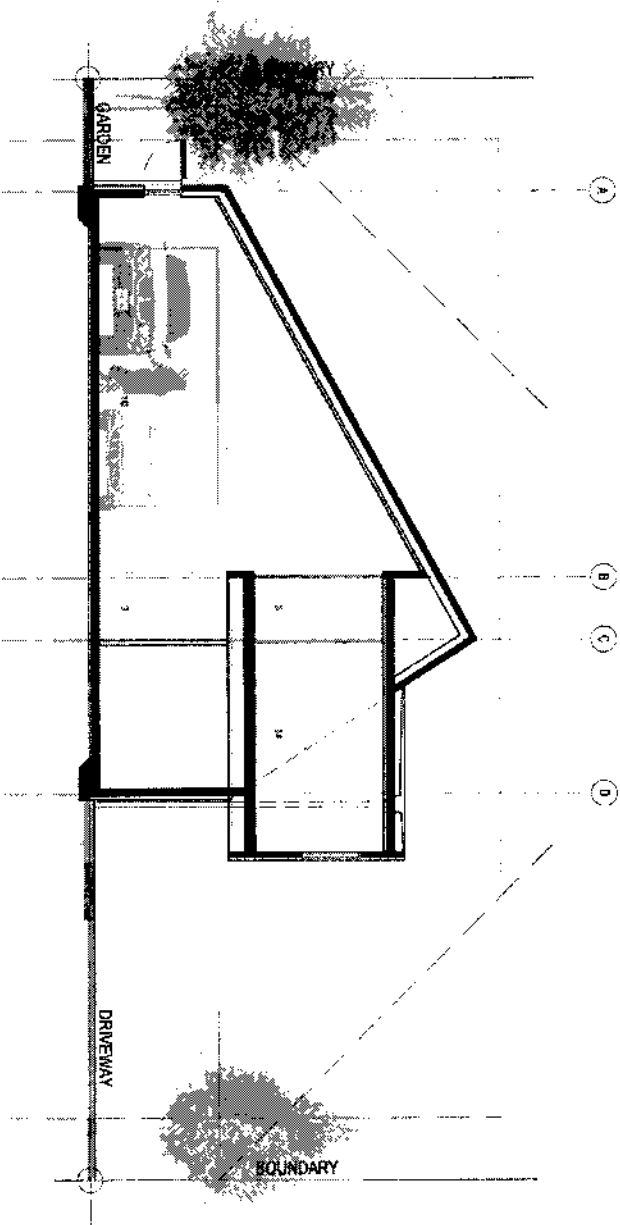


SECTION B-B

LEGEND

- 1. CURB
- 2. VOID
- 3. WALL/SLAB
- 4. OTHER
- 5. FLOOR / SHEDDING
- 6. INSULATION / CEILING
- 7. ROOFING
- 8. LANDSCAPE
- 9. STAIR
- 10. OUTLET
- 11. WALL/DOOR FRAME
- 12. RECEPTION/STAIR
- 13. FLOOR/CEILING
- 14. SIGNATURE
- 15. OUTLET/DOOR / REVISION/ROOM
- 16. CHIMNEY/ROOFING/ROOM
- 17. CEILING/ROOFING
- 18. LANDSCAPE
- 19. SKYLINE
- 20. TERRACE/ROOFING
- 21. LIFT
- 22. STAIR

