CITY OF GOLDCOAST.

Appendix A engineering drawings application checklist

Planning and Environment
Engineering & Environmental Assessment
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Please use BLOCK LETTERS and complete all details in full.

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Application details	
Estate name and stage	
Councils reference file number	
Developer's name	

Consulting engineer details			
Company name			
Contact person			
Postal address			
Phone number		Fax number	
Mobile number		Email	

Property details			
Lot number		Registered plan number	
Property address			
Existing approval number	*(if applicable)*		

Checklist items submitted				
General	Items	_____	or	N/A
Earthworks and roadworks	Items	_____	or	N/A
Stormwater drainage	Items	_____	or	N/A
Miscellaneous	Items	_____	or	N/A

Office use only

Fees			
There is no fee associated with this form.			
Not approved			
Approved subject to minor alterations as shown			
Approved			
Date received		Received by	

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A. General	Yes	N/A
1. Administration		
Application form fully completed		
Approvals and clearances		
• Department of Transport and Main Roads		
• Department of Environment and Heritage Protection		
• Downstream drainage discharge rights		
• Clearance for works through other properties		
• Energex/Telstra		
• Others		
Relevant standard drawings included in application		
Schedule of drawings (submitted) attached		
Any building and construction work costing $150,000.00 or more, the applicant is required under the *Building and Construction Industry (Portable Long Service Leave) Act 1991* to supply evidence of the following.		
Estimated cost of works:	$	
If work is $150,000.00 or more provide one of the following.		
• Payment of levy.		
• Payment of the first instalment of levy.		
• An exemption from payment levy.		
• An exemption from immediate payment of levy.		
2. Compliance with Councils approvals		
Rezoning, consent or other Council approval		
Provisions for adjoining development requirements		
3. RPEQ certification		
All engineering drawings and specifications prepared and signed by a Registered Professional Engineer of Qld		
4. Title block on engineering drawings		
Estate name (if any)		
Stage number (if any)		
Developers name		
Consultants name and address		
Drawing number and sheet number		
Scale with scale bar		
Locality description		
Origin of levels and location of permanent survey marks		
Schedule showing date and nature of amendments		
Drawing title		
Signed design certification by an experienced designer		
5. Locality plan		
North point		
Major roads project		
Adjacent localities		
Development area outlines and shaded or crosshatched		
Scale noted		
6. Layout of stage plan		
Layout of roads		
Approved road names (road number not acceptable)		
Allotment layout		
Lot numbers		
North point		
Access restriction strips		
Stage boundaries clearly shown		
Existing easements		

Appendix A engineering drawings application checklist

B. Earthworks and roadworks	Yes	N/A
1. Earthworks		
a) Drafting – drawings included		
Legend		
Existing and proposed contours		
Cut and fill areas clearly shown		
Road and allotment layout (indicate numbers)		
Approved road names		
Location(s) and level(s) of permanent survey mark(s), reference stations etc used as datum for the works		
b) Design – complies with Councils guidelines		
Maximum cut or fill at boundary of subject land > 500 mm		
No ponding or nuisance created at boundary of subject land		
Batter slopes		
Location and level of retaining walls (if required)		
Defined flood level (if appropriate)		
Flood fill level (if appropriate)		
2. Roadworks drawings		
a) Drafting – drawings included		
Approved road names and road reserve boundaries		
Allotment boundaries, numbers, easements		
Centreline or construction line showing:		
• chainages		
• bearings		
• offsets if construction line is not the centreline of road		
• all intersection points.		
Information for each curve including:		
• tangent point chainages and offsets		
• curve radii		
• arc length		
• tangent length		
• superelevation (if applicable)		
• curve widening (if applicable).		
Kerb lines including:		
• kerb radii (where not parallel to centreline)		
• tangent point chainages (where not parallel to centreline).		
Edge of pavement where no kerb is constructed		
Position and extent of channelisation		
Location and details of all traffic signs, guideposts, guardrail, and other road furniture, etc		
Pavement markings		
Catchpit, manhole and pipeline locations		
Drainage details (if applicable)		
Drainage details (if applicable)		
Concrete footpaths and bikeways showing DDA compliance		
Location and details for access points, invert crossings, access ramps		
North point on each plan view		
Changes in surfacing material		
b) Design – complies with Councils design guidelines		
Maximum design speed		
Sight distances		
Horizontal and vertical alignment		
Transit lanes and road tapers		
Parking		

Appendix A engineering drawings application checklist

B. Earthworks and roadworks cont	Yes	N/A
3. Intersection cul-de-sac and speed control devices		
a) Drafting – drawings included		
Kerb levels		
Access ramp locations		
Finished design contours		
Channelisation details including setout details, radii, etc		
Location of traffic signs, guideposts		
Visibility benching (if applicable)		
Ducting for future signals (if applicable)		
Linemarking (linemarking and signage may be shown on a separate plan)		
Speed control device details (if necessary)		
Details of construction methods for surfacing other than asphalt or sprayed bitumen		
Design vehicle paths shown for all speed control devices and turnaround areas		
b) Design – complies with Councils design guidelines		
Layout/configuration		
Contours/crossfall		
Minimum kerb and channel fall		
Design vehicle paths and clearances		
Councils garbage truck manoeuvring		
Parking requirements		
Sight distances		
Roundabouts		
Access ramps at all turnouts at intersections where barrier kerb and channel is required		
4. Road longitudinal sections		
a) Drafting – drawings included		
Approved road names		
Chainages on centreline (and construction line if used)		
Existing surface peg levels		
Design road centreline levels		
Design grades		
Length and radii of vertical curves		
Chainage and levels at grade intersection points		
Chainage and levels at vertical curve tangent points		
Cut and/or fill depths		
Horizontal radii and tangent point chainage		
Kerb levels		
Approved road names, centrelines and IP chainage of intersecting (side) roads		
b) Design – complies with Councils design guidelines		
Maximum grades		
Sight distance		
Minimum grade		
Change in grades without VC		
Crest and sag curves		

