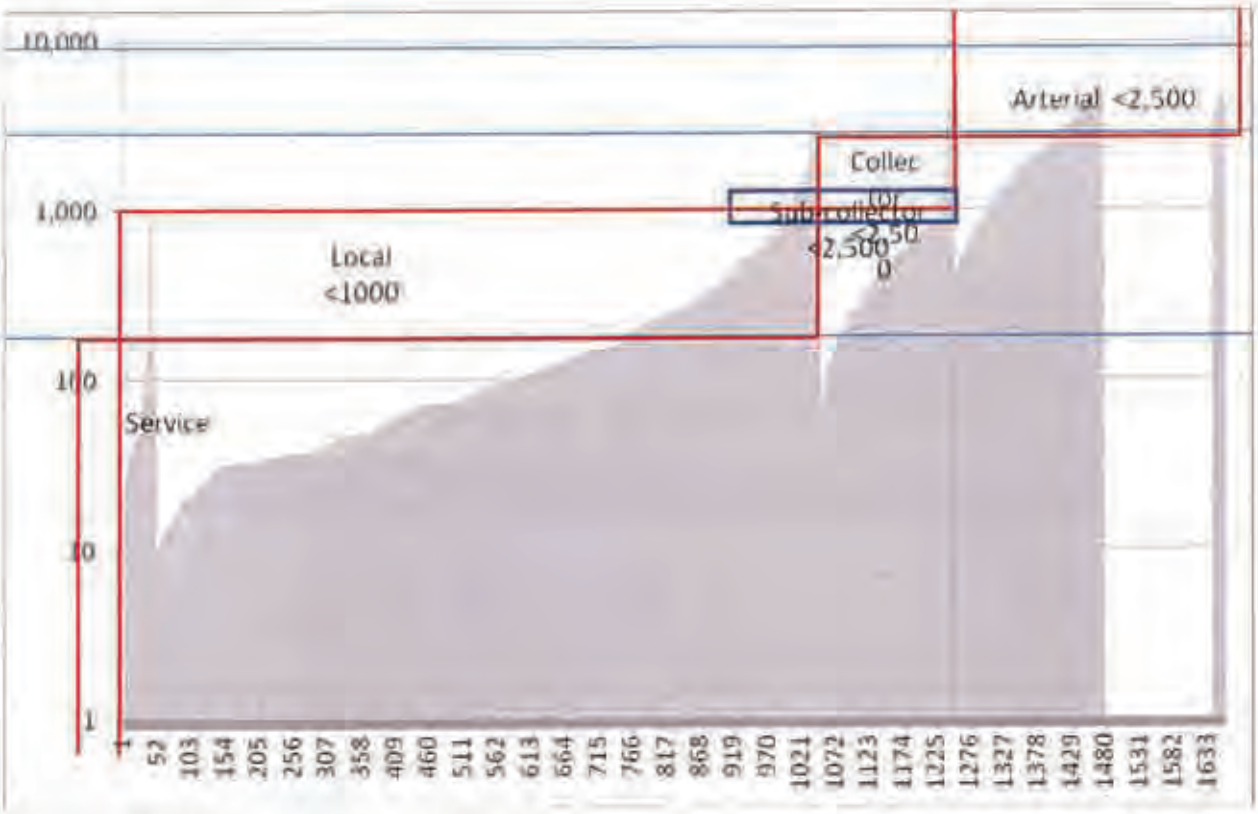


Figure 1. Comparison between road sections (numbered horizontally) and traffic volumes by class.

The DP states that Council may require the upgrading of existing roads necessary to serve any controlled, discretionary or non-complying activities. There may be merit, particularly for structure planning, for the DP classifications to be extended to include the Development Manual Table 3.1 classifications so that there is correlation between road descriptions and the expected cross-section for example. Knowing which existing low volume roads were to operate as collectors in future should be part of structure planning. Cross sections and standards to be applied to mitigation and interventions in response to subdivision and land use changes affecting roads which may have a more important movement function than their traffic volume suggests should reflect their intended function – not their current traffic volume.

The "Sub-collector" class adds little, but does little harm. If possible, their introduction to the District Plan should emphasise that the District Plan classifications relate to a functional hierarchy where the relative importance of the movement function of the road is the main criterion – not traffic volumes.

The Development Manual Table 3.1 classifications are broadly consistent with typical definitions. There a wide range of alternative definitions such as NZS4404 and recent information from NZTA, but I consider that these are too complex to be of much benefit in MPDC.

Yours sincerely

Alasdair Gray

Civil/Transportation Engineer

Attachment A: Comparative Evaluation of Parking Requirements

Activity	MPDC requirement	Sub-categories (where other TLAs have split the category into two or more activities)	Hamilton (proposed)	Waipa DC	Hauraki	Thames-Coromandel	Waikato	RTA Guide	Transfund RR209	RR 453 (average parking demand)	Assessment options	Comments / proposed change to MPDC Standard
Dwellings (being one household unit)	2 spaces per dwelling Note : One may be "stacked" where it does not interfere with shared access.		2 per household or dwelling Ancillary flats and apartment buildings – 1 per unit or flat	2 per unit	2 spaces for each dwelling or unit		1 car space per bedroom	1 space for each unit plus 1 space for each 5 x 2 bedroom units plus 1 space for each 2 x 3 or more bedroom units. Plus 1 space per each 5 units for visitors.	1.2 / unit	1.4 / unit	Per unit / dwelling Per bedroom	No change.
Home Occupations	4 spaces (involving retailing) 1 space per 2 persons employed (no retailing)		2 per household plus 1 per non-resident employee	1 for every non-resident employee	1 for each non resident employee	No fewer than two visitor parking spaces (in addition to the required two spaces for the house) shall be provided on the site.	In addition to residential requirements, I car space per employee plus I where the activity attracts clients to the site.				Per house Per employee	No change unless there have been problems.
Boarding houses, Hostels, Hotel Accommodation	1 space to every three persons designed to be accommodated plus 1 space per 2 staff members							Motel - 1 space for each unit plus 1 space for every 2 employees. Motels with functions rooms or restaurants extra standard.	Motel - 1.3 / unit	Motel – 0.7 / 100 sqm GFA Or 0.9 / occ unit	Number of units Number of residents GFA	Requirement appears appropriate, however category name could be changed to be more consistent with other TLAs. Recommend split into: Camping grounds / caravan parks, Visitor accommodation including motels, travellers accommodation
		Residential Centres	1 per resident plus 1 per four bedrooms					Hostels, nursing and convalescent homes: 1 space per 10 beds (visitors) plus 1 space per 2 employees plus 1 space per ambulance	0.3 / bed		Number of units Per occupant Per unit	
		Retirement Villages						Resident funded development Self-contained units: 2 spaces per 3 units (residents) plus 1 space per 5 units (visitors) Hostels, nursing and convalescent homes: 1 space per 10 beds (visitors) plus 1 space per 2 employees plus 1 space per ambulance Subsidised development: Self-contained units: 1 space per 10 units (residents) plus 1 space per 10 units (visitors) Hostels, nursing and convalescent homes: 1 space per 10 beds (visitors) plus 1 space per 2 employees plus 1 space per ambulance				

