













Standard Technical Specifications Part 1 – General

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1.0 General

These standard technical specifications set out the standards for materials and construction that are required by Matamata Piako District Council.

These standard technical specifications apply to all works that are for Council whether by way of direct contract to Council or as part of a development where the infrastructural assets will become part of the Council network following completion.

All drawings referred to are found appended in the relevant Part of the Specifications.

2.0 Health and Safety

All work being carried out either as a direct contract to Council, or as part of a subdivision development shall be completed in such a manner that it complies in every aspect with the Health & Safety in Employment Act 1992 and its amendments.

Prior to any work commencing, it is necessary that an "approved" Health & Safety Plan be provided.

Where the work extends onto the existing road network, the Contractor shall provide and maintain an approved temporary traffic management scheme in accordance with the NZTA 'Code of Practice for Temporary Traffic Management'.

3.0 Industry Standards and Industry Best Practice

Where there is an approved Industry Standard such as ANZ Standards (www.standards.co.nz) or recognised industry best practice, these should be applied to all workmanship. The current relevant standards that control the design, construction and installation of land development and civil engineering system, which are referred to throughout this manual, include but are not limited to:

Schedule of documents referred to in Part 2 – Earthworks					
Standard					
NZS 4402:1988 Soil Compaction and Strength Tests					
NZS 4431:1989 Code of Practice for Earth Fill for Residential Development					
Other Documents					
Moturiki Datum (Level Datum)					
NZGD2000 (New Zealand Geodetic Datum 2000)					
NZTA Specification F/1 – Earthworks Construction					
NZTM (New Zealand Transverse Mercator)					
WRC (EW) Guidelines – "Erosion and Sediment Control for Soil Disturbing Activities"					

Schedule of documents referred to in Part 3 - Roading

		g .
Standard		
AS/NZS	1158:2010	Lighting for Roads and Public Spaces
AS/NZS	2312:2002	Guide to the Protection of Structural Steel against corrosion
AS/NZS	3000:2007	Electrical Installations

NZS	4676:2000 4677:2000 5414:1977	Concrete Segmental & Flagstone Paving Concrete Production Concrete Construction Specification for Concrete Surface Finishes Water and Aggregate for Concrete Portland and Blended Cement Soil Compaction Tests Sampling and Testing Roading Aggregate Steel Reinforcing Materials Structural Design for Service Poles Steel Utility Poles Construction of Traffic Signs gency Documents	
NZTA	B/2:2005	~ .	orc
NZTA	C/20:2003	Construction of Unbound Granular Pavement lay Erection and Maintenance of Traffic Signs, Chev	
NZTA NZTA NZTA NZTA NZTA NZTA NZTA NZTA	C/24:1991 F/1:1997 F/2:2000 M/1:2011 M/4:2006 M/6:2011 M/7:2009 M/10:2010 M/12:2007 M/19:1994 M/20:2003 M/24:2009 P/3:1995 P/4:1995 P/9:1975 P/11:2007 P/12:2000 P/14:1995 P/22:2006 T/1:1977 T/3:1981 T/8:2008 T/12:2003	& Rails Maintance of Highway Lighting Earthworks Construction Pipe Subsoil Drain Construction Roading Bitumen Basecourse Aggregate Sealing Chip Roadmarking Paint Asphaltic Concrete Raised Pavement Markers Tubular Steel Lighting Column Long-Life Roadmarking Materials Audio Tactile Profiled Roadmarking First Coat Seal Resealing Asphaltic Concrete Paving Construction Open Graded Porous Asphalt Pavement Marking Raised Pavement Marker Installation Refectorised Pavement Paint Benkelman Beam Deflection Measurement Texture Measurement by Sand Circle method Roadmarking Paint Applicator Testing Long-life Road Marking Applicator Testing	
Other Docu		ant Dulas Traffia Control Desiler - 0004	N 1-7
TDC Rule	Land Transp	ort Rule: Traffic Control Devices 2004	NZ TA
MoTSaM	Manual of Signature	gns and Markings Part II	NZ TA
CoPTTM	Code of Prac	ctice for Tempory Traffic Management	NZ TA
Signs	Manufacturers ban Roadmark	Association Compliance Standard for Traffic king	RS MA NZ TA

Schedule of documents referred to in Part 4 -	Stormwater and Wastewater
Standard	

AS/NZS 2032:2006 Installation of PVC Pipe Systems				
NZS 3109:1997 Concrete Construction				
NZS 3114:1987 Specification for Concrete Surface Finishes				
AS/NZS 3725:2007 Design for Installation of Buried Concrete Pipes				
Other Documents				
Moturiki Datum (Level Datum)				
MPDC Consolidated Bylaw 2008				
NZ Building Code – Clause E1 "Surface Water"				
NZGD2000 (New Zealand Geodetic Datum 2000)				
NZTM (New Zealand Transverse Mercator)				