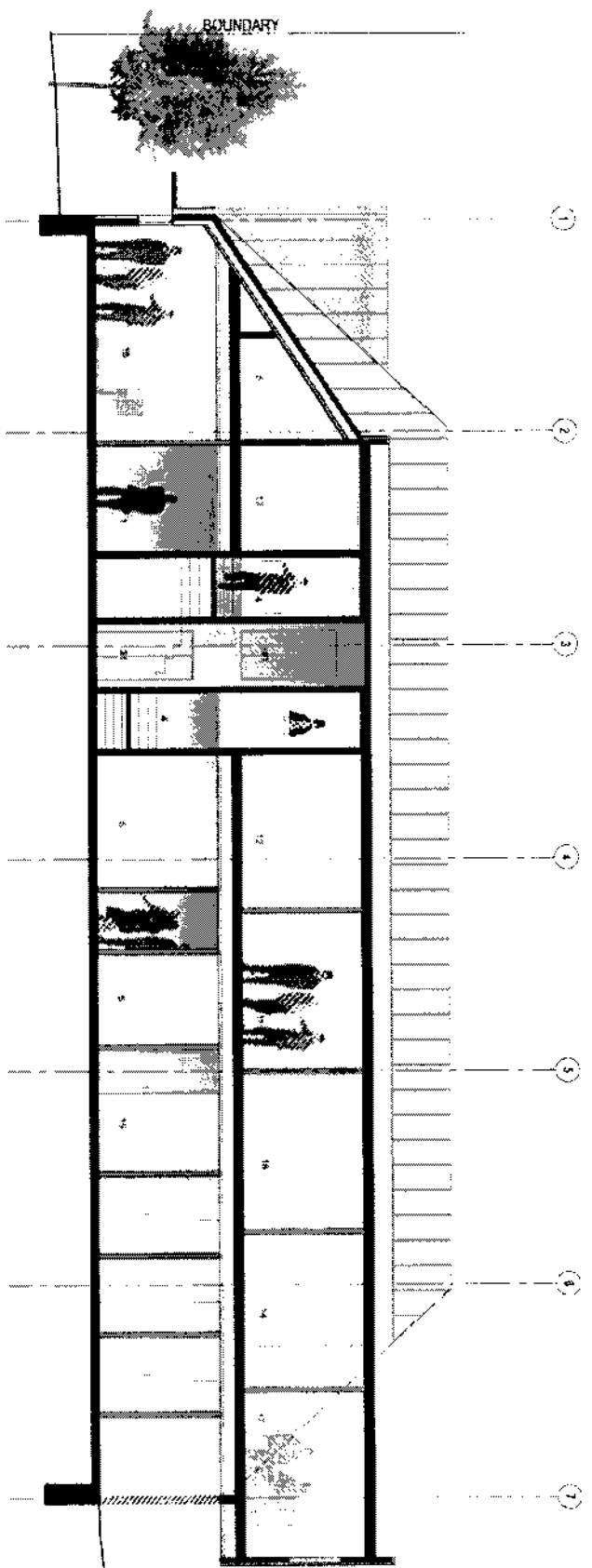
ASI



SECTION C-C
TYPICAL VIEW

Asa

- LEGEND
- 1 DRAIN
 - 2 WINDOW
 - 3 WALL/SLAB
 - 4 ROOF
 - 5 WINDOW/SLAB/ROOF
 - 6 ACCESSIBLE TOILET
 - 7 MIDDLE
 - 8 LAND AREA
 - 9 STORE
 - 10 GARAGE
 - 11 PARKING SPACES
 - 12 RECEPTION OFFICE
 - 13 STAIRCASE
 - 14 BAL. LIFT
 - 15 OPERATIONAL TRANSPORTATION
 - 16 CARPARK/STAIRS/ROOF
 - 17 WESTERLY ROOM
 - 18 EASTERN ROOM
 - 19 STAIRWAY
 - 20 TYPICAL ACCESS
 - 21 LIFT
 - 22 STORE



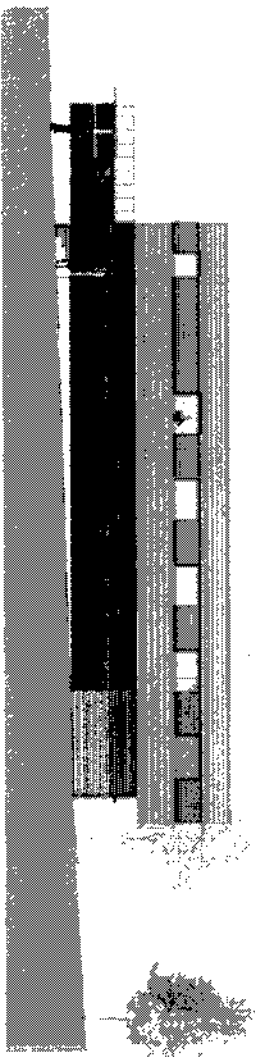
D SECTION D-D

- LEGEND
- 1. ENTRY
 - 2. OFFICE
 - 3. RECEPTION
 - 4. STAIRS
 - 5. SHELTER/BREAKDOWN
 - 6. MEETING/STAFF
 - 7. OFFICES
 - 8. LUNCH AREA
 - 9. PARKING
 - 10. ENTRANCE
 - 11. MANAGER'S OFFICE
 - 12. INTERNAL DRIVE
 - 13. PARKING
 - 14. END OFFICE
 - 15. OPERATIONAL TRAINING ROOM
 - 16. OPERATIONAL OFFICE
 - 17. STORAGE ROOM
 - 18. OUTLOOK ROOM
 - 19. STORAGE
 - 20. OPERATIONAL OFFICES
 - 21. LEFT
 - 22. RIGHT

A53



1 NORTH ELEVATION



2 WEST ELEVATION

CLIENT: CIVIL DEFENCE HEADQUARTERS
PROJECT NO: 0519
DATE: 31/03/2006
DRAWING NO: PD3-01
ISSUE: B

A54

CIVIL DEFENCE HEADQUARTERS - PRELIMINARY DESIGN - 7 ELCOAT AVENUE

31/03/2006

Prepared for WAITAKERE CITY COUNCIL

Drawing NORTH AND WEST ELEVATIONS

Scale 1:200



Job no 0519

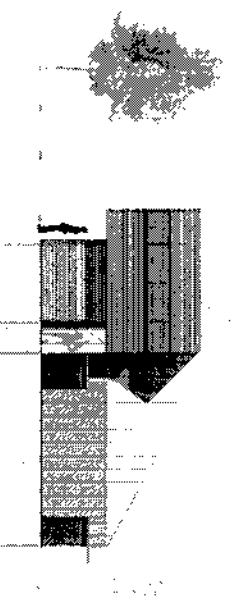
Drawing no PD3-01 Issue B



2 EAST ELEVATION

GLASS FRONT
CENTRAL PORTAL
MATERIAL FINISHING
SHADOWING THE
MATERIAL FINISHING
MATERIAL FINISHING
MATERIAL FINISHING
MATERIAL FINISHING
MATERIAL FINISHING

ASS



3 SOUTH ELEVATION

CIVIL DEFENCE HEADQUARTERS - PRELIMINARY DESIGN - 7 ELCOAT AVENUE

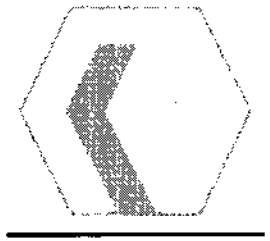
31/03/2016 Prepared for WAITAKERE CITY COUNCIL

Drawing NORTH AND WEST ELEVATIONS

Scale 1:200



Job no 0519 Drawing no P03-02 Issue B



PRELIMINARY DESIGN REPORT

AS6

WAITAKERE CITY COUNCIL - NEW CIVIL DEFENCE HEADQUARTERS
Environmental Design, Mechanical, Hydraulic, Fire and Electrical Design.

March 2006

e Cubed Building Workshop Ltd

Auckland Office: PO Box 302 326 North Harbour. T: (09) 915 0734. F: (09) 915 0736. E: enquiries@e3bw.co.nz
Wellington Office: PO Box 9585 Manton Square. T: (04) 384 6588. F: (04) 915 5755. E: enquiries@e3bw.co.nz

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4.0	HYDRAULIC - BASIS OF DESIGN AND OUTLINE SCOPE OF WORKS
5.0	FIRE SERVICES - BASIS OF DESIGN AND OUTLINE SCOPE OF WORKS
6.0	ELECTRICAL SERVICES - BASIS OF DESIGN AND OUTLINE SCOPE OF WORKS
7.0	PRELIMINARY DESIGN DRAWINGS (PART 1 - INTRODUCTION)

1.0 INTRODUCTION

This report describes the Environmental Design, Mechanical, Hydraulic, Fire & Electrical Services for the proposed Waitakere Civil Defence Headquarters Building in Te Atatu.