Activity	MPDC requirement	Sub-categories (where other TLAs have split the category into two or more activities)	Hamilton (proposed)	Waipa DC	Hauraki	Thames-Coromandel	Waikato	RTA Guide	Transfund RR209	RR 453 (average parking demand)	Assessment options	Comments / proposed change to MPDC Standard
Motel, Lodges, Camping Grounds, Caravan Parks	1 space per unit place plus 1 per two staff members.	Camping Grounds	1 per unit, camp site or caravan					1 space per caravan site				Requirement appears appropriate, however category name could be changed to be more consistent with other TLAs. Recommend split into: Camping grounds / caravan parks, Visitor accommodation including motels, travellers accommodation.
		Visitor Accommodation	1 per unit plus 1 per two staff. 1 loading / service space	Motel - 1 per unit	Motel - 1 space for each motel unit plus 1 for every 4 units			Motel - 1 space for each unit plus 1 space for every 2 employees. Motels with functions rooms or restaurants extra standard.	Motel - 1.3 / unit	Motel – 0.7 / 100 sqm GFA Or 0.9 / occ unit	Number of units GFA	Requirement appears appropriate, however category name could be changed to be more consistent with other TLAs. Recommend split into: Camping grounds / caravan parks, Visitor accommodation including motels, travellers accommodation
				Travellers Accommodation - 1 per bedroom or 1 per 4 occupants whichever is the greater	Travellers Accommodation - 1 for every 4 occupants.				Travellers Accommodation - 1.75 / resident (note only one facility surveyed)		Occupants Bedrooms GFA	
Clubrooms, Restaurants, Cafes, Churches and Mortuary Chapels, Funeral Directors.	1 space for ten persons the facility is designed to cater for, or 1 space per 10sqm Gross Floor Area. (Participants and spectators are to be catered for).	All places of assembly (except Libraries and Museums)	1 per 25sqm GFA 1 loading / service space	1 for every 15 sqm GFA or 1 for every 5 persons the facility is designed to accommodate, whichever is the greater	1 for every 25sq m GFA.		1 car space per 35 sq m GFA		0.4 / seat	Churches 22.4/100m² GFA Gymnasiums 4.5/100m²	Gross floor area Maximum occupancy	Suggest change activity name / split. Restaurants / licensed premises should be own category, with a requirement of 1 space per 10 sqm GFA or 1 per 4 seats or Clubrooms could be part of a different category. General requirement of 1 space per 25 sqm GFA appears appropriate.
		Restaurants and Licenced Premises	1 per 10sqm GFA 1 loading / service space	1 per 4 seats plus 1 per staff member	1 per 6m² public floor area	1 parking space shall be provided for every four patrons on the site that the activity is designed to accommodate plus 1 for every staff member employed on the premises.		15 spaces per 100 sq m GFA Or 1 space per 3 seats	2 / 100 sq m GFA	10.6/100m² GFA	Public floor area Design number of patrons and staff	
		Taverns		1 per 5 sqm of net public floor area	1 per 6m² public floor area (includes bars, restaurants and reception areas) and 1 per bedroom unit.		1 car space per 10sq m net public floor area.		11.4 / 100 sq m GFA	8/100m² GFA	Public floor area Design number of patrons and staff	
Halls, Theatres, Libraries, Gymnasiums and other Places of Assembly. Recreational and Community Activities with no buildings.	1 space per ten persons the facility is designed to accommodate.	All places of assembly (except Libraries and Museums)	1 per 25sqm GFA 1 loading / service space	1 for every 15 sqm GFA or 1 for every 5 persons the facility is designed to accommodate, whichever is the greater	1 for every 25sq m GFA.		1 car space per 35 sq m GFA		0.4 / seat	Gymnasiums 4.5/100m² Stadiums 0.2/ spectator	Gross floor area Maximum occupancy	Suggest move recreational facilities to own category. Suggest increased requirement for halls, theatres etc of 1 space per 5 persons the facility is designed to accommodate.
		Marae	1 per 25sqm GFA 1 loading / service space									

