



ENGINEERING DESIGN APPROVAL APPLICATION

Council Resource Consent File Number: SB.....for Subdivision or RC.....For land use

Name of Subdivision:

Engineer to the

Contract:

Property Address:

Agent Contact Details:

Address for Service of Agent:

Phone: ()

Mobile: ()

Fax: ()

Email:

Design Report Attached:

Proposed road alignment safety audit attached:

Plans Attached for: (Please tick where applicable)

Earthworks and Retaining walls

Streetlighting

Roading

Stormwater

Sanitary Sewer

Water

Landscaping

Construction Specification Enclosed or:

Reference is to Councils Development Code or:

Both where there are specific requirements

Quality Plan, testing schedules and monitoring

Schedule of Assets to determine the processing fee enclosed

All submitted plans are in accordance with the Western Bay of Plenty District Council's Development Code

Checklist has been completed

If not in accordance, have the alternative designs been adequately addressed including supporting calculations, design philosophy etc.

Yes No N/A

If yes, please provide list of those items subject to alternative design:

.....
.....
.....
.....
.....
.....

OFFICE USE ONLY – Receipt to RCON

Design Certification Statement.

As an Independent Professional I have carried out a review of the Engineering Design Documents against the requirements of the Conditions of the Subdivision Consent and the Design requirements of Council's Development Code of Practice. Based upon this review the design information supplied by me as an Independent Professionals engaged to design the works, I hereby certify on the basis of reasonable and appropriate enquiry that the design works comply with the conditions of consent and are in accordance with sound Engineering Design and complies with the District Plan and the Development Code of Practice.

Any alternatives to the design shall be detailed in the report with supporting technical analysis to support any departures from the Development Code of Practice requirements.

Applicant's Signature: Qualifications:

Date:
(To be signed on behalf of the applicant)

The Engineer to the contract signing the above statement shall have the appropriate Engineering Qualifications in accordance with the requirements of Council's Development Code of Practice and District Plan Rule 12.3.9.

Fees and Charges – see Council publication for details*:

*Note: Fees and charges include GST

Amount enclosed: \$ _____

Payment Details:

Name and address of person liable for application processing fees / refunds (where applicable)
An invoice will be forwarded to the agent prior to the release of the approved engineering documents.
This invoice is calculated in accordance with WBOPDC's Fees & Charges and may include additional Costs incurred for actual time taken to review.

First Names/s (in full): Surname:

Postal Address:

.....

Phone: () Mobile: ()

Fax: () Email:

Please forward this form with the listed requirements to Land Development Engineer.

81(b)(i) Checklist

Notes:

1. This checklist is to be filled out by the applicant.
2. The list is a guide for applicants and Council staff to make sure that all criteria needed for the development have been taken into consideration and are included in the report/designs.
3. Cross references to the Code's relevant sections and standard drawings are included, as well as some District Plan Rules – however these may be incomplete.
4. Compliance and the Development Code rules is the applicant's responsibility.
5. Simply check each element (item) and tick (✓) the relevant box for Yes or Not Applicable.
6. Please only submit those pages that apply to your development.

Item	Development Code Sections	Drawing No.	District Plan Rule or other	Yes – considered and included in design report/drawings. Tick boxes below	Not applicable. Tick boxes below	Comments
GENERAL:						
Design Report/Drawings						
All applications shall include a written report (design report) and drawings that address the items below and any specific Council requirements						
Drawings provided shall have the following: <ul style="list-style-type: none"> a) Scale bar. b) Drawn to an approved scale. c) Drawing printed to scale. d) Drawings to have name and signature of designer, reviewer and approved by. e) Include any revisions, a description of changes and date. 	DS1.15.1					

Item	Development Code Sections	Drawing No.	District Plan Rule or other	Yes – considered and included in design report/drawings. Tick boxes below	Not applicable. Tick boxes below	Comments
Specifications and Quality						
Councils Development Code should be referred to on the drawings and in the report. Please do NOT supply specifications for elements already covered by the Code. Applicants may need to provide specifications for some elements of the design where designs are specific or alternative to the Code. Specifications which do not comply with Council's Specifications shall be listed and an explanation provided of why Council's Standard Documents have not being used.	SC series and DS1.15.2					
Quality Plan including all testing and materials to be provided.	Cert 1 quality check lists and DS1.15.2.					
Confirm the level of monitoring of the Construction works.	DS3.1					
Materials						
All materials for all works shall be as per the approved products and materials listed in this Code and in the Tauranga City IDC unless otherwise approved.	See Construction section "Approved Products & Materials" and TCC - IDC					
Resource Consent						
Check resource consent conditions for any specific requirements and include in report/design.						
DESIGN ELEMENTS:						
Earthworks Construction						
Cut and Fill batters (max 4.5m high then generally a geotechnical report is required)	DS4.15	W417				