The proposed environmental design and engineering services will be designed to be sustainable, flexible and complimentary to the architectural design proposals.

In view of the unusual nature of the project a risk management matrix is included in Appendix A.

2.0 ENVIRONMENTAL DESIGN

2.1 Built Form

The building shape and form has been designed to minimize the enclosed volume and materials use.

2.2 Orientation

The E-W orientation has been fixed by the confines of the site and the size of the building.

2.3 Thermal Insulation

Walls and roofs will be well insulated to R2.0 and R3.5 respectively.

2.4 Glazed Area

Further studies will be undertaken to optimize the glazed areas particularly with regard to daylighting and solar heat gain.

2.5 Shading

The use of sliding shutters will be considered to assist with solar gain on to the predominantly east and west facing facades and to provide additional protection in the event of a cyclonic event.

2.6 Mixed Mode Ventilation

All windows will be operable to add to the flexibility of operation of the building in an emergency and under normal conditions. Windows will be provided with micro-switches interlocked with the air conditioning indoor units. A back-up minimum outdoor air mechanical ventilation system will be included to allow for controlled ventilation during the heating and cooling cycle and during events such as a cyclone or a volcanic eruption.

2.7 Materials

The structure and fabric of the building will be of a semi-domestic nature. Wherever possible materials will be locally sourced and chosen with regard to environmental impact. Considerations will include, embodied energy, cleaner methods of production, building health, energy efficiency and water conservation.

3.0 MECHANICAL – BASIS OF DESIGN AND OUTLINE SCOPE OF WORKS

3.1 Basis of Design

External Design Temperatures

The air conditioning system design will be based on an external temperature of 6°C saturated condition in Winter and a 27°C DB/23°C condition in Summer. These conditions correspond to statistical design criteria, which will generally be warmer for 99% of the time in Winter and cooler for 99% of the time in Summer.

Internal Design Temperatures

The internal conditions in air conditioned areas will be maintained at 22°C +/- 2°C

Ventilation

Minimum outside air ventilation rates will be in accordance with AS1688.2.

Toilet ventilation will be based on an extraction rate of at least 25 l/s² per sanitary fixture.

3.2 Outline Scope of Works

A multi split VRV system will be provided in all principal areas. Minimum outdoor air supply will be via a ducted and filtered air supply system.

The VRV system will use ceiling recessed indoor heating and cooling units linked by common liquid and gas line refrigerant mains to a variable capacity ducted outdoor unit located in the ground level plant area. The reverse cycle outdoor units can either provide cooling and/or heating. The system comes with a comprehensive building control system and can be interfaced with a WCC energy management system WAM if required.

4.0 HYDRAULIC SERVICES – BASIS OF DESIGN AND OUTLINE SCOPE OF WORKS

4.1 Solar water heating will be provided to serve the building for up to 80% of the year using visible featured roof mounted north facing solar panels and an integral cylinder with an electric top up heater.

4.2 A rainwater collector/re-use system will also be provided. This will consist of a visible timber tank with a filter, pump and pressure vessel located to the rear of the building. The tank will be supplied from the main roof catchment with water being used for toilet flushing and potentially for potable water use in the event of an emergency and in addition to the 3 day potable water storage tank will also be provided. The roof will be coloursteel to maintain roofwater quality.

4.3.1 All sanitary fixtures will be of the ultra low-use type to minimize water usage. Plumbing pipework will be polyethylene for sanitary piping and teflotherm for hot and cold water piping.

4.3.2 Sanitary drainage will normally be discharged to the sanitary sewer with the possibility of diverting the flow to a septic tank in the event of an emergency.

5.0 FIRE SERVICES – BASIS OF DESIGN AND OUTLINE SCOPE OF WORKS

5.1 Subject to the preliminary fire report as a minimum, an automatic fire detection and alarm system will be provided throughout the building. The fire alarm panel will be integrated into the main entry area.

5.2 The option of an automatic sprinkler system will also be considered and priced for at this stage. In the event of this system being provided the automatic fire detection system will be replaced with a manual fire alarm system. The sprinkler system will be supplied from alternative mains and rainwater tank feeds. The capacity of the rainwater tank system will be consistent with the requirements of NZS 4541.

6.0 ELECTRICAL SERVICES – BASIS OF DESIGN AND OUTLINE SCOPE OF WORKS

6.1 Basis of Design

The artificial lighting system will be designed to achieve the following normal levels of illumination

Area	Illumination Levels (Lux)
Foyer	200
Circulation	200
Toilets	200
Offices, Operations, Communications Meeting & Briefing Rooms	500

The above levels of illumination are based on the recommendations of the Chartered Institution of Building Services Engineers (CIBSE).

6.2 Outline Scope of Works

Main and Sub Main Distribution Supplies

A main and sub main distribution system with essential and non-essential supplies will be provided for the building. The essential supply will be supported by an emergency generator and UPS. The generator will be provided with a 3 day oil supply. The option exists to also provide an element of both normal and emergency supply via a photovoltaic array.

Small Power Supplies

A small power system will be reticulated to all areas of the building.

The final installed location of all socket outlets and final connection units needs to be agreed with the client taking into account the fit-out arrangements. Socket outlets on the essential supply will be coloured red whilst those on the non-essential supply will be coloured the normal white.

The small power system will be rated at 230V/50Hz/10A comprising of flush or surface mounted two gang units as appropriate and will be wired using multi core TPS type cables run in perimeter trunking or to floor boxes at low level. Consideration will be given to a raised floor in the main control room.