Activity	MPDC requirement	Sub-categories (where other TLAs have split the category into two or more activities)	Hamilton (proposed)	Waipa DC	Hauraki	Thames-Coromandel	Waikato	RTA Guide	Transfund RR209	RR 453 (average parking demand)	Assessment options	Comments / proposed change to MPDC Standard
		Libraries and Museums	1 per 30sqm GFA 1 loading / service space									
		Community Centre	1 per 30 sqm GFA. 1 loading / service space								GFA	
		Playing Fields, Outdoor Courts	6 per field or court	The space requirements will be determined by Council, taking into account such matters as: • the scale of the park • the proposed use and its intensity • the location of the park to the road network and other • land uses • the opportunity for 'shared' parking with adjacent developments.	6 for every field or court.		15 car spaces per hectare		Varies between specific sites		No. fields / courts Site area	
		Buildings serving recreation reserves and indoor recreation buildings	1 per 20sqm GFA. 1 loading / service space					Gymnasiums: 3/100 sq m GFA	Gymnasiums: 4.5/100 sq m GFA			
Pre-schools, Kindergartens, Childcare Centres, Primary and Intermediate Schools, Educational Institutions with less than 50 pupils	2 spaces for every 3 permanent fulltime staff member plus 2 spaces for visitors. 1 loading space for buses and vans.	Childcare Centres	1 per 30 sqm GFA. 1 drop-off car space per 10 children	1 per 20 sqm GFA	2 for every 3 fulltime staff equivalents		1 car space per every full time staff equivalent plus 1 car space per 40sq m GFA (GFA).	1 for every 4 children in attendance	0.3 / child	Preschools 0.2/ child	Staff Gross floor area	Suggest that educational activities are split into: Childcare facilities / kindergartens Schools Other facilities for education and training And that parking requirements are based on the number of children / students. For example: Childcare centres - 1 for every 4 children plus 2 for every 3 full-time staff equivalents. Schools - 1 per staff member (FTE) plus 1 space/10 students accommodated in Years 11 to 13 plus 1 drop off space per 20 students. Plus 1 bus space per 200 students.
		Schools - primary	2 per 3 full-time equivalent staff. 1 drop-off car space per 10 children	2 for every 3 staff	2 for every 3 fulltime staff equivalents		Primary – 1 car space for every full-time staff equivalent plus 2 for every 50 students accommodated.		0.2 / child	0.2/ pupil	Staff Staff plus students	
		Schools – intermediate and secondary	1 per full-time equivalent staff, plus 1 per 20 students aged 16 or over. 4 drop-off car spaces and 1 bus space per 200 students	2 for every 3 staff plus 1 for every 50 students	2 for every 3 fulltime staff equivalents, plus 1 for every 50 students		Secondary – 1 car space for every full-time staff equivalent plus 1 per 10 students accommodated in Years 11 to 13.				Staff plus students	

Activity	MPDC requirement	Sub-categories (where other TLAs have split the category into two or more activities)	Hamilton (proposed)	Waipa DC	Hauraki	Thames-Coromandel	Waikato	RTA Guide	Transfund RR209	RR 453 (average parking demand)	Assessment options	Comments / proposed change to MPDC Standard
		Facilities for Education and Training	1 per full-time equivalent staff, plus 1 per 20 students aged 16 or over which can be accommodated on site at any one time. 4 drop-off car spaces and 1 bus space per 200 students								Staff plus students	Other facilities for education and training - 1 per full-time equivalent staff, plus 1 per 20 students aged 16 or over which can be accommodated on site at any one time, plus 4 drop-off car spaces and 1 bus space per 200 students New schools appear unlikely, and will be designated so there is a low risk, however there is opportunity to avoid increasing problems with intensification.
		Tertiary Education Facilities	1 per 50 sqm GFA. 1 loading / service space									
Secondary Schools, and Educational Institutions with 50 or more pupils.	2 spaces for every 3 permanent fulltime staff member plus 2 spaces for visitors plus provision for pupil's vehicles assessed by a discretionary use application. 1 loading space per 50 pupils for buses and vans.	Schools – intermediate and secondary	1 per full-time equivalent staff, plus 1 per 20 students aged 16 or over. 4 drop-off car spaces and 1 bus space per 200 students	2 for every 3 staff plus 1 for every 50 students	2 for every 3 fulltime staff equivalents, plus 1 for every 50 students		Secondary – 1 car space for every full-time staff equivalent plus 1 per 10 students accommodated in Years 11 to 13.					
		Facilities for Education and Training	1 per full-time equivalent staff, plus 1 per 20 students aged 16 or over which can be accommodated on site at any one time. 4 drop-off car spaces and 1 bus space per 200 students									
		Tertiary Education Facilities	1 per 50 sqm GFA. 1 loading / service space									
Business activities including retail shops (including drive-in retail facilities and banks)	1 space for 40sqm of GFA.	Retail / shops	Ranges from 1 per 20 sqm GFA to 1 per 100 sqm GFA depending on size of retail development.	1 per 25sqm GFA. Waipa DC currently labels this activity as 'shops'.	1 for every 30m² GFA or site area, whichever is applicable.	one space per 40sq m GFA or part thereof	1 car space per 45 sq m GFA including indoor and outdoor retail area.	6.1 spaces per 100sq m GFA		Drive in / fast food outlets 8/100m² GFA Shopping centres range from 2.7-3.6 per 100 sqm GFA depending on size Large format retail 1.6 / 100 sqm GFA	Gross floor area Site area	Consider refining activity definition and separate supermarkets, retail operations by size etc. This would be more consistent with other TLAs and would ensure requirements suit different business activates. Separate drive-through facilities.
		Supermarkets	1 per 20sqm GFA 1 loading / service space	1 per 16 sqm GFA	1 per 20m² GFA.	1 space per 40sq m GFA or part thereof.	1 car space per 25sq m GFA		7.6 / 100sq m GFA	4.2/100m² GFA	Gross floor area	