Schedule of documents referred to in Part 5 – Wastewater Pump Stations					
Standard					
AS/NZS	AS/NZS 2845.1:2009 Stand-alone Power Systems – Safety and Installation				
AS/NZS 3000:2007 Electrical Installations (Australian/New Zealand Wiring Rules)					
AS/NZS	3017:2007	Electrical Installations – Verification Guidelines			
Other Docum	nents				
Electricity Ac	t 1992				
Electricity Safety Regulations 2010					
Moturiki Datum (Level Datum)					
NZ Building Code – Clause G12 "Water Supplies"					
NZ ECP 04 (Supply by LV Generating Systems)					
NZ ECP 11 (Testing)					
NZ ECP 17 (Control Protection and Switch Boards					
NZ ECP 36 (Harmonic Levels)					
NZGD2000 (New Zealand Geodetic Datum 2000)					
NZTM (New Zealand Transverse Mercator)					

Schedule of	f documents re	eferred to in Part 6 – Water Supply		
Standard				
BS 4515-1:2009 Specifications for Welding of Steel Pipeline on Land & Offshore				
AS/NZS	2032:2006	Installation of PVC Pipe Systems		
AS/NZS	S/NZS 2566.2:2006 Buried Flexible Pipelines - Installation			
SNZ PAS	NZ PAS 4509:2008 NZ Fire Service Firefighting Water Supplies Code of			
	Practice			
Other Documents				
Moturiki Datum (Level Datum)				
MPDC Consolidated Bylaw 2008				
NZ Building Code – Clause G12 "Water Supplies"				
NZGD2000 (New Zealand Geodetic Datum 2000)				
NZTM (New Zealand Transverse Mercator)				

Schedule of documents referred to in Part 7 – Landscape Works			
Standard			
NZS	8409:2004	Management of Agrichemicals	
SNZ HB 8630:2004 Tracks and outdoor visitor st		Tracks and outdoor visitor structures	
Other Documents			

MPDC District Tree Strategy 2010

Waikato Regional Pest Management Strategy

Growsafe Code of Practice for Safe Use of Pesticides and Herbicides

All work shall comply with and be consistent with any current and operating Matamata-Piako District Council adopted strategies and policies, unless exemption to this is approved by the Engineer.

4.0 Existing Utility Network Services

4.1 Utility Network Services

Works of any nature may encounter utility network services whether overhead or underground. The following specifications set out minimum requirements and guidelines. The contract documents will set out the respective responsibilities of the parties.

4.2 General

The Contractor shall at all times have a full set of up to date service plans for the entire site. These service plans shall be produced by each service authority and shall include the key for all symbols used on their plans.

The service authorities are:

- Powerco Ltd
- Telecom New Zealand Limited
- Telstra Clear
- Vector (Gas)
- Matamata-Piako District Council

A full set of these plans should also be readily available for the Engineer to refer to when required.

4.3 Existing Utility Services

The Contractor shall, before starting any excavation work, obtain all necessary consents for excavating in the region of any service. The Contractor shall be bound by the Special Restraints imposed on work methods as set down below:

Special Restraints for:

Underground Electricity Power Cables

All cables and slabs are to be located by hand-digging. If requested by the Contractor, supervision of deep excavation (i.e. below 0.4m) will be provided by the controlling electrical lines company at the Contractor's expense. 48 hours notice must be given to ensure adequate supervision can be provided.

11,000 & 33,000 volt cables, or covering slabs are to be located by hand-digging. The Contractor is advised to request supervision from the controlling electrical lines Company when working within 2.0m horizontal distance of a 11,000 or 33,000 volt cable. When requested, supervision will be provided by the controlling electrical lines company at the Contractor's expense. 48 hours notice must be given to ensure adequate supervision can be provided.

No cables are to be moved by anyone without authorisation from the appropriate electrical supply authority or the owner of the cables where they are privately owned.

Note

Matamata Piako District Council and Powerco Ltd accept no liability for Contractors working in the vicinity of PowerCo Ltd cables. The Contractor involved in the work shall be responsible for the location of the cables in the affected area of work.

Matamata Piako District Council and Powerco Ltd do not automatically require supervision of work near cables of any voltage - the decision to request supervision is that of the Contractor.

The Contractor shall follow any instructions from the controlling electrical authority with regard to work near cables of any voltage.