Small power outlets will generally be protected by single pole MCBs for overcurrent, complete with double pole RCDs for overcurrent.

Artificial Lighting

The building will be provided with artificial lighting in accordance with the recommendations of the CIBSE lighting codes.

The lighting design proposals will be developed with the Architect further and will utilize energy efficient long life light sources.

Generally the lighting design will comprise:

- Offices and Control Rooms. Recessed/Suspended Fluorescent T5 energy efficient luminaires and or uplighters.
- Entry/Corridors Compact fluorescent.

The lighting will be capable of being switched from full level to half level in the event of a prolonged emergency and use of emergency power. Lighting will be daylight switched where practical.

Emergency Lighting

Subject to the Fire Report the building will be provided with an emergency/lighting system to exit ways only.

The system will be designed to provide the required illumination in accordance with the Approved Building Code Document F6: 'Lighting For Emergency'.

Communications and Computer Services

The building will be provided with a CAT 6 communications and computer structured cabling system in accordance with the Client's fit-out requirements.

The telephone system will form part of the communication and information system. The system will meet the required standards of Telecom.

An antennae mast will be provided at roof level for radio and satellite communications with a cable access route to the main control room for fit-out by the Council's specialist contractor or via the building contract.

Security System

The building will be provided with a security system in accordance with agreed Client requirements. This will generally include:

- Detection of unauthorised occupation by means of movement detectors and reed switches to external doors.
- Local control for arming and disarming system.
- Access control to all external doors.

Lift

A limited access disabled platform lift will be provided.

08

Preliminary Cost Estimate

A60

**WAITAKERE CIVIL DEFENCE EMERGENCY MANAGEMENT HQ -
PRELIMINARY ESTIMATE (28103106)**

Total Cost Summary

GFA: Gross floor area

Rates current at March 2006

Zone	Level	GFA m ²	Cost/m ²	Total Cost
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A BASIS OF ESTIMATE

A1	Architectus concept drawings:			
A2	PD-01, PD1-01.02, PD2-01.02.03			
A3	PD3-01			
A4	Structural concept drawings			

B BASE BUILDING WORKS

B1	Site preparation	30,000		
B2	Building works	472	2,097	990,000
B3	Building Services	472	943	445,000
B4	External works	(472)		85,000
472		\$3,284		\$1,550,000

C CIVIL DEFENCE REQUIREMENTS

C1	Portable water storage tank	(472)		20,000
C2	Sanitary storage tank	472	34	16,000
C3	Essential/Non Essential Power			7,500
				\$43,500

D OPTIONAL ITEMS

D1	Rainwater storage tank			13,500
D2	Fire sprinkler system			27,000
D3	Photovoltaic array			16,500
D4	Solar water heating system			4,000
D5	Raised floor to communications			8,000
D6	Dangerous goods store			15,000
				\$84,000

E CONSULTANT'S FEES

Excl.

F ESCALATION

\$50,000

G CONTINGENCY (10%)

\$175,000

H EXCLUSIONS

H1	GST			
H2	FF&E			
H3	Curtains and blinds to windows			
H4	Boundary fence			
H5	Design & Management fees			

Net Cost **472 \$4,031 \$1,902,500**

Carried forward **472 \$4,031 \$1,902,500**

A61

12 April 2006

Private Bag 93109
Henderson
Waitakere City

Auckland Road Pricing Evaluation Study
Ministry of Transport
PO Box 3175
WELLINGTON

Dear Sir/Madam,

Auckland Road Pricing Evaluation Study

Waitakere City Council is pleased to have had some indirect involvement in the study and looks forward to having further opportunities to be involved in the next stages of the project. We appreciate the opportunity to provide comment at this point in time.

The format of this submission is as follows:

1. Comment on the study and its findings
2. Comment on whether road pricing is a good idea
3. Comment on feasible alternatives to road pricing
4. Comment on areas for improvement and problems to be overcome

1. Comment on the study and its findings

Waitakere City Council commends the Ministry of Transport on the quantity and quality of work that has gone into the Auckland Road Pricing Evaluation Study. The study has reached far beyond a traditional technical, modelling-based analysis of the effects of road pricing on traffic movements. In particular, there has been a useful investigation of the environmental, social and land-use implications of road pricing. The particularities of the Auckland context have also been considered in depth and the study has benefited from the Auckland region's input. Mostly importantly, the evaluation framework and evaluation of the options appear to be quite robust.

Waitakere City Council supports the study's focus on reducing congestion as the primary goal and raising revenue as a secondary goal. The study demonstrates in principle that a road pricing scheme could be designed which achieves a significant reduction in congestion in the Auckland region and produces surplus revenue after meeting costs of the scheme, improved passenger transport and other steps towards mitigation of adverse social impacts.

The study confirms the financial and technical feasibility of implementing a road pricing scheme in the Auckland region.

Waitakere City Council understands that the study reached a conclusion about the economic impacts without taking into account indirect productivity gains for business. Accordingly, the conclusions about economic impacts should be treated as understated. The international competitiveness of the Auckland region from an economic perspective is an important outcome which is assisted by road pricing. The analysis based on travel time savings and costs is sound, but not extensive enough to include other economic benefits arising from the transformation of a region

from a path of continued congestion to a path of an extensive passenger transport system and functioning road network, with the right signals for appropriate land use.

The study's analysis of social impacts is welcomed. These highlight the general issues facing the Auckland region under each of the road pricing options. Waitakere City Council encourages the Ministry of Transport to understand the local impacts of each road pricing option on Waitakere City. These are highlighted in this part of the submission and also in the commentary in part 4 regarding problems to overcome.