Activity	MPDC requirement	Sub-categories (where other TLAs have split the category into two or more activities)	Hamilton (proposed)	Waipa DC	Hauraki	Thames-Coromandel	Waikato	RTA Guide	Transfund RR209	RR 453 (average parking demand)	Assessment options	Comments / proposed change to MPDC Standard
		Produce Stalls	1 per 16sqm retail space 1 loading / service space							Roadside stalls 7.7/100m² GFA		
		Outdoor retailing	1 per 100sqm GFA of uncovered display area 1 loading / service space	1 per 100 sqm GFA								
		Nurseries and Garden Centres			1 per 500m² site area, with a minimum of 4 spaces		1 car space per 100sq m site area.	0.5 spaces per 100 sq m site area Minimum 15 spaces			Site area	
Administrative, Commercial and Professional Offices not in a residential building	1 space for 40sqm of GFA.	Offices (excluding offices in the Commercial Service Zone surrounding the City Centre Zone – see Table 5.2-1d)	1 per 40sqm GFA 1 loading / service space	1 per 35 sqm GFA	None		1 car space per 35sq m GFA	1 space per 40 sq m GFA	2.8 / 100 sq m GFA	2.7 / 100 sqm GFA	Gross floor area	Consider refining activity definition. Offices in a residential building would come under 'Home Occupation'? Change description to "Administrative, Commercial and Professional Offices excluding Home Occupations".
Motor Vehicle and Agricultural Implement sales yards	1 space per 150sqm of display area		1 per 50sqm GFA 1 loading / service space	1 per 100 sqm GFA (Waipa DC classes this activity as 'vehicle showrooms')	1 per every 200m² site area.		1 car space per 200sq m site area	0.75 spaces per 100 sq m site area plus 6 spaces per work bay			Site area	No problem, no change.
Medical Centres, Hospitals, Hospices	4 spaces per professional person plus 1 space per 2 staff.	Health Care Services	3 per consultant and 1 per staff 1 loading / service space	Premises for doctors, dentists, veterinary surgeons- 1 per 25 sqm GFA.	1 for every 25sq m GFA.		2.5 car spaces per professional consultant plus 1 car space per full-time equivalent staff person.	3 spaces per surgery 4 per 100 sq m GFA	5.5+5.7 / 100 sq m GFA	4.0/100m² GFA 1.5/ prof staff	Gross floor area Staff	Consider splitting this category into Health care services (doctors, dentists, veterinary services) – 3 per consultant Hospitals / hospices = 1.5 per bed.
		Hospitals	1 per two beds 1 loading / service space per 50 beds						1.6/bed	1.5/ bed	Bed GFA	
		Managed Care Facilities and Rest Homes	1 per 3 bedrooms plus 1 per FTE staff member	None	Special Care Housing - 1 for every 4 occupants						Occupants Bedrooms	
Service Stations and premises for Assembly, Repair of Motor Vehicles	1 space for every service bay plus one on-site parking area for service tankers.	Drive-thru Services	1 per 30sqm GFA (excluding canopy area over pumps) plus 5 queuing spaces per dispensing facility	1 per 20 sqm GFA excluding canopies over petrol pumps	2 spaces per 3 staff, or part thereof, on the premises, 2 spaces for a convenience shop, 4 spaces per workshop bay, 3 queuing spaces for a car wash, 1 space for an air hose or vacuum facility.	1 per 35sq m of the convenience store plus 4 spaces for a lube/servicing repair bay plus 2 per 3 staff members plus 1 per air hose or vacuum cleaner plus 3 per carwash.	1 car space per 45sq m GFA excluding car washes and canopies over petrol pumps, plus 3 queuing per car wash, plus 4 per repair bay.	6 spaces per work bay Plus 5 spaces per 100 sq m GFA if convenience store provided. Car wash – 5 spaces		7.9/100m² GFA	Gross floor area Staff Workshop bays Car washes	Consider revising activity definition to allow for the retail function of service stations, car wash services etc. Suggest similar standard to TCDC. Separate premises for assembly / repair of motor vehicles.

Activity	MPDC requirement	Sub-categories (where other TLAs have split the category into two or more activities)	Hamilton (proposed)	Waipa DC	Hauraki	Thames-Coromandel	Waikato	RTA Guide	Transfund RR209	RR 453 (average parking demand)	Assessment options	Comments / proposed change to MPDC Standard
Warehouse and Storage Facilities (indoor or outdoor), Auction Rooms	1 space per 100sqm GFA so used.	Industrial activities (including warehouses)	1 per 60sqm GFA for the first 1,000sqm of an individual ownership or tenancy, 1 per 100sqm GFA Thereafter 1 loading / service space per development or per 3,000sqm GFA, whichever is the greater	1 per 50 sqm GFA or every 2 principals and employees, whichever is greater	Warehouse Activity: 1 for every 50m² GFA for the first 1000m² GFA of an individual ownership or tenancy. 1 for every 75m² GFA thereafter.	One on-site parking space per 100sq m GFA	1 space per 45 sq m GFA	1 for every 300 sq m GFA		0.9/100m² GFA	Gross floor area	Suggest change to 1 space for every 150sq m GFA. Consider dispensation for not forming some parking if low employee numbers if access and area is protected.
Commercial Services, Hire Centres, Dry Cleaning Depots, Repair Service, Tradesman's Workshops	1 space per 40sqm of GFA.											Consider removing this category, as activities could be covered under retail and commercial
Industrial Users	1 space per 50sqm of GFA.	Industrial activities (including warehouses)	1 per 60sqm GFA for the first 1,000sqm of an individual ownership or tenancy, 1 per 100sqm GFA Thereafter 1 loading / service space per development or per 3,000sqm GFA, whichever is the greater	1 per 50 sqm GFA or every 2 principals and employees, whichever is greater	Industrial Activity: 1 for every 50m² GFA for the first 1000m² GFA of an individual ownership or tenancy. 1 for every 75m² GFA thereafter.	One on-site parking space per 100sq m GFA	1 space per 100 sq m GFA	1 for every 100 sq m GFA		Manufacturing 1.1/100m² GFA	Gross floor area	Could consider reducing parking requirement to 1 space per 100 sqm GFA
Works and Network Utilities	All permanent employee parking and loading requirements to be on-site											Consider removing. Why a separate activity?
Categories used by other TLAs												
Transport Depots			*1 per 100sqm GFA of building or site area used for storage, whichever is the greater* *1 loading / service space*									
Fire Stations			*2 spaces per 3 staff members*				*Emergency Service Facilities:* *1 car space per on-duty staff person, plus sufficient space for all the emergency vehicles that use the site.*				*On-duty staff person plus all vehicles*	

Attachment B: Parking - General

The following table outlines recommended new or amended parking standards. Categories generally match the Activity Table in the District Plan (Table 2.2).

Activity	Sub-Category	Parking Spaces Required
General		
Community Related Activities		
Education	Childcare centres	1 for every 4 children plus 2 for every 3 full-time staff equivalents.
	Schools	1 per staff member (FTE) plus 1 space/10 students accommodated in Years 11 to 13 plus 1 drop off space per 20 students plus 1 bus space per 200 students.
	Other facilities for education and training	1 per full-time equivalent staff, plus 1 per 20 students aged 16 or over which can be accommodated on site at any one time, plus 4 drop-off car spaces and 1 bus space per 200 students
Places of Assembly	Restaurants / licensed premises	1 space per 10sqm.
	Places of assembly including theatres, halls, community centres, churches, funeral directors	1 space per 5 persons the facility is designed to accommodate.
	Recreational facilities	
	Buildings serving recreation reserves and indoor recreation buildings including gymnasiums	1 per 25 sqm GFA, 1 loading / service space
	Playing Fields, Outdoor Courts	The space requirements will be determined by Council, taking into account such matters as scale, proposed use and intensity, location, opportunity for shared parking.
Fire Stations	Emergency Service Facilities	1 car space per on-duty staff person, plus sufficient space for all the emergency vehicles that use the site.
Dwellings and Dwelling-Based Activities		
Dwellings	Dwellings	2 spaces per dwelling Note : One may be "stacked" where it does not interfere with shared access.
Home Occupations	Home Occupations	4 spaces (involving retailing) 1 space per 2 persons employed (no retailing)
Accommodation Facilities	Visitor accommodation including motels	1 space per unit/room place plus 1 per two staff members.
	Camping grounds / caravan parks	1 per unit, campsite or caravan.