Item	Development Code Sections	Drawing No.	District Plan Rule or other	Yes – considered and included in design report/drawings. Tick boxes below	Not applicable. Tick boxes below	Comments
Land contouring/building platform formation/bulk earthworks for road alignments- in accordance with preliminary or subsequent geotechnical report and Development Code. Review of cut batter stability and runout zones.	DS4.15 DS10					
Retaining walls – show any proposed and note that any over 1.5m high or subject to surcharge require Building Consent.			Building Act			
Retaining wall drainage, design to be provided.			Building Act			
Retaining wall, over 1.0m in height requires a hand rail.			Building Act			
Earthworks over 5000m ³ require Regional Council consent.						
Specific evaluation of effects required for any filling of floodable areas, may need approval from the Bay of Plenty Regional Council.			8.3.3(b)			
Topsoiling & Re-grassing of Batters, Hydro-seeding	DS4.15.2					
Confirm that the geotechnical report has been signed by the appropriate level of Geo-Professional.	DS10A.3					
Road Alignment/Intersections/Gradients/Cross falls:						
Design is in accordance with concept stage safety audit – evidence provided.	DS4.2.1(iv), DS4.2.4 & DS4.3.1(iv)		12.3.8 (h)& (i)			
Widths and gradients in accordance with tables. Review provided for the	DS4.2					

Item	Development Code Sections	Drawing No.	District Plan Rule or other	Yes – considered and included in design report/drawings. Tick boxes below	Not applicable. Tick boxes below	Comments
potential number of lots to be served.						
Geometric Design – Code & latest versions of Austroads. K values for vertical curves, minimum horizontal curve radius, super elevation and widening requirements. Design speed assessment. To be reviewed in safety audit.	DS4.3, DS4.3.5 and Austroads.					
Intersections/Roundabouts - Check ADT, Austroads standards for SISI & ESD, Gradient 0.5 -> 3% for first 10m. Intersections to be square to intersecting road.	DS4.3.8 & 4.3.9					
Intersection turning radius, 10m urban when width <12m, 12m Industrial when width <12m, rural 15m. Provide enlarged details of the intersection including kerb levels and resultant grades.	DS4.3.8.	W407				
Roundabouts, confirm design vehicle and clearances to K&C provided. Vegetation design, centre island materials, signage and splitter island.	DS4.3.9					
Gradients & Curves. Centre line chainage on design plans and intersections shown on longsections.	DS4.3.4 to 4.3.7					
Road cross sections to be provided with berm gradients.						
Subsoil drains to be shown on cross sections.		W422				
Cul-de-sacs/Turning heads, radius design for land zoning and number of lots served.	DS4.2.5	W406				

Item	Development Code Sections	Drawing No.	District Plan Rule or other	Yes – considered and included in design report/drawings. Tick boxes below	Not applicable. Tick boxes below	Comments
Footpath crossing design, 1 side to 30 lots, both sides above 30 lots. Pram crossing to suit splitter island.	DS4.9	W407				
Cycle Lanes – on carriageway	DS4.2.3					
Cycle lanes – Shared with footpath		W446 & 449				
Pavement marking of centre line, edge lines and intersections.	DS4 Appendix 1.					
Signage provided at all intersections and reviewed in safety audit.	DS4 Appendix 1.					
Pavement Construction:						
Pavement Design/Subgrade Testing	DS4.5					
Pavement depths - Flexible pavement design chart provided	DS4 - Appendix 3					
Public road to use TNZ M4.	DS4.6.4					
Minimum and Maximum depths of pavement layers. Basecourse – minimum of 170mm Maximum, 200mm layers. Subbase – min, 2.5 x max stone Maximum, 200mm layers.	DS4.6.4		TNZ B2			
Sub-base & Basecourse Specified	DS4.6.3 & 4.6.4					
Key in detail for extension of existing road pavements.						
Carriageway Surfacing	DS4.6.5 to 4.6.7					
Privateways: Urban & Rural, Provide longsections to Urban ROW's.	DS4.7	W438 & W439				
Privateways: Minden Lifestyle Zones	DS4.7.3		12.4.4.4(f)			
Service Lanes	DS4.14					