Implications for Waitakere City

Approximately 56% of Waitakere's residents need to travel out of Waitakere City to work. Apart from those working on the North Shore or in Rodney, all would face the congestion charge for either or both of the cordon schemes. Approximately 27,648 (from the 2001 census) travel to work in Auckland City and Manukau City along State Highway 16 and to State Highway 20. A large number of these workers come from deprived areas and work in lower-income jobs making affordability a real issue. It would be highly unjust if some low-income workers were priced out of a job by not being able to afford the congestion charge and there is no viable passenger transport alternative. There are many areas of high social deprivation within Waitakere City and some of these areas have access to low levels of public transport with high fares.

Residents who would be affected by the road pricing schemes include:

- Those who travel to tertiary institutions and schools in Auckland City;
- Those who travel to social services in Auckland City;
- Those who live in New Lynn near the border of the single cordon.

The problem with a fixed congestion charge is that it can have a very significant impact on low-income people (approximately 20% of Waitakere City households earn less than \$20,000 per annum). For example, a resident earning the minimum wage of \$410 per week has an after-tax income of \$329.54 (assuming no working for families assistance is available). After a double cordon charge of \$30 per week, this person would be left with less than \$300 to live on. Nearly 10% of net income would be spent on the congestion charge in this case.

The proposed congestion charge is lower than the cost of using public transport from Waitakere City to the Auckland CBD. However, parking costs, vehicle operating costs and ownership costs would mean total trip costs by motor vehicle would be higher. Over time it could be expected that a significant number of Waitakere City residents would become dependent on public transport.

The following example compares the daily costs of a return trip from Henderson to the Auckland CBD: \$10 by bus; \$8.40 by train; and \$25 by motor vehicle (\$6 congestion charge; parking \$12 per day; vehicle operating and ownership costs \$7.28). Obviously the cost of trips from outer suburbs such as Massey will be higher. A tolling on State Highways, such as Transit NZ's proposal for tolling the Western Ring Route, would impose an additional charge for travel along State Highway 16 and 20. In particular, Massey residents are trapped by lack of transport choice, with high transport costs to work destinations that are not local and are dependent on car travel.

In addition to the likely spillover onto local roads, a toll on parts of the Western Ring Route would have additional social impacts which would need to be addressed either by the tolling scheme or a road pricing scheme.

In the short term, Waitakere City's work force needs improved public transport, particularly to dispersed employment destinations such as Wiri, Penrose, East Tamaki and Auckland International Airport. Waitakere City Council is concerned that the focus of public transport improvements will be on trips to the Auckland CBD rather than to dispersed locations which may be more costly to subsidise. Waitakere City Council is working hard to increase local jobs with proposed developments in the northern strategic growth areas, but the Resource Management Act processes mean no substantial new jobs before 2010.

Businesses which provide goods or services to Auckland City, including many self-employed trades people, would be affected by road pricing. The study indicates that on balance the cordon pricing and area schemes would have a positive impact (albeit small) on the Waitakere City economy. The cordon scheme would also provide an incentive to develop employment with close access to State Highway 16, such as at the proposed Westgate town centre and industrial area at Massey North.

Improved access to the port and airport on the state highways during peak times is important for business in Waitakere City. Road pricing provides improved travel times to these locations at a cost, which should be less than the increased travel time due to congestion. Businesses which focus entirely within Waitakere City would not face the congestion charge and may benefit from reduced levels of congestion on arterial roads and routes to the town centres at peak times.

The cordon and area charge schemes are likely to have a positive impact on Waitakere City's town centres in terms of their role as vital passenger transport hubs, with greater demand for intensification and development. The introduction of road pricing would require significantly improved passenger transport to be available in Waitakere City – possibly to a level beyond that proposed in the Auckland Regional Land Transport Strategy 2005. This fits well with Waitakere City's Transport Strategy and desired intensification at New Lynn, Henderson, Westgate and along the Western Rail line.

The single cordon scheme would generate demands for parking near the cordon boundary at New Lynn, which would create traffic and parking pressure. In residential areas of Green Bay and South Lynn residential parking schemes may be required to ensure that residents are not displaced by those seeking to park and bus to avoid the congestion charge. There may also be a high demand for a large-scale park and ride at New Lynn, which may not align with Waitakere City Council's aspirations for the town centre and traffic management. Even if a park and ride site could be found, parking costs would need to be less than the congestion charge and vehicle operating costs for people to use it. An effective parking management scheme in New Lynn would be required to allocate kerbside parking to support the town centre rather than to provide free parking to all-day commuters working outside of the City.

Below-street rail in New Lynn would be necessary to provide enough space at street level to effectively manage the competing demands for kerbside space, vehicle movements, high-volume rail and bus movement, and pedestrian and cycle circulation in what is already a very busy transport hub.

Currently, the high car usage in Waitakere City is contributing to the significant environmental damage and health problems being experienced in the Auckland region. Waitakere City is actively seeking solutions to achieve reductions in traffic, air pollution, stormwater runoff and other adverse environmental effects.

From an environmental perspective, the best road pricing option for the region and Waitakere City is the double cordon, closely followed by the area charging scheme.

The study concludes that the bulk of the environmental benefits from road pricing are within the areas of the cordon charge and area charging schemes. The study's modelling work indicates that emission levels in Waitakere City are expected to be similar to current levels.

The double cordon scheme is expected to reduce vehicle kilometres travelled in sensitive catchments with an overall reduction of 10.9% in the region, but a moderate increase in vehicle kilometres travelled in the Upper Waitemata and Henderson Creek catchments is expected.

The double cordon scheme is also projected to decrease particulate emissions by 17.8%, nitrous oxide emissions by 11.8% and achieve a 26.6% reduction in volatile organic compounds in 2016.

In terms of greenhouse gas emissions, the best performing option is the double cordon charge where carbon dioxide emissions would be 33% **above** 1990 levels. By contrast, continuing with the status quo would see greenhouse gas emissions increasing by 47.2%. This indicates that a range of measures are necessary for Waitakere City, the Auckland region and New Zealand as a whole to meet targets for reducing greenhouse gas emissions as agreed in the Kyoto Protocol.