Activity	Sub-Category	Parking Spaces Required
	Hostels and travellers accommodation, boarding houses	1 space for every three persons designed to be accommodated plus 1 space per 2 staff members.
	Nursing and convalescent homes	1 space per 10 beds (visitors) plus 1 space per 2 employees plus 1 space per ambulance.
Scheduled Sites Only		
Industrial Based Activities		
Depots	Industrial Users	Reduce parking requirement to 1 space per 100 sqm GFA
Light industry		
Industry		
Storage and warehousing	Warehouse and Storage Facilities (indoor or outdoor).	1 space for every 150sq m GFA. Allow dispensation for not forming some parking if low employee numbers if access and area is protected for future development if required.
	Auction Rooms	
Marae, Whare nui and Housing Development		
Iwi housing and marae subject to an Iwi Housing and Marae Development Plan		In accordance with Development Plan. Refer relevant activities for guidance.
Reserve and Kaitiaki (Conservation) Zones		
Retailing and Office Based Activities		
Medical	Health care services (doctors, dentists)	3 per consultant
	Hospitals / hospices	1.5 per bed
Offices	Administrative, Commercial and Professional Offices excluding Home Occupations	1 space for 40sqm of GFA.
Retailing	Supermarkets	1 per 20 sqm GFA
	Banks	1 per 40 sqm GFA
	Retail / shops under 5,000 sqm. GFA	1 per 40 sqm GFA
	Retail / shops over 5,000 sqm GFA	1 per 30 sq m
	Nurseries / plant centres	1 per 100 sqm site area
	Motor Vehicle and Agricultural Implement sales yards	1 space per 150sqm of display area
	Other outdoor retailing	1 per 100 sqm GFA

Activity	Sub-Category	Parking Spaces Required
Service Stations	Service Stations	1 per 35sq m of the convenience store plus 4 spaces for a lube/servicing repair bay plus 2 per 3 staff members plus 1 per air hose or vacuum cleaner plus 3 per carwash.
	Premises for assembly / repair of motor vehicles	4 spaces for a lube/servicing repair bay plus 2 per 3 staff members.
Veterinary Clinics	Veterinary services	3 per consultant
Rural Based Activities		
Commercial stockyards, saleyards and holding paddocks	See 'depot'	See 'depot'
Establishment for the boarding or breeding of domestic pets		Consider need.

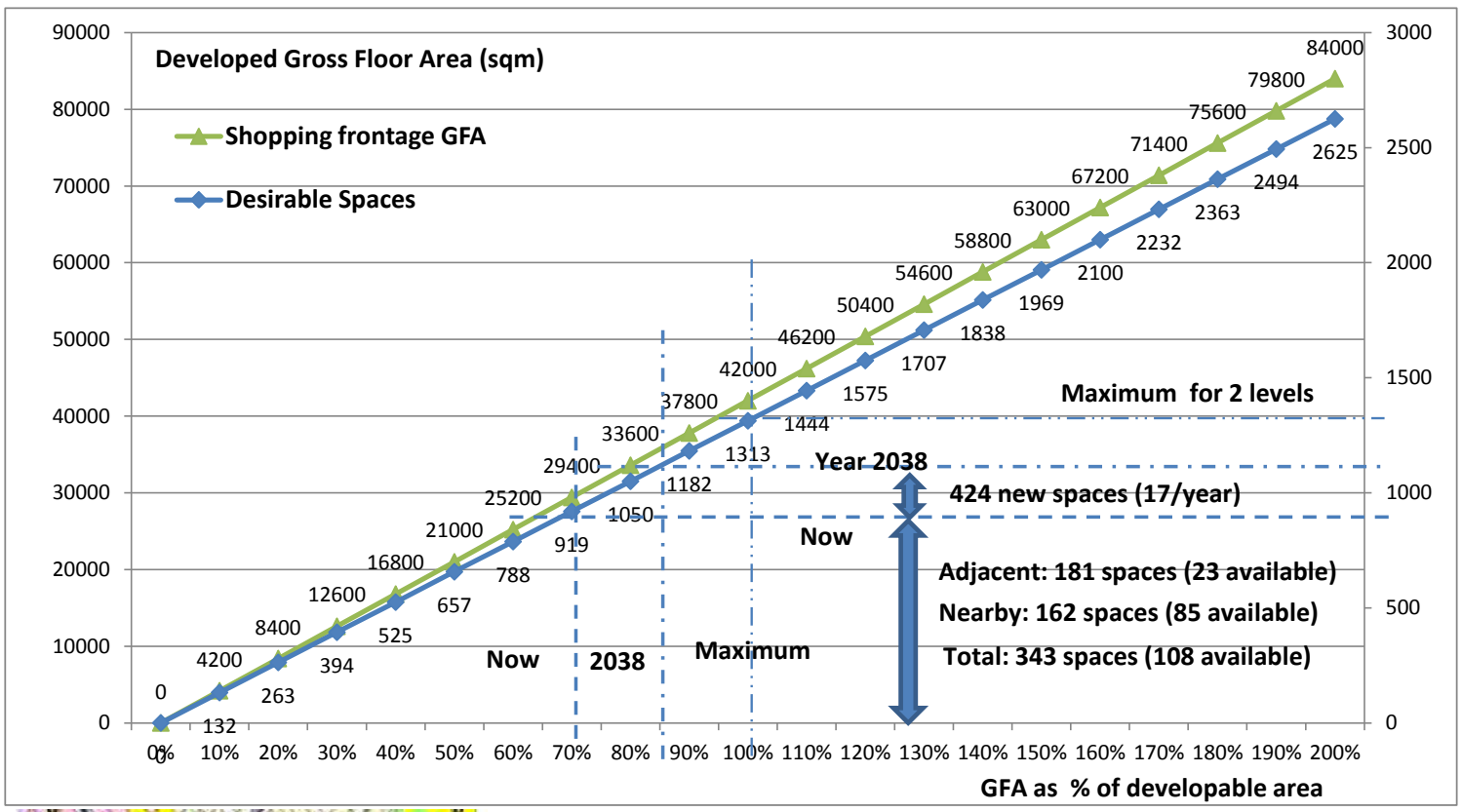
Attachment C: Analysis of Town Centre Parking

