



**FORM A - SUBDIVISION DEVELOPMENT APPLICATION
NEW APPLICATION / VARIATION**

DEVELOPMENT PERMIT:

TYPE OF WORKS:

DEVELOPMENT ADDRESS:

DEVELOPER

Address:	Fax:
Tel:	Email:
CONSULTANT	
Address:	Fax:
Tel:	Email:

The following Plans and Specifications are submitted herewith for **comment / approval** together with other information and Development Application items required. See Form C – Civil Design Approval Checklist:

Plans Nos (including Amendment Numbers)

The design conforms with the requirements of Councils Subdivision and Development Guidelines and all items required for the submission are attached.

Developer's Consultant **Signed** _____ **Date** _____

ATTACHED

- Development Permit
- Civil Drawings
- Landscape / Landscape Concept Drawings
- Civil Specifications
- Landscape Specifications
- Civil Design Report
- Approvals from Other Authorities
- Development Application and Design Approval Fees
- Estimate of Costs
- Drainage Calculations and Plans
- Certifications
- Any other items required, i.e., structural drawings, certifications and computations



CIVIL DESIGN APPROVAL CHECKLIST

For Internal Council Use as well as Consultant / Developer Use

PROJECT: _____ **SUBMISSION – Rev 1, 2, 3, 4, 5**

CONSULTANT: _____ **DATE SUBMITTED / /**

- Initial Design Discussions with Council
- Design Submission to Council for Comment / Approval. The following items are to be submitted:

DOCUMENTS

- Proof of Appointment to Act for the Developer
- Copy of relevant Agreements and supporting documentation if development is to be carried out on Crown Land
- Copy of current Development Permit(s)
- Copy of Permission to Carry out Works on Other’s Land
- Executed Development Application Form (together with Application Fee)
- Design Plans including Landscape design or Concept Landscape Design
- Civil Design Reports and Landscape Design Report / Concept Design Statement
- Drainage calculations and plans
- Pavement design calculations
- Geotechnical and Soil Types Report
- Proposed Subdivision Plan
- Approvals from Other Authorities
- Estimate of Cost for Construction of Works
- Specification and Standard Drawings for Civil Works
- Calculation Document, Specification and Details for Stormwater Management and Erosion Control Works
- Necessary certifications
- Any other items required, i.e., Structural drawings and computations, etc.
- Copy of appropriate Public Risk Insurance

PLANS

All plans must be signed as **Checked** and **Approved** by the appropriately qualified person. One electronic and two A3 copies are required as a minimum.

- Concept Landscape and Irrigation Drawings if Detail Drawings not finalised
- Stormwater Management and Erosion Control Drawings
- Structural Drawings if required, ie, retaining walls, fences, footings, etc
- Civil Drawings made up as follows:
 - Site Works
 - Services
 - Roadwork & Drainage & Subsoil Drainage Layout
 - Roadworks Longitudinal and Cross Sections
 - Drainage Longitudinal Sections
 - Intersection, Bends, and Court Details
 - Typical Sections, General Notes, Locality Plan
 - Footpath Layout
 - Any other relevant drawings

PAYMENTS

- Design Approval Fee as per Council Fees and Charges)
- Development Application Fee (together with executed Application Form)

CHECKED **DATE CHECKED / /**



FORM B – DECLARATION OF WORKS

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL (GST incl.)
1.	MISCELLANEOUS				
2.	PROVISIONS FOR TRAFFIC				
3.	CLEARING AND GRUBBING				
4.	EARTHWORKS				
5.	DRAINAGE WORKS AND PROTECTION WORKS				
6.	PAVEMENT AND SHOULDERS				
7.	SPRAY & SEALING				
8.	ROAD FURNITURE				
9.	CONCRETE WORKS				

TOTAL \$ (GST Included)

The Following Items must be included in the Schedule of Works:

ITEM 1: MISCELLANEOUS

- Establishment (mobilization and Demobilization) – Rates to be provided in “\$/Item”
- Project notices – Rates to be provided in “\$/Item”
- Infrastructure protection works – Rates to be provided in “\$/Item”

ITEM 2: PROVISION FOR TRAFFIC

- Traffic Management plan – Rates to be provided in “\$/Item”
- Detours – Rates to be provided in “\$/Item”
- Access to adjacent properties – Rates to be provided in “\$/Item”
- Traffic guidance – Rates to be provided in “\$/Item”
- Traffic control devices – Rates to be provided in “\$/Item”
- Maintenance – Rates to be provided in “\$/Item”
- Restoration – Rates to be provided in “\$/Item”

ITEM 3: CLEARING, GRUBBING AND REHABILITATION

- Removing of vegetation – Rates to be provided in “\$/Item”
- Stripping and stockpiling – Rates to be provided in “\$/Item”
- Top soil respreading – Rates to be provided in “\$/Item”
- Removing of debris, old surfaces such as drainage structures, old surfaces and other obstacles
- Reinstatement and clean up – Rates to be provided in “\$/Item”