Telecom Coaxial Cables. (Telecom provides a free plan and cable location service by Telephoning 124).

Supervision by Telecom staff is required when excavating within 2.0m of the position of a coaxial cable, as determined by a pipe locator and recorded with pegs at intervals of 4.0m, or within 2.0m of fibre-optic cable.

Machinery can be used up to 0.5m from the cable when the cable has been located by hand at intervals of not greater than 2.0m. The machinery is to be operated away from the cable. 48 hours notification is required in all cases except genuine cases of emergency.

Gas Mains

- i) Mains up to 400 KPa pressure when working closer than 0.3m vertical or 0.6m horizontal, mains are to be located by hand-digging.
- ii) Mains over 400 KPa pressure when working closer than 0.5m vertical or 1.0m horizontal mains are to be located by hand-digging under supervision of the Gas Distribution Authority and continuous supervision during construction is required.

48 hours notification is required in all cases except genuine cases of emergency.

4.4 Service Covers

4.4.1 General

During construction no rollers or compactors or any other equipment which may cause damage shall be used over service boxes.

After construction or rehabilitation of the pavement courses and prior to final compaction and surfacing, all surface covers shall be adjusted in level so as to be generally flush with the finished surfaces. In some cases service covers are already hidden or buried and these shall be located, from the service plans, uncovered and adjusted. Service covers shall be so located as to allow access for their intended purpose.

Note: During the course of construction, all surface openings of underground services must be maintained clear of spoil and be readily accessible at all times.

4.4.2 Water Supply Covers

Water covers include, but are not limited to, the following:

- Toby boxes usually circular and found in berm areas
- Fire hydrants found in berms and carriageways (yellow)
- Valve boxes usually marked "V"
- Air bleed boxes similar to fire hydrant boxes (painted white)
- Manholes (housing large valves enclosed in chambers

These covers shall be adjusted by the Contractor in accordance with the relevant Standard Technical Specification

The adjustments shall be made according to Standard Details and must be to the correct level as any subsequent adjustment required will be at the Contractor's expense.

The Kaimai Valley Services Unit of the Matamata Piako District Council will inspect the adjustment work. 24 hour notification to inspect is required.

4.4.3 Water Supply Marker Posts

Marker posts are installed in the berms to mark the following:

- Hydrants
- Valves
- Air bleed boxes

The Contractor shall ensure that any marker post damaged or removed during the course of the work is replaced and/or reinstated in the correct location as soon as possible at the Contractor's cost.

4.4.4 Telecom Service Covers and Above-ground Structures

Such structures include, but are not limited to, the following:

Aluminium or glass reinforced plastic (G.R.P) cabinets Aluminium oval shaped covers - usually in berm areas Fibre cement manholes - usually in the berms Manholes with steel or concrete lids - in berms and in carriageways Cable protection up poles

These will be adjusted by Telecom New Zealand Ltd. This work is to be arranged by the Contractor after liaison with the Engineer and the Contractor shall give adequate notice to the authority when they require this work to be carried out. The Contractor shall ensure that the adjustment is to correct level as any subsequent adjustment will be at the Contractor's expense.

4.4.5 Electrical Above-ground Structures

Such structures include, but are not limited to, the following:

- Pillar boxes usually in the berms near the boundary
- Transformer cabinets
- Cable protection up poles

These will be adjusted by Powerco Ltd. This work is to be arranged by the Contractor after liaison with the Engineer and the Contractor shall give adequate notice to the authority when they require this work to be carried out. The Contractor shall ensure adjustment is to the correct level and location as any subsequent adjustment will be at the Contractor's expense.

Note

Where earthing straps for transformer boxes are damaged or no longer in contact with the ground, the Contractor shall report this to Powerco Ltd.

4.4.6 Gas Service Covers

Gas valve boxes include, but are not limited to, the following:

- unmarked approx 100 x 100 sized lids
- marked "HCC" Gas"
- marked "NGW"

These service covers will be adjusted by Natural Gas Corporation of N.Z. This work is to be arranged by the Contractor and the Contractor shall give adequate (48 hour) notice to the Authority of when they require this work to be carried out. The Contractor shall ensure that adjustment is to the correct level. Natural Gas Corporation of NZ do not charge for one time adjustment, provided that the correct notice requirements have been met.

4.4.7 Stormwater and Sanitary Sewer Covers and Structures

Such structures include, but are not limited to, the following:

- Manholes
- Gully traps
- Pump Station structures
- Pump Station electrical cabinets

The adjustment of manholes shall be carried out by the Contractor after liaison with the Engineer and notification to the Water & Waste Services Unit of Matamata Piako District Council at least 48 hours prior to commencement of work. No debris shall be allowed to enter the sewers during this work.