Areas		
Area for consideration (ha)	6	ha (gross)
Area required for road, services, etc. (%)	30%	of gross
Net developable area (sqm)	42000	sqm

Building Type		
single storey	40%	Coverage
two storey	10%	60%
three storey	0%	

Parking demand		
Land use	%age	GFA/space
Commercia	40%	40
Retail	50%	30
Bar/Restau	10%	10
Total	100%	TRUE
Weighted Average parking		**32**
Typical area per car park		25

Comment	Coverage (GFA/net developable)	Shopping frontage GFA	Desirable Spaces	single level developmen t	Car park area	Complying coverage ratio	Levels
	0%	0	0	23600	0	0%	Ground level
	10%	4200	132	23600	3300	18%	Ground level
	20%	8400	263	23600	6575	36%	Ground level
	30%	12600	394	23600	9850	53%	Ground level
	40%	16800	525	23600	13125	71%	Ground level
	50%	21000	657	23600	16425	89%	Ground level
	60%	25200	788	23600	19700	107%	Two levels
Approx Current = 1685 spaces	70%	29400	919	23600	22975	125%	Two levels
25 years = 52500sqm = 85% = 2109 spaces = 328 new spaces	80%	33600	1050	23600	26250	143%	Two levels
	90%	37800	1182	23600	29550	160%	Two levels
Two level max = 2188 spaces = 503 extra needed	100%	42000	1313	23600	32825	178%	Two levels
	110%	46200	1444	23600	36100	196%	Three levels
	120%	50400	1575	23600	39375	214%	Three levels
	130%	54600	1707	23600	42675	232%	Three levels
	140%	58800	1838	23600	45950	249%	Three levels
	150%	63000	1969	23600	49225	267%	Three levels
	160%	67200	2100	23600	52500	285%	Three levels
	170%	71400	2232	23600	55800	303%	Needs Basement
	180%	75600	2363	23600	59075	321%	Needs Basement
	190%	79800	2494	23600	62350	338%	Needs Basement
	200%	84000	2625	23600	65625	356%	Needs Basement



Business zone shown pink

Aerial (sample) By inspection 50% coverage by site area
Streetview inspection 20% 2 storey
Forecast growth = 1% per annum (less if employee age factored in)
So current say 25200sqm = 31500 sqm in 25 years = 75%

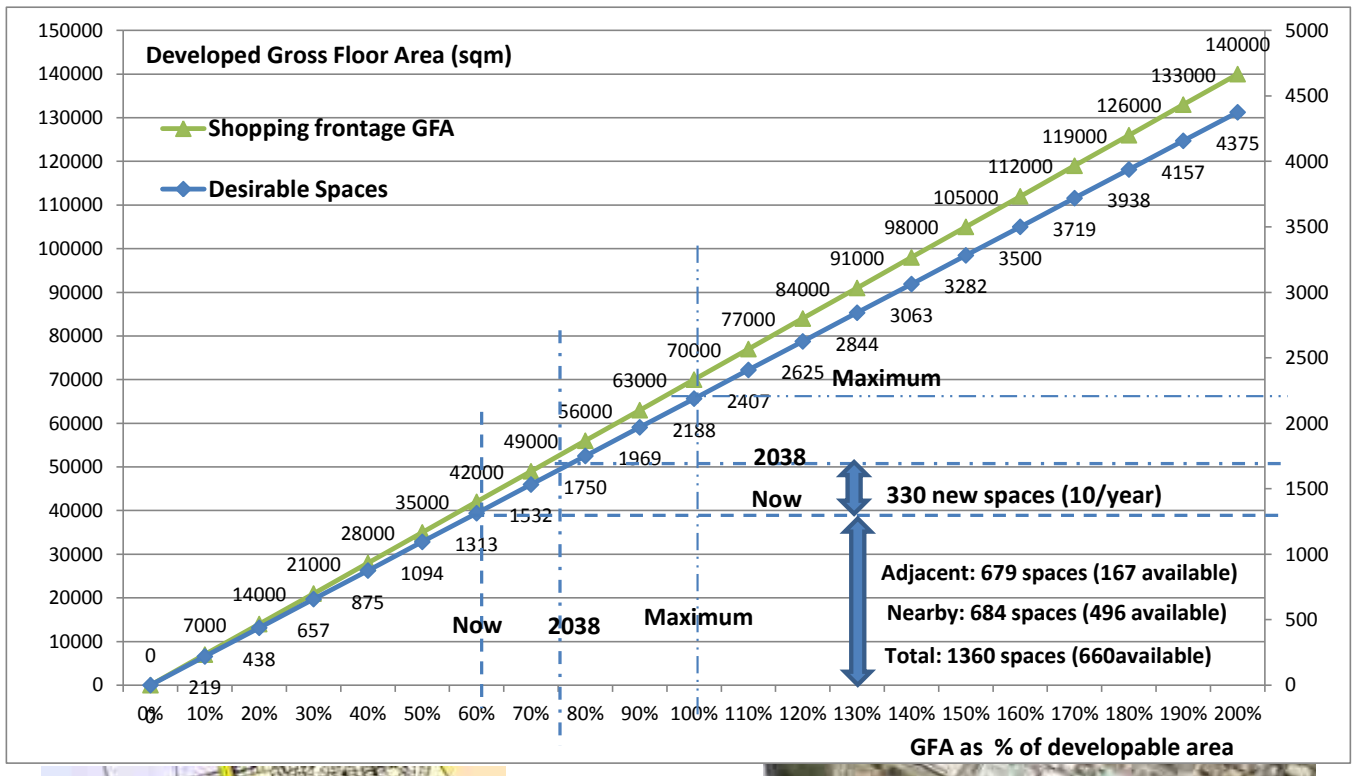
	Adjacent to Shopping Frontage	Nearby Streets	Total
Total available	23	85	108
Total Car Parks	181	162	343
% utilised	87%	48%	69%
10 Years' growth at 1%	15.8	9	23.5