Item	Development Code Sections	Drawing No.	District Plan Rule or other	Yes – considered and included in design report/drawings. Tick boxes below	Not applicable. Tick boxes below	Comments
Concrete Works, structures and Markings:						
All concrete to be 20 mPa at 28 days.		W422, W435.				
Kerb & Channel, concrete works – leveling course/sub soil drains,	DS4.8	W422 to W426				
Footpath Construction	DS4.9					
Guardrails	DS4.10 & 4.16.3					
Pavement marking & signage	DS4.4					
Vehicle Entrances / Crossings						
Compliance with sight distances		W415				
Separations from intersections, Urban 8m, Commercial 25m and Rural 30m.		W414				
Build entrances at confined locations, urban <10m complying frontage, rural <30m complying frontage.		DS4.11.1				
Crossing design for Urban or Commercial, width and depth compliance. Separations provided to sumps, poles and signage.		W435, 436.				
Design to Code standards	DS4.6.8 & 4.6.9	W435, 436 & 437				
Check entrances required by Consent Conditions						
Existing vehicle entrances reinstated						
Consents of effected land owners (existing entrances)						
Stormwater Drainage						

Item	Development Code Sections	Drawing No.	District Plan Rule or other	Yes – considered and included in design report/drawings. Tick boxes below	Not applicable. Tick boxes below	Comments
Formation of table drains, scour protection		W417				
Bridges & culverts (also see separate section below for Bridges)	DS4.16 & 5.5.2					
Culvert markers required.		W464				
Stormwater reticulation - hydraulic design, flow rates, M.H, pipe sizes, drop structures & outlet protection	DS4.8 DS5					
Discharge to Council reticulation – existing reticulation capacity check			12.4.1(g) 12.4.3.1			
Construction Loads	DS5.2.6					
Carriageway bedding and backfill. Hard fill trench bedding in roads.		W419				
Bedding and backfill design provided.	DS5.2.6					
Rural stormwater reticulation			12.4.5.4			
Alternative overland flow-paths – show on drawings	DS5.1.2					
Easements required?	DS4.8.3(v) DS5.10 & DS5.1.2(overland flow)		12.4.3.4			
Stormwater Discharge Consents – private land	DS5.1.5					
Regional Council consent required?	DS5.1.5					
Sumps (Catchpits)- spacings, single sump 225mm Class 4 culvert.	DS4.8.3 & 5.5.2	W427 to 430				
Double sump required - end of cul-de-sac, gradients greater than 12%, sag curves. 300mm Class 4 culvert.	DS4.8.3(i)					
Manholes – location, spacing, falls min 20mm plus 0.5mm per degree of angle. For pipe diameter changes soffit of pipes to be level. Check diameter required, 1050 to maximum 675 dia. pipe.	DS5.2.1(iv) & 5.2.4	W501 to 516				

Item	Development Code Sections	Drawing No.	District Plan Rule or other	Yes – considered and included in design report/drawings. Tick boxes below	Not applicable. Tick boxes below	Comments
Rodding eyes when 2 lots served.		W538 to W542.				
Scour blocks for pipe grades 15 – 35% Specific design for >35%	DS5.2.6	W644				
Inlet/Outlet structures	DS5.5.1	W524				
Aluminium & galvinised culvert - corrosion protection details required						
Property connections, located at low point in allotment and connect to manhole if with 5.0m. Specific approval to discharge to sump.	DS5.4.1	W531 to W544				
Detention / Treatment Ponds hydraulic / geotechnical assessment and maintenance access requirements.	DS5.6					
Open water courses	DS5.2.7					
Sanitary Sewer						
Sewer hydraulic design, pipe size, grades, min covers.	DS6.1					
Min pipe gradients for mains, 0.55% for 150mm, 0.33% for 225mm and 0.25% for 300mm.	DS6.1.4					
Discharge into Council sewer – check existing sewer capacity.	DS6.1(iii)		12.4.1(g) 12.4.3.1			
Septic tanks (usually not permitted in urban areas)			12.3.8(l), 12.4.6.3 & 12.4.6.5			
Carriageways - Minimum cover 900mm or manufacturer's certification required.	DS6.2.6					
Private property min 600mm max 3m or specific design required.	DS6.2.6					
Carriageways and Road reserves – 8.2t axle load. Bedding and backfill design provided.	DS6.2.6					

Item	Development Code Sections	Drawing No.	District Plan Rule or other	Yes – considered and included in design report/drawings. Tick boxes below	Not applicable. Tick boxes below	Comments
Construction loads on whole site should also be accounted for as for stormwater.						
Carriageway bedding and backfill. Hard fill trench bedding in roads.		W419				
Identify any lots where gravity sewer connection is not possible						
Scour blocks for pipe grades 15 – 35% Specific design for >35%	DS6.2.7	W644				
Service connections located at low point in allotment and connect to manhole if with 5.0m.	DS6.3.2 to 6.3.6	W630 to 643				
Note: connections under a road minimum diameter 150mm. Specific backfill required under carriageways	DS6.2.1 Table 6.6	W419				
Rodding Eyes required.	DS6.4.13	W620, 621& 637 to 641				
Min lateral grade 1.67% or 1 in 60		W630				
Manholes – location, spacing etc. Note: Terminal MH required at end of public main. Connections serving 2 lots and cross under a road to be a main and have a terminal manhole.	DS6.4					
Maximum deflections through MH's 120 degrees with internal MH falls 150 degrees with drop structures.	DS6.4.6					
Maximum fall through manhole 0.6m, external drop for all new manholes. Specific approval to internal drops.	DS6.4.7					
Falls through manholes, 0-30 degrees = 30mm, >30-60 degrees	DS6.4.7, Table 4.9.					