2. Comment on whether road pricing is a good idea

New Zealand needs the Auckland region's economy to be competitive internationally. Road pricing can significantly reduce congestion - congestion is Auckland's biggest barrier to achieving economic competitiveness.

Waitakere City Council believes that road pricing could be an effective tool:

- in addressing congestion and limiting demand.
- in keeping the Auckland region's economy competitive.
- in supporting the compact urban form and intensification of town centres.
- in reducing environmental impacts and improving public health.

Road pricing as a mechanism to reduce congestion has been incorporated into the draft Waitakere City Transport Strategy 2006-2016 for consultation.

Waitakere City Council's support for road pricing would be withheld if these four factors were not present in a proposed scheme:

1. A level of passenger transport is required to be in place before road pricing is introduced so that the desired shift out of the motor vehicle could be accommodated.
2. Road pricing needs to be aligned with any tolls in the Auckland region to ensure fairness across the region.
3. The design of road pricing and mitigation of social effects need to properly address social impacts on Waitakere City residents.
4. Central Government along with Local Government needs to provide strong support for the introduction of road pricing and provide an assurance that surplus revenue will be reinvested in the Auckland region.

Any scheme must be fair and equitable – a scheme cannot disadvantage one area or a single socio-economic group. Road pricing is considered to be a much fairer approach than tolling part or all of the state highway network.

Waitakere City Council requires the passenger transport investment identified in the Auckland Regional Land Transport Strategy 2005 to be funded and put in place to ensure a basic passenger transport system is operational. This is a prerequisite before implementing a road pricing scheme which requires additional passenger transport services.

Waitakere City Council believes that road pricing provides a clear signal that motorists pay a price for their travel that more closely reflects the costs they impose on the environment and on other road users. For example, current fuel taxes provide funds to construct and maintain the road network; to subsidise public transport and support travel demand management activities; to fund the Safety Administration Programme and to provide some funds to the consolidated fund. However, it does not fund little to fund the mitigation of the direct impact of transport on the environment. While a new roading project may include measures to treat stormwater run-off and reduce sedimentation, it does not address the issue of the emissions of the vehicles that will use that route. Similarly, the current absence of road pricing means that there is no price signal for people to consider that their use of the roading network imposes delays on other roads users once the network (and more particularly its choke points) exceeds its capacity.

Waitakere City Council believes that road pricing is a good idea when part of a package of travel demand management measures. This requires commitment from the region and central government to managing levels of traffic and land use. The urban form needs to develop in such a way as to discourage sprawl; encourage intensification of land use around passenger transport nodes and town centres and to strongly support alternatives to single-occupant car driving.

Waitakere City Council believes that road pricing scheme needs as its primary goal the reduction of congestion and raising revenue as the secondary goal. Waitakere City Council sees does merit in the cordon pricing and area charging scenarios in terms of meeting these goals.

Waitakere City Council supports the approach that mitigation steps are part of the road pricing scheme and revenue is used to help fund these. In particular, the passenger transport system **must** have the capacity to accept those diverted car trips **before** the introduction of road pricing.

Waitakere City Council supports the positive environmental impacts of road pricing - both the reduction in vehicle trips (and shift to more sustainable modes of travel) and the fact that the remaining trips result in fewer emissions. We also support the achievement of significant health effects expected from road pricing – both the reduction in air pollution and the increase in active modes of travel.

Waitakere City Council supports the Ministry of Transport progressing to the next steps of the investigation, which should include consideration of issues raised in this submission, and further work in designing a road pricing scheme that is most appropriate for the Auckland region.

Waitakere City Council supports the Government progressing with the policy which would lead to the drafting of legislation to enable road pricing. It is important that if the Government is so inclined to introduce enabling legislation, then it should allow

road pricing not just the Auckland region but also the rest of New Zealand to ensure that a compatible collection system is used for road pricing and tolls throughout New Zealand.

Waitakere City Council believes the parking levy scheme infringes on private property rights, would be challenging to implement and administer and could impact on the revitalisation of town centres. Waitakere City Council believes that any parking levy scheme would need to apply across all similar-scale town centres across the region to avoid the impacts of some centres having an unwarranted competitive advantage over others. While Henderson is building towards having a CBD function for Waitakere City, New Lynn and Westgate are the two other key town centres for Waitakere City. It would seem illogical to impose a parking levy on one of these three town centres and not on the other two. It should also be noted that Waitakere City already charges for long-term parking in council-owned parking areas in Henderson and is planning to extend this to the other two town centres at New Lynn and Westgate. Waitakere City Council also believes, based on modelling carried out as part of the study, that the parking levy scheme would generate significant revenue without achieving significant change in travel behaviour.

Waitakere City Council also has significant reservations about the strategic network charge as the modelling indicates that while effective at reducing congestion on the strategic road network, a lot of this traffic would simply divert to local roads, thereby negating much of its impact. This would result in worse congestion for Waitakere City, particularly along Great North Road and through New Lynn. The strategic network charge option risks choking New Lynn town centre with through-traffic on the Clark / Wolverton / Tiverton route. This would work against the enhancement of the town centre. These effects would defeat the primary purpose of achieving a reduction in congestion.

Waitakere City Council does not support further work being done on the parking levy and strategic network charge options.

3. Comment on feasible alternatives to road pricing

The following are alternatives to road pricing, but are considered to result in less favourable outcomes than the road pricing schemes developed in the study:

- **Increase regional fuel tax.** This is considered to result in relatively little change in congestion. This would however provide a source of funding which could be used to fund passenger transport improvements and to improve the state highway network. Waitakere City Council may support an increase in regional fuel tax of 5 cents per litre and a change to RUC if this would provide the required improvements in the passenger transport system.
- **Increase investment in passenger transport.** The question needs to be satisfied whether a significant increase in passenger transport patronage and corresponding reduction in congestion could arise if further investment is made in passenger transport beyond the level in the Auckland Regional Land Transport Strategy 2005. This might be in the form of lower fares, increased services and a strong marketing approach. Without a commensurate demand side incentive to shift modes, such as increased oil prices, there is a risk that such an approach may not achieve the benefits offered by the road pricing scheme. Such an approach does not provide a new revenue stream to

maintain benefits. Funding sources may need to be supplemented from increased rates, regional fuel tax or a Government contribution.