Areas		
Area for consideration (ha)	10	ha (gross)
Area required for road, services, etc. (%)	30%	of gross
Net developable area (sqm)	70000	sqm

Building Type		
single storey	55%	Coverage
two storey	5%	65%
three storey	0%	

Parking demand		
Land use	%age	GFA/space
Commercia	40%	40
Retail	50%	30
Bar/Restau	10%	10
Total	100%	TRUE
Weighted Average parking		**32**
Typical area per car park		25

Comment	Coverage (GFA/net developable)	Shopping frontage GFA	Desirable Spaces	for single level developm	Car park area	Complying coverage ratio	Levels
	0%	0	0	39300	0	0%	Ground level
	10%	7000	219	39300	5475	18%	Ground level
	20%	14000	438	39300	10950	36%	Ground level
	30%	21000	657	39300	16425	53%	Ground level
	40%	28000	875	39300	21875	71%	Ground level
	50%	35000	1094	39300	27350	89%	Ground level
Approx Current = 1313 spaces	60%	42000	1313	39300	32825	107%	Two levels
	70%	49000	1532	39300	38300	125%	Two levels
25 years = 52500sqm = 75% = 1640 spaces = 328 new spaces	80%	56000	1750	39300	43750	143%	Two levels
	90%	63000	1969	39300	49225	160%	Two levels
Two level max = 2188 spaces = 875 extra needed	100%	70000	2188	39300	54700	178%	Two levels
	110%	77000	2407	39300	60175	196%	Three levels
	120%	84000	2625	39300	65625	214%	Three levels
	130%	91000	2844	39300	71100	232%	Three levels
	140%	98000	3063	39300	76575	249%	Three levels
	150%	105000	3282	39300	82050	267%	Three levels
	160%	112000	3500	39300	87500	285%	Three levels
	170%	119000	3719	39300	92975	303%	Needs Basement
	180%	126000	3938	39300	98450	321%	Needs Basement
	190%	133000	4157	39300	103925	338%	Needs Basement
	200%	140000	4375	39300	109375	356%	Needs Basement



Business zone shown pink

Aerial (sample) By inspection 60% coverage by site area
Streetview inspection <10% 2 storey
Forecast growth = 1% per annum (less if employee age factored in)
So current say 42000sqm = 50,250sqm in 25 years = 75%

10ha shopping frontage

45ha business zone

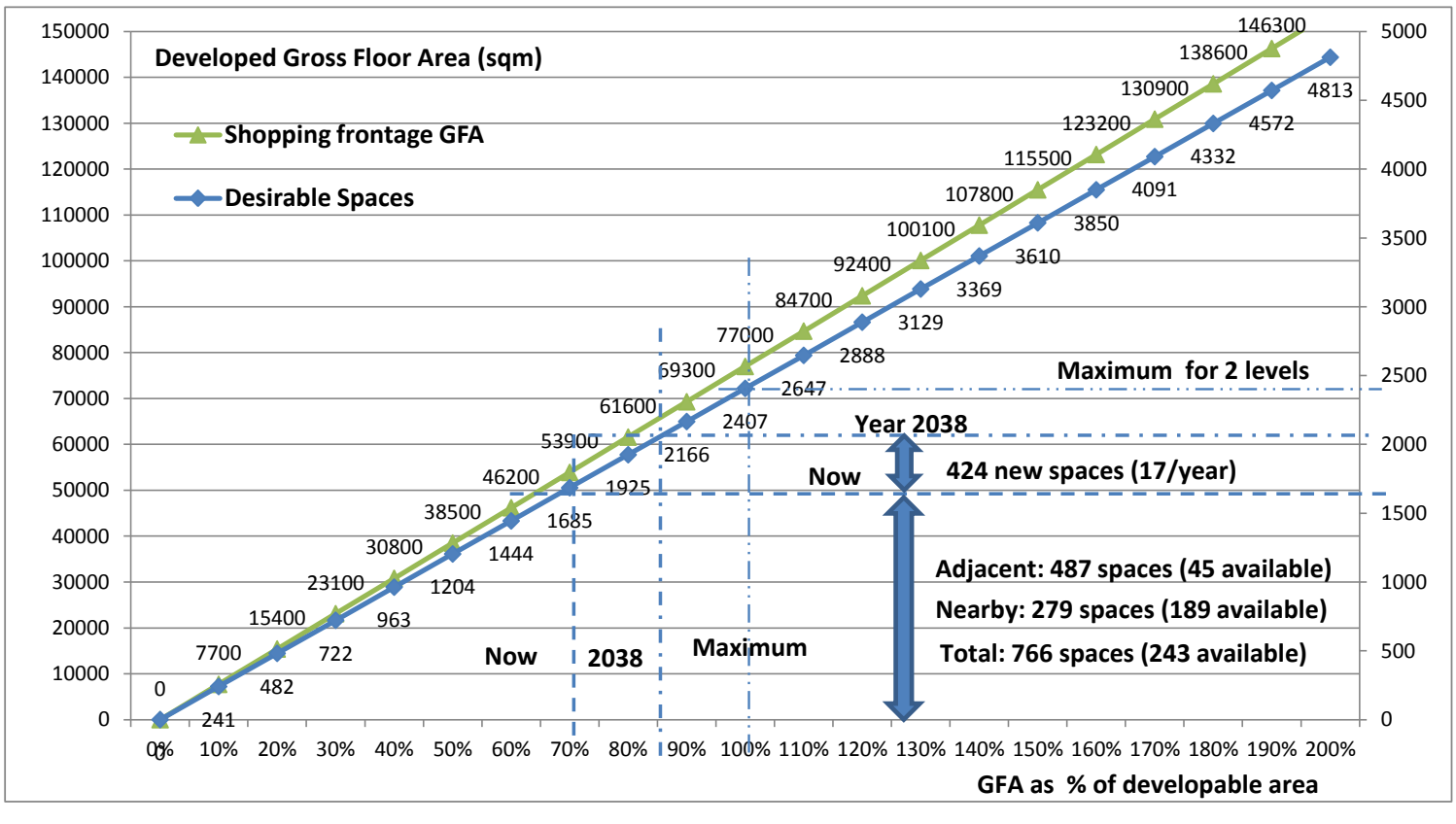
Survey Data	Adjacent to Shopping Frontage	Nearby Streets	Total
Total available	167	496	663
Total Car Parks	679	684	1363
% utilised	75%	27%	51%