Item	Development Code Sections	Drawing No.	District Plan Rule or other	Yes – considered and included in design report/drawings. Tick boxes below	Not applicable. Tick boxes below	Comments
= 50mm, >60-120 degrees = 80mm,						
Effect of Steep grades on MH's, refer to these requirements when the pipe grade is greater than 7% to a manhole.	DS6.4.8					
Wastewater Pumping Stations	DS6.5 & 6.6	W1101 to 1124				
Easements	DS6.1(vi) & DS6.3.4(iii)		12.4.3.4			
Watermain						
Reticulation design and layout incl firefighting where applicable (usually not in rural zones)	DS7					
Connection to Council reticulation - capacity checks	DS7.4.1(ii)					
Fire hydrant locations: max spacing: - 135m Residential - 90m Commercial	DS7.7.1	W713, 714 & 715				
Fire hydrant pressure	DS7.2					
Hydraulic analysis of pipe work based on mains operating pressures.	DS7.4.1					
Valve locations	DS7.8.4	W716 to 721				
Pressure zone dividing valves	DS7.8.5					
Alignment & separation from other services	DS7.4.3 & 7.4.4	W900				
Pipe depths	DS7.4.5					
Rider mains	DS7.5.3 & 7.6	W706				
Lot connections	DS7.10	W727 to 740				
Note: Urban – live connections						

Item	Development Code Sections	Drawing No.	District Plan Rule or other	Yes – considered and included in design report/drawings. Tick boxes below	Not applicable. Tick boxes below	Comments
required						
Rural – dry connections unless otherwise required						
Rural supply – level of service	DS7.2					
-Ridermains in Privateways (> 3 Rural or > 6 Urban lots served)	DS7.10.1					
Anchor/thrust blocks	DS7.9					
Provide all pipe junctions at an enlarged scale.	DS1.15.1(iii)					
Pipe class and bedding design.	DS7.5.1					
Easements	DS7.3 & 7.7.1(vi)		12.4.3.4			
Provide a reference to cleaning, testing and disinfection.	CS7.10					
Power, Telecom & Gas						
Letters are required from relevant authorities to confirm that existing reticulation of adequate capacity is available.			12.3.8(n) & 12.4.8			
Identify if any relocation of existing poles or tie rods is required.						
Street Lighting						
Design in accordance with Code. Drawings, calculations etc required from specialized professionals.	DS8					
Separation to face of kerb 600mm min.	DS8.2.2	W900				
Standard Columns and Lanterns to Auckland Transport approved list.	DS8.3 & Construction section AP8 Streetlighting materials					
Columns require a mowing strip		W802				
Non standard lights may require a peer review at the applicants cost.	DS8.3.1					
Non-standard lights may attract a			12.4.4.5			

Item	Development Code Sections	Drawing No.	District Plan Rule or other	Yes – considered and included in design report/drawings. Tick boxes below	Not applicable. Tick boxes below	Comments
levy payable by the applicant						
Landscaping, Streetscape and Reserves.						
Layout in accordance with Code. Provide a drawing with the street trees, street lighting, roads and vehicle crossings.	DS2, DS1.15.5	W201 to 207 & W900				
Landscaping to roundabout.	DS1.15.1					
Tree/plant species in accordance with Code and approved list	DS2.4 & Appendix 1(refer to construction section- approved products and materials- AP2 & 3					
Details and bollards required to Reserve land.	DS3.2.5	W301, 302.				
Relocating Services						
Ensure that arrangement with the relevant companies has been made.						
Power Supply						
Telecom						
Gas						
Bridge Design	DS4.16					
Regional Council approval required						
Building Consent required						
Box culverts and culverts over 1m diameter subject to building consent.						
TNZ Bridge Manual						
Design to be certified by a CPENG						

Item	Development Code Sections	Drawing No.	District Plan Rule or other	Yes – considered and included in design report/drawings. Tick boxes below	Not applicable. Tick boxes below	Comments
Existing bridges on privateways – CPENG report required						
Private bridges – design loading 0.85 of HN-72						
Scour protection to abutments						
Appropriate signage required for max axle loadings						