- **Differentiated vehicle registration fees.** This is unlikely to result in a reduction in congestion but is important in achieving better environmental and health outcomes. The current vehicle registration system has a flat fee for all vehicles of the same type. This system gives no disincentives for purchasing vehicles with poor fuel economy and no incentives to vehicles running either on alternatives fuels or with good fuel economy. While this would not raise significant revenue, it would be clear positive signal for making an environmentally-friendly vehicle purchase.
- **Reduction in roading investment.** A reduced road programme in the Auckland region would be unlikely to reduce congestion levels. However, this approach may limit the growth in traffic and make passenger transport alternatives more attractive. This would require the region to accept a completed roading network. This approach would focus investment and choices on alternatives to the motor vehicle, effective land use and making the most of the existing network. This may set a limit on the economic growth and competitiveness of the Auckland region.
- **Increase expenditure on roading.** This would provide short term reductions in congestion, but stimulate traffic growth and ineffective land use patterns. This is in direct conflict with Waitakere City Council's strategic direction; the Auckland Regional Growth Strategy (which territorial local authorities in the Auckland Region are required to give effect to under the Local Government Amendment Auckland Act in their district schemes); the Auckland Regional Land Transport Strategy 2005 (which has a balanced package of investments in roading; passenger transport and travel demand measures) and the Government's own New Zealand Transport Strategy.
- **Tolling new state highways.** Tolling would provide revenue that would help to fund new state highways. Tolls would have limited impact on congestion on roading network as a whole, as evidenced in the strategic network charging scheme. Tolls would result in higher traffic on local roads and adverse equity effects and effects on low socio-economic groups in Waitakere City, without any mitigation. This would both reduce the net income of people least able to afford it and impose significant costs on territorial local authorities facing a tolling-induced increase in traffic volumes on non-tolled local roads.
- **Rely on oil prices** to increase so that people will be priced out of their motor vehicles and into passenger transport. This approach is uncertain as to timing. It does not provide a source of funds to provide passenger transport alternatives or the mitigation of socio-economic effects. It is also completely passive as it requires waiting for the eventuality of external events imposing a change in travel choice (especially for people with lower incomes). It means that access to travel would be even more strongly predicated on income levels and could price some people out of the travel market (and consequently employment and meaningful participation in life) altogether.
- **Tighter regulation of land use** and transport requirements as part of a regulatory approach to shift modes or reduce congestion. Generally regulation of land use has a very long lead-time to achieving significant effect as the rate of urban renewal is of the order of 1-2% per annum. Waitakere

City Council has been at the forefront on such measures but recognises that these changes are much more pronounced in the medium to long term. Initiatives that create jobs that serve a local catchment can have more immediate effects. For example, there are regional reductions in congestion and length of trips arising from the establishment of a commercial town centre at Westgate or a commercial airport at Whenuapai.

4. Comment on areas for improvement and problems to be overcome

Waitakere City Council requests that the analysis of impacts on business extend beyond those identified in the study. The indirect benefits to business need to be considered as well as evidence from overseas examples about the impacts on business inside, on the border and outside road pricing areas. The London congestion pricing scheme impacts analysis has information that may be useful in this regard.

Waitakere City Council requests the study to be based on the high passenger transport spend identified in the Auckland Regional Land Transport Strategy 2005, rather than a medium passenger transport spend. The high passenger transport spend is part of the adopted strategy and therefore it is logical to use this as the basis of work on road pricing in the Auckland region.

Waitakere City Council requests further analysis identifying the extent of passenger transport improvements; additional cycling and walking routes and improved amenity required to be in place before road pricing is introduced and how that would be funded. Waitakere City Council is not convinced that the level of passenger transport improvements modelled in the study is sufficient to absorb all of the trips that will be diverted by road pricing. In particular, much more attention needs to be provided to the rail passenger system and also bus services on the State Highway 20 corridor towards employment areas in Penrose, Mt Wellington and Auckland International Airport. Waitakere City Council believes that electrification of Auckland's rail network is required to provide the necessary frequency and faster trip times to meet the demand that could be expected from road pricing. Integrated ticketing for public transport plus effective time-integrated feeder bus services to railway stations would be a pre-requisite to help manage impacts on the town centre. Improvements to pedestrian and cycle networks would be required to accommodate people making short trips across the cordon, for example to Avondale town centre or the Rosebank Peninsula.

While road pricing will generate a funding stream after its introduction, there will be significant costs related to its introduction. The Auckland region is extremely unlikely to be in a financial position to be being able to fund the level of mitigation required upfront, given that Auckland already faces a \$700 million shortfall between the funds required to implement the passenger transport elements of the Auckland Regional Land Transport Strategy and the funds available to the region. The level of mitigation required will significantly exceed even the high passenger transport scenario in the Auckland Regional Land Transport Strategy to accommodate the large numbers of diverted car trips expected to be generated by the road pricing scheme. The Ministry of Transport should investigate the option of the Government lending the money upfront to the region to fund the agreed mitigation, with this money to be repaid from the revenue generated by the road pricing scheme once it is implemented.

Waitakere City Council requests that the Government provides a strong assurance that surplus revenue from road pricing will be reinvested in the Auckland region and applied towards passenger transport and travel demand management measures.

Waitakere City Council requests that effective public transport alternatives to the more distant work destinations such as Wiri, East Tamaki and Auckland International Airport are provided as part of the mitigation of socio-economic impacts. We recognise that traditional value-for-money measures may not create an economic justification for some such services but we strongly believe that the mitigation measures must include real, viable and not excessively time-consuming or expensive passenger transport alternatives.