For all other structures that may need adjusting, liaison should be with the Water & Waste Services Unit.

4.4.8 Survey Standard Covers

The adjustment of all survey standard covers shall be carried out by the Contractor after liaison with the Engineer.

4.4.9 Other Surface Openings and Structures

The Contractor shall arrange for the adjustment of all other surface openings and structures. These works shall be carried out by the appropriate service authority.

4.4.10 Payment

Unless noted otherwise, the Contractor shall have allowed for all adjustments, costs and attendances.

5.0 Catchpits

Special care shall be taken to prevent catchpit chambers being filled, or catchpit grates being blocked with any rubble, topsoil, sealing chip, asphalt, concrete or other spoil created during the works. The Contractor shall ensure that all catchpit chambers are clean and all grates are open and clear at all times, and at the end of the works the Contractor shall clean all catchpits.

6.0 Working within the vicinity of trees

Guidelines for work within the vicinity of trees can be found in the Matamata-Piako District Tree Strategy 2010 – Part Three. Before commencement of any works within the dripline or vicinity of any tree(s), the Contractor shall familiar themselves with these guidelines.

The Contractor shall endeavour to mitigate and prevent potential damage both to the above ground structures of the tree(s) and the underground root systems. Refer to Part 7 Standard Drawings – Landscape Works TP 1a and TP 1b.

There are specific rules within the tree protection provisions of the District Plan in relation to undertaking work within the dripline of any protected tree or group of trees. These provisions shall be considered prior to the commencement of any works.

7.0 Completed works

Upon completion of works the Contractor shall supply to council As-built plans for any assets to be vested in council.

8.0 Forms

Form 1.1: Notice of intention to commence development works

(This form to be completed by the Developer and sent to the Subdivision Officer, MPDC Regulatory Planning Department - Fax 07 884 8865)

MPDC Consent No:	
Development Location:	Stage:
Engineering Design approval issued on:	
Name of Developer:	Contact Phone:
Developer's Engineer:	Contact Phone:
(responsible for certifying quality and compliant	ance)
Works Commencement Date:	Proposed Duration:
Name of Contractor:	
Pre-construction Meeting Arranged:	
Venue:	Date:
(required attendees: Developer, Developer's MPDC Representative)	Engineer, Contractor, Waikato RC Rep
Engineer's Rep Contact Details:	
Contractor's Rep Contact Details: MPDC Representative Contact Details:	
MPDC Representative Contact Details:	
Regional Council Rep Contact Details:	
Waikato Regional Council advised of works	and consent issued:
Disposal of surplus soil required:	_
Disposal Site Approved:	
Corridor access request issued:	•
Rights of Entry from neighbours obtained:	
Health & Safety Plan prepared and approved	d by MPDC:
Insurances in place:	
Traffic Management Plan approved by RCA:	
Name:	
Ciana a de	
Signed: (signed by Developer	
Date Giorieo dy Develobel	,

Form 1.2: Items to be corrected or requiring acti	Form 1.2:	Items to	be co	rrected or	requiring	action
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Site:

Job: _____

Correction Form No.:

Date:

Inspection: i) Type							
	ii) Area						
No	Action Required	Party to Action	Party to Accept	Acceptance Approved Date			
		71011011	7100001	7100000	Date		

Copy for: Contractor/Developer/Council

Master form to be retained by developer and returned at time of final acceptance, duly completed.

Form 1.3: Compliance acceptance release checklist

Ref	No:		Date: _			
Title	:					
Site:						
MPE	OC Representative:					
	lo(s):					
		N/A	Confi Provi		Final C	Check
			Yes	No	ОК	Not OK
1)	Completed checklists					
2)	Correction action items					
3)	Schedule of work to be bonded for					
4)	Bonding arrangements:					
	Refundable deposit details					
	In-house bond details					
	Deposit paid					
5)	Resource consent approval conditions satisfied					
6)	Engineering drawing approval conditions satisfied					
7)	Final certified as-builts					
8)	Certification of works					
9)	Details of arrangements for connection to public lines:					
	Wastewater					
	Stormwater					
	Watermain					
1 0)	Overland flowpaths:					
	As-builts					
	Floor levels					
	Easements					
1 1)	Right to entry release confirmation					
1 2)	Other items:					

Form 1.4: GST requirements

Details:

Date:	
Subdivision Name	
Developer Representative	
Address	
Issued to (Applicant)	
DPS Number(s)	

Land Costs

	Area m ²		Value \$
Land Values			
Vested as Road			
Reserves: Local Purpose Reserves (all types)			
reserves (all types)			
Other (name)			
Total		m²	