Areas		
Area for consideration (ha)	11	ha (gross)
Area required for road, services, etc. (%)	30%	of gross
Net developable area (sqm)	77000	sqm

Building Type		
single storey	45%	Coverage
two storey	10%	65%
three storey	0%	

Parking demand		
Land use	%age	GFA/space
Commercia	40%	40
Retail	50%	30
Bar/Restau	10%	10
Total	100%	TRUE
Weighted Average parking		**32**
Typical area per car park		25

Comment	Coverage (GFA/net developable)	Shopping frontage GFA	Desirable Spaces	single level developmen t	Car park area	Complying coverage ratio	Levels
	0%	0	0	43200	0	0%	Ground level
	10%	7700	241	43200	6025	18%	Ground level
	20%	15400	482	43200	12050	36%	Ground level
	30%	23100	722	43200	18050	53%	Ground level
	40%	30800	963	43200	24075	71%	Ground level
	50%	38500	1204	43200	30100	89%	Ground level
	60%	46200	1444	43200	36100	107%	Two levels
Approx Current = 1685 spaces	70%	53900	1685	43200	42125	125%	Two levels
25 years = 52500sqm = 85% = 2109 spaces = 328 new spaces	80%	61600	1925	43200	48125	143%	Two levels
	90%	69300	2166	43200	54150	160%	Two levels
Two level max = 2188 spaces = 503 extra needed	100%	77000	2407	43200	60175	178%	Two levels
	110%	84700	2647	43200	66175	196%	Three levels
	120%	92400	2888	43200	72200	214%	Three levels
	130%	100100	3129	43200	78225	232%	Three levels
	140%	107800	3369	43200	84225	249%	Three levels
	150%	115500	3610	43200	90250	267%	Three levels
	160%	123200	3850	43200	96250	285%	Three levels
	170%	130900	4091	43200	102275	303%	Needs Basement
	180%	138600	4332	43200	108300	321%	Needs Basement
	190%	146300	4572	43200	114300	338%	Needs Basement
	200%	154000	4813	43200	120325	356%	Needs Basement



Business zone shown pink

Aerial (sample) By inspection 60% coverage by site area
Streetview inspection 15% 2 storey
Forecast growth = 1% per annum (less if employee age factored in)
So current say 54000sqm = 67,500 sqm in 25 years = 85%

	Adjacent to Shopping Frontage	Nearby Streets	Total
Total available	54	189	243
Total Car Parks	487	279	766
% utilised	89%	32%	68%
10 Years' growth at 1%	44	9	53

11ha shopping frontage

From MPDC Sensis Parking Survey for Central Matamata 2012

Surveyed number of spaces	% taken up at max	Available at Max utilisation
8	100%	0
7	70%	2
13	85%	2
34	90%	3
11	100%	0
14	100%	0
8	100%	0
7	45%	4
23	75%	6
27	100%	0
18	90%	2
32	100%	0
20	50%	10
40	75%	10
46	90%	5
10	30%	7
24	30%	17
41	60%	16
18	55%	8
5	100%	0
19	65%	7
34	65%	12
50	50%	25
36	90%	4
10	50%	5
21	65%	7
35	75%	9
44	90%	4
24	90%	2
679		**167**

Surveyed number of spaces	% taken up at max	Available at Max utilisation
40	5%	38
34	25%	26
56	5%	53
30	10%	27
50	65%	18
62	50%	31
13	25%	10
18	5%	17
25	30%	18
17	65%	6
71	25%	53
35	50%	18
23	10%	21
20	30%	14
30	25%	23
35	10%	32
26	5%	25
16	10%	14
14	30%	10
15	5%	14
14	65%	5
28	30%	20
12	75%	3
		0
		0
		0
		0
		0
		0
684		**496**

From MPDC Sensis Parking Survey for Central Te Aroha 2012

Surveyed number of spaces	% taken up at max	Available at Max utilisation
16	50%	8
5	100%	0
21	95%	1
11	95%	1
4	100%	0
29	100%	0
33	80%	7
7	100%	0
8	100%	0
27	100%	0
10	80%	2
10	65%	4
181		**23**

Surveyed number of spaces	% taken up at max	Available at Max utilisation
46	45%	25
11	100%	0
26	80%	5
4	50%	2
13	30%	9
23	5%	22
31	30%	22
8	100%	0
162		**85**

From MPDC Sensis Parking Survey for Central Morrinsville 2012

Surveyed number of spaces	% taken up at max	Available at Max utilisation
22	60%	9
9	90%	1
17	95%	1
11	95%	1
7	100%	0
18	95%	1
21	95%	1
19	100%	0
16	95%	1
14	95%	1
16	75%	4
16	50%	8
27	100%	0
29	75%	7
18	65%	6
152	100%	0
8	100%	0
20	100%	0
9	75%	2
26	75%	7
12	65%	4
487	**45**	**54**

Surveyed number of spaces	% taken up at max	Available at Max utilisation
6	30%	4
9	30%	6
8	50%	4
4	50%	2
9	30%	6
12	5%	11
19	5%	18
5	0%	5
17	5%	16
24	0%	24
20	45%	11
13	30%	9
8	25%	6
16	30%	11
49	25%	37
19	65%	7
12	65%	4
7	90%	1
7	100%	0
9	50%	5
6	60%	2
279		**189**

	Adjacent to Shopping Frontage	Nearby Streets	Total
Te Aroha			
Total available	23	85	**108**
Total Car Parks	181	162	**343**
% utilised	87%	48%	**69%**
Matamata			
Total available	167	496	**663**
Total Car Parks	679	684	**1363**
% utilised	75%	27%	**51%**
Morrinsville			
Total available	54	189	**243**
Total Car Parks	487	279	**766**
% utilised	89%	32%	**68%**