Waitakere City Council requests that as part of the next stage of work, analysis of governance arrangements regarding the collection and management of revenue from road pricing take place. We would expect to see all of the region's territorial local authorities, Transit New Zealand and the Auckland Regional Transport Authority having some involvement in determining such governance arrangements.

Waitakere City Council requests further analysis of the impacts of tolls and road pricing. The combination of these will have different socio-economic effects and should acknowledge existing social issues in suburbs such as Massey and Ranui. A decision is required whether road pricing revenue could replace toll revenue as a funding source.

Waitakere City Council requests that further analysis of social impacts acknowledges that the social impacts of road pricing on some communities will be more than just the additional cost or requirement to use passenger transport.

The Ministry of Transport is encouraged to provide guidance on the appropriateness of tolls combined with road pricing. A balance is required between completing new state highways and reducing congestion. The region may choose to complete certain roading projects using tolls and then introduce road pricing. Decisions are required whether toll revenue would continue after the introduction of road pricing.

Waitakere City Council requests that the work done on Transit New Zealand's national toll collection system be used to ensure a consistent and seamless road pricing experience throughout New Zealand. This would also reduce the cost of implementation by taking advantage of a process that is already underway and would avoid costly duplication.

Waitakere City Council requests that the impacts of road pricing on other funding streams such as petrol tax and allocations from the National Land Transport Fund be analysed and taken into account. For example, road pricing would inevitably lead to a reduction in petrol sales in the Auckland region which would impact on the amount of revenue going into the National Land Transport Fund. The impacts of this revenue loss would be felt not only in the Auckland region but throughout New Zealand.

Waitakere City Council submits that strong leadership from central government as well as local government is required to introduce road pricing in the Auckland region. In the absence of such strong leadership, it is likely that a road pricing scheme would falter through a lack of commitment, resources and political will.

Waitakere City Council is keen to ensure that the benefits in reducing congestion are locked in over time. It is essential that road pricing is part of a package approach in managing travel demand. A range of mechanisms needs to be used including land

use, passenger transport and other travel demand management measures need to be in place concurrently.

Waitakere City Council requests that modelling work be done on the relationship between the setting and level of passenger transport fares and the rate of reduction in car trips caused by road pricing. For example, an increase in passenger transport fares while road pricing is in place (assuming no change in the road price) would reduce the benefits of road pricing by some people switching from passenger transport to paying the congestion charge. As passenger transport is going to be the key alternative to road pricing for the vast majority of diverted car drivers, there needs to be a clear understanding of the linkages between public transport pricing and the congestion charge. It follows that there should be consideration to a linkage between public transport fares and the congestion charge. For example, an increase in public transport fares should be accompanied by a commensurate increase in the congestion charge to maintain pricing relativity.

Further analysis is required regarding the appropriate time to introduce road pricing, taking into account progress on the upgrade of the passenger transport system and the need to provide a further upgrade prior to introduction.

Waitakere City Council requests analysis of the effects of and the mechanism to allow high-occupancy vehicles to be exempt from the congestion charge. Ridesharing contributes to achieving 2005 Auckland Regional Land Transport Strategy and National Land Transport Strategy goals of making more efficient use of the roading network by increasing average vehicle occupancies and should not be penalised by any road pricing scheme. The design of a road pricing scheme should recognise the existing and future commitments to high occupancy vehicle lanes and promotion of ridesharing.

Waitakere City Council believes that there would be merit in exploring a single cordon / area charge hybrid option. Even if the modelled effects of these two options weren't fully cumulative (through double-counting and other factors), it is possible that this hybrid would have a bigger positive impact than the double cordon option. It would also provide a pricing incentive for people living closest to the Auckland CBD who already have the strongest passenger transport alternatives available and where distances are such that walking and cycling trips, given the right conditions for pedestrians and cyclists, would be much more likely. This hybrid scheme would also have a better balance between those who pay and those who benefit.

Waitakere City Council requests that the following mitigation measures address the specific impacts on the New Lynn town centre be incorporated into the next phase of work on road pricing:

- Below-street rail in New Lynn with a minimum rail platform length of 180 metres to free up surface street space for bus movements, cycleways and improved pedestrian routes, all of which should be provided as part of the mitigation.
- Funding towards the implementation of a comprehensive parking management plan for the New Lynn town centre to avoid the needs of long-term commuters working elsewhere in the region monopolises kerbside parking also needed to support the variety of local land uses.

- A time- and fare-integrated network of bus feeder services to New Lynn station to provide a viable alternative to park and ride and which involves no fare penalty over the cost of a rail trip from New Lynn.
- Sufficient rail capacity – both in terms of train frequency and length – to meet the level of demand from New Lynn.

One risk from the introduction of road pricing could be that the focus of mitigation is so much on trips across the cordons that internal travel outside of the cordon, such as within Waitakere City is neglected. Waitakere City Council advocates strongly that a road pricing scheme takes into account impacts on local roads outside the charging area.

Waitakere City Council also requests work be done on the need for residents parking schemes in areas bordering any cordon charge to avoid kerbside parking in these areas being dominated by all-day commuters seeking to avoid the congestion charge by transferring to passenger transport as close to the cordon as possible.

Waitakere City Council requests that the Ministry of Transport investigate the possibility of reducing the level of regional fuel tax after the introduction of road pricing to reflect the new revenue source. The overall revenue extracted from the Auckland region needs to be equitable in relation to the revenue extracted from other parts of New Zealand.

We wish to thank the Ministry of Transport for the amount and high quality of the work put into the Auckland Region Road Pricing Evaluation Study. We look forward to receiving your response to this submission and to working together with you on the further development of road pricing options for the Auckland region.

Yours sincerely

Harry O'Rourke
Chief Executive