ITEM 4: EARTHWORKS

- Earthworks in cut – Rates to be expressed in \$/m³
- Earthworks in fill – Rates to be expressed in \$ /m³
- Preparation and Maintenance of a sub-grade – Rates to be expressed in \$/m²
- Table drains turnout – Rates to be expressed in number of these Items

ITEM 5: DRAINAGE WORKS & PROTECTION WORKS

- Installation of culverts – Rates to be expressed in “\$ /Linear metre” according to the size of the culvert.
- Floodways – Rates to be expressed in “\$ / Linear metre”
- Headwalls / Wing walls – Rates to be expressed in number of these Items
- Drop structures – Rates to be expressed in number of these Items
- Reno mattresses – Rates to be expressed in number of these Items

ITEM 6: PAVEMENTS AND SHOULDERS

- Gravel Base – Rates to be expressed in “\$/m²”
- Sub-base – Rates to be expressed in “\$/m²”
- Stabilization – Rates to be expressed in “\$/m²”
- Trimming and Curing – Rates to be expressed in “\$/m²”



ITEM 7: SPRAY SEALING

- Preparation of pavement – Rates to be expressed in “\$/m²”
- Prime Coat (Application rate must be specified Lt/m²) – Rate to be expressed in “\$/Litres”
- Seal Coat (Application rate must be specified Lt/m²) – Rate to be expressed in “\$/Litres”
- Second Seal Coat (Application rate must be specified Lt/m²) – Rate to be expressed in “\$/Litres”
- Aggregate per each type (Application rate must be specified m²/m³) – Rate to be expressed in “\$/m²”

ITEM 8: ROAD FURNITURE

- Road signs - Rate to be expressed in “\$/Item”
- Guideposts - Rate to be expressed in “\$/Item”
- RRPM’s - Rate to be expressed in “\$/Item”
- Line marking per each kind – Rate to be expressed in “\$/m”

ITEM 9: CONCRETE WORKS

- Head-walls and Wing-walls - Rate to be expressed in “\$/m²”
- Floodways - Rate to be expressed in “\$/m²”
- Concrete Inverts - Rate to be expressed in “\$/m²”
- Drop Structures - Rate to be expressed in “\$/Item”

Prepared by DATE / /

FORM C – HOLD POINTS ROADS AND OPEN DRAINAGE

The developer must give written notice to Council with 48 hours in advance to council@lsc.nt.gov.au (Attention Planning Department).

The notice **MUST INCLUDE:**

- 1) Required test results (see table 2. REQUIREMENTS TO COMPLY)
- 2) Declaration of the qualified engineer representing the owner of the land
- 3) DP number, Section, Address of the development

1. HOLD POINTS

Item	HOLD POINT	INSPECTION
1	Before commencement of clearing	Significant vegetation, site office location, haulage routes, ESC measures
2	After stormwater pipes and culvert laid and jointing, prior backfilling	Soil type, bedding material, pipe condition, CCTV inspection if deemed necessary
3	After subsoil drainage laid, before backfilling	Soil type, bedding material, pipe condition
4	Prior to place sub-base	Subgrade Compaction
5	After road sub-base construction	Grades, vegetation, stormwater catchment, ESC.
6	Prior to place the road base course.	Sub grade Inspection – Compaction / Formation
7	Prior the surface is ready for asphalt / sealing laying (including tack coat).	Grades, surface quality, kerb levels
8	Before tree planting	Tree quality, maturity, locations

2. REQUIREMENTS TO COMPLY

Item	Elements of Work	Consultant's Responsibility	Council's Responsibility
R1	PRE-START MEETING	See Prestart meeting requirements.	See Prestart meeting requirements.
R2	CLEARING	Ensure all environmental plans are in place, including location of haulage routes	HOLD POINT – inspection required prior to earthworks commencing
R3	EARTHWORKS <i>Material Quality</i> <i>Compaction</i> <i>Levels</i>	Level of supervision to be determined by consulting engineer but minimum Level 2 in accordance with AS 3798 to apply. Examine and assess all test results and levels and report to Officer	Visit site for random audit inspection.