NB: All figures are GST INCLUSIVE

Form 1.5: Subdividers/Developers Tax Invoice (GST Registered)

Company Name	
GST Number	
Address	
Date	
Issued to MATAMATA-PIAKO	DISTRICT COUNCIL
Dr to	
	(Subdivider/Developer) *
	IAKO DISTRICT COUNCIL of roading, reserve, ided in Resource Consent for a lated at
drainage and watermains inclu	ded in Resource Consent for a
drainage and watermains inclu	ded in Resource Consentfor a
drainage and watermains inclusive subdivision/development * location DPS Number (s) Land to Vest m²	ded in Resource Consentfor a
drainage and watermains inclusive subdivision/development * location DPS Number (s) Land to Vest m² Total (A)	ded in Resource Consentfor a
drainage and watermains inclusive subdivision/development * located DPS Number (s) Land to Vest m² Total (A) Construction Cost	ded in Resource Consent for a lated at
drainage and watermains inclusive subdivision/development * location DPS Number (s) Land to Vest m² Total (A)	ded in Resource Consent for a lated at
drainage and watermains inclusive subdivision/development * located DPS Number (s) Land to Vest m² Total (A) Construction Cost	ded in Resource Consent for a attend at (incl. GST)
drainage and watermains inclusive subdivision/development * located DPS Number (s) Land to Vest m² Total (A) Construction Cost Total (B) TOTAL	(incl. GST)
drainage and watermains inclusive subdivision/development * location DPS Number (s) Land to Vest m² Total (A) Construction Cost Total (B)	(incl. GST)

^{*} delete as applicable

Form 1.6: Subdividers/Developers Tax Invoice (Not GST Registered)

Name		
Address		
Date		
Issued to MATAMATA-PIA	AKO DISTRI	ICT COUNCIL
Dr to		
	(Subdivider	r/Developer) *
drainage and watermains inclu a subdivision/development * lo	ded in Reso	ICT COUNCIL of roading, reserve, urce Consent for
DPS Number (s)		
Land to Vest m ²		
Total (A)		(incl. GST)
Construction Cost		
Total (B)		(incl. GST)
TOTAL		(incl. GST)
I confirm that for the purposes registered for GST. Signed	of the above	subdivision/development I am not
Date		

^{*} delete as applicable

Form 1.7: Asset register/schedule of engineering items

UTILITIES							
Sanitary Sewer	Units	Quantity	Type / Description	Rate	Cost (incl GST)		
Mains	m						
Manholes	No.						
Service Lines	m						
Connections	No.						
Pump Stations	No.						
(complete)							
Rising Mains	m						
Other							
			SUB-TOTAL				
Water Supply	Units	Quantity	Type / Description	Rate	Cost (incl GST)		
Mains	m				,		
Ridermains	m						
Service Lines	m						
Connections	No.						
Fire Hydrants	No.						
Sluice Valves	No.						
Other							
			SUB-TOTAL				
Stormwater	Units	Quantity	Type / Description	Rate	Cost (incl GST)		
Mains	m				,		
Manholes	m						
Service Lines	m						
Connections	No.						
Catchpits/Sumps*	No.						
Inlet/Outlet Structures	No.						
Culverts	m						
Other							
			SUB- TOTAL				
ROADING							
Roading	Units	Quantity	Type / Description	Rate	Cost (incl GST)		
Road Formation (incl. berms & topsoil)	m ²						
Subbase	m ²						
Basecourse	m ²						
Surfacing	m						
Kerb & Channel	m ²						
Footpaths (incl. w/ways & c/ways)	m ²						
Urban Vehicle	m ²						
Crossings	111						
Rural Vehicle	No.						
Crossings							
Rural Drainage (incl. cu	ulverts,	lump					

catchpits & leads)	sum					
Street Lighting	lump					
	sum					
Signage & Marking		lump				
		sum				
Other (i.e. bridges, culverts, walls etc)						
				SUB-		
				TOTAL		
LANDSCAPE WORKS						
Landscape works	Units	Quantity	Type / Description		Rate	Cost (incl GST)
Litter bin	ea					
Seat	ea					
Picnic table	ea					
Hand rail m						
Bike stand ea						
Other (i.e drinking fountains)						
				SUB-		
				TOTAL		
				TOTAL	(B)	

Please continue details as necessary, on separate list, and INCLUDE: (i) Fees paid to join to existing reticulation

- (ii)
- Additional services installed by Council (water/drainage/roading)

 Any contribution paid BY COUNCIL to install services 1.1. (water/drainage/roading)