Appendix A engineering drawings application checklist

B. Earthworks and roadworks cont	Yes	N/A
5. Road cross section		
a) Drafting – drawings included		
Approved road names		
Road reserve boundaries		
Road centreline or construction line		
Original natural surface line profile		
Constructed cross section profile		
Chainage on centreline or construction line together with natural surface level or peg level		
Offset to road centreline from peg line or construction line		
Cross fall batter slopes and dimensions where these differ to that shown on the type cross section		
Pavement depths wherever these differ from typical cross section		
b) Typical cross section shown for each road containing		
Road reserve width		
Road width between nominal kerb line, or pavement width where no kerb is constructed		
Verge, footpath width		
Location and width of concrete footpath or bikeway, where required		
Kerb and channel type		
Crossfalls and/or grades of pavement, footpaths and batters, etc with offsets to change of grade point		
Type and thickness of wearing surfacing		
Total depth of pavement courses with CBR values of material used (if available)		
c) Design – complies with Councils design guidelines		
Typical cross sections and includes:		
• Width for transit lands and bikeways		
• Typical footpath verge widths		
Access grades/limits to lots		
Road crossfalls		
Formation batter slope stability and scour protection		

C. Stormwater drainage	Yes	N/A
1. Stormwater drainage catchment plan		
Northpoint		
Approved road names		
Existing and proposed property and road boundaries		
All catchments/sub catchments designated as per drainage calculation sheet		
Catchment/sub catchment boundaries indicated by a bold line		
Existing and proposed contours at a suitable interval (in different line types)		
Direction of watershed along the flow path giving the longest time of concentration		
Stormwater reticulation schematic layout shown including manhole, inlet and outlet numbers (for urban catchments)		
All internal and external catchments shown to scale		
2. Stormwater drainage detail plan		
Details of pipe junctions in manholes, where pipe centrelines are offset from centre point of manhole		
Full details including reinforcing of non-standard manholes		
Catchpit and filed inlet locations (chainage, offset levels, etc)		
Manhole locations (chainage, offset levels, etc)		
Invert levels and diameters of pipe connections from catchpits to manholes		
Approved road names		
Class of pipe checked		

Appendix A engineering drawings application checklist

C. Stormwater drainage cont	Yes	N/A
3. Roof water/inter-allotment drainage		
a) Drafting – layout plan contains		
Legend		
All allotments and allotment numbers		
Existing and finished surface contours		
Location and size of inter-allotment drainage areas		
Location and size of stormwater drainage to which system is connected		
Label inter-allotment pits and receiving stormwater structures		
Pit or inlet locations, surface levels and inlet/outlet invert levels		
Required easements		
Details of connections to kerb and channel (if appropriate)		
b) Design – complies with Councils guidelines		
Pipe sizes and pipe materials		
Cover		
Grades		
4. Drainage longitudinal sections		
a) Catchpit connection details (may be in table form)		
b) Longitudinal section for each line containing		
Chainages		
Existing natural surface levels and design finished surface levels		
Manhole and endwall chainages together with surface levels and inlet and outlet invert levels		
Distances between manholes/catchpits/endwalls		
Grade of each pipe section		
Diameter and class and material of each pipe section (eg. marine class)		
Hydraulic grade line and levels, design storm frequency		
Drainline and manhole number		
Manhole diameters and/or reference to separate detail drawing		
Road names where applicable		
Open drain details		
c) Open drains		
Cross sections at each peg chainage (usually 20 m intervals)		
Details of drop structures, energy dissipators, etc (including top view, section views etc.)		
d) Design – complies with Councils design guidelines		
Batter slope/stability		
Scour velocities		
Maintenance criteria		
5. Stormwater drainage calculations		
a) Calculation table		
Stormwater calculations must be submitted for the design storms on an A1 spread sheet, preferably Councils standard stormwater drainage calculation sheet.		
b) Design – complies with Councils design manual		
Legal point of discharge identified		
Downstream drainage approvals		
Unflooded widths		
Calculations provided for major and minor systems		
Blockage factors to catchpits for major systems		

Appendix A engineering drawings application checklist

C. Stormwater drainage cont		
6. Detention basin details	**Yes**	**N/A**
a) Drawings contain		
Plan view		
Sectional views		
Details of basin wall construction		
Details of outlet structures (low and high level outlets)		
Extent of any permanent storage		
Maximum storage level		
Extent and nature of any landscaping		
b) Design – Complies with Councils guidelines and QUDM		
Affect on runoff hydrograph for catchment checked		
Batter slopes		
Minor flood levels		
Maximum flooded depth		
Inlets and outlets		
Scour protection		
Base slopes/crossfall for active recreation use		
High level outlet		
Earthworks		
7. Water quality site management/runoff control works		
Plan layout/extent		
Site's existing topography		
How and when it will be altered		
Typical device details/materials for erosion and sediment control measures proposed		
Temporary and permanent works indicated		
Catchment boundaries and direction on flow for different drainage areas before and after development		
Design complies with **QUDM Section 9.03.5**		
8. Gross pollutant traps		
Plan layout		
Long section and cross sections		
Structural elements detailed		
All materials specified/indicated		