Item	Elements of Work	Consultant's Responsibility	Council's Responsibility
R4	ROAD EMBANKMENT Material Quality Compaction	Make routine visits. Examine and assess all test results and levels.	Visit site for random audit inspections.
R5	SUBGRADE <i>Compaction</i> <i>CBR Tests</i> <i>Horizontal Alignment</i> <i>Vertical Alignment</i> <i>Cross fall</i>	Make routine visits. Attend during proof rolling. Examine and assess all test results and cross section geometry. Certify adequacy designed pavement/or submit new pavement design for approval.	Visit site for random audit inspections. Inspection and attend proof rolling.
R6	SUBGRADE REPLACEMENT <i>Material Quality</i> <i>Compaction</i> <i>Profile and Depth</i>	Make sufficient routine visits to assess quality of materials and that operations will achieve a sound compacted layer. Attend proof rolling. Examine and assess all test results.	Visit site for random audit inspections. Inspection and attend proof rolling.
R7	SUB-BASE LAYER <i>Material Quality AS1289</i> <i>Compaction</i> <i>Pavement Depth</i> <i>Horizontal Alignment</i> <i>Vertical Alignment</i>	Make routine visits. Examine and assess all test results. Attend proof rolling	Visit site for random inspections. HOLD POINT – inspection required prior to base course construction
R8	BASE COURSE LAYER <i>Material Quality AS1289</i> <i>By NTTM 216.1</i> <i>By WA312.1</i> <i>AS1289</i> <i>Compaction Test</i> <i>Pavement Depth</i> <i>Horizontal Alignment</i> <i>Vertical Alignment</i>	Make routine visits. Attend proof rolling. Examine and assess all test results and report to Officer.	Visit site for random inspections. Inspection and attend proof rolling.
R9	KERB AND GUTTER <i>Concrete - Slump, Strength</i> <i>Horizontal Alignment</i> <i>Vertical Alignment</i> <i>Kerb Transition</i>	Inspect prior to kerb placement and completed kerb. Examine and assess all test results and level. Inspect with straight edge.	Visit site for random inspections. Attend water test.

Item	Elements of Work	Consultant's Responsibility	Council's Responsibility
R10	SUB SOIL DRAINAGE <i>Material Quality</i> <i>Location</i> <i>Surface and Invert Level</i> <i>Construction</i>	Make random audit inspections of Contractors performance	Visit site for random inspections. HOLD POINT – inspection required prior to backfilling
R11	SURFACING – ASPHALT <i>Material Quality</i> <i>Aggregate By AS1141</i> <i>By NSW t239</i> <i>Bitumen By AS 1141</i> <i>NTTM 305.1</i> <i>NTTM 304.1</i> <i>Compaction Thickness</i> <i>Horizontal Alignment</i> <i>Profile</i>	Undertake an inspection prior to commencement of laying operation. Examine and assess all test results and report to Council.	Visit site for random inspections. HOLD POINT – inspection prior to tack coat.
R12	STORMWATER DRAINAGE <i>Material Quality</i> <i>Culverts By AS1597</i> <i>Bedding</i> <i>Reinforcement</i> <i>Concrete - Slump, Strength</i> <i>Location</i> <i>Surface and Invert Level</i> <i>Construction</i> <i>Drainage Lines</i> <i>(Underground)</i> <i>Horizontal Alignment</i> <i>Vertical Alignment</i> <i>Backfilling</i>	Inspection of pipes and bedding prior to installation. Make sufficient visits to assess compliance with specification. View progress and works. For structural pours inspect prior to placing concrete. Examine and assess all test results and level.	Visit site for random inspection. HOLD POINT – inspection required prior to backfilling Internal pipe survey with CCTV will be arranged if deemed necessary.
R13	ROAD CROSSING CONDUITS <i>Location</i> <i>Backfilling</i> <i>Markers</i>	Make random audit inspections of Contractors performance prior to backfill	Visit site for random inspection
R14	TOPSOIL AND GRASS	Confirm all affected areas are topsoiled, grassed and maintained.	Visit site for inspection.
R15	EROSION, SEDIMENTATION AND WATER QUALITY CONTROL MEASURES	Ensure implementation and continuous maintenance of relevant plans.	Visit site for random inspection.
R16	ALL WORKS PRIOR TO ON-MAINTENANCE	Confirm all works comply with design intent before arranging “ON Maintenance” inspection. Complete the “ON Maintenance” inspection checklist prior to joint inspection with Council.	Joint “ON Maintenance” inspection with Consulting Engineer and notify requirements, if any.



Item	Elements of Work	Consultant's Responsibility	Council's Responsibility
R17	PRIOR TO ACCEPTANCE "ON-MAINTENANCE"	<p>Forward "As Constructed" submission to Council.</p> <p>Ensure Licensed Surveyors certificate is attached and also attach Engineers Certification.</p> <p>Finalise all other Documentation in accordance with Section 1.</p>	<p>Council to accept and conduct Audit checks of As Constructed Drawings and advise any requirements.</p> <p>When complete advise in writing of acceptance of "ON Maintenance".</p>
R18	DURING MAINTENANCE PERIOD	<p>Confirm all minor omissions and defects have received suitable attention.</p> <p>Examine and approve site prior to asking for "Off Maintenance" Inspection.</p>	<p>Council to advise Consulting Engineer of any defects.</p>
R19	PRIOR TO ACCEPTANCE "OFF MAINTENANCE"	<p>Accompany Council Inspector and to note any requirements.</p>	<p>Council Inspector to accompany Consulting Engineer and Contractor to advise of any requirements.</p> <p>When complete, advise in writing of acceptance of "OFF Maintenance".</p>

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FORM D – DRIVEWAYS / UNDERGROUND DRAINAGE

The developer must give written notice to Council with 48 hours in advance to council@lsc.nt.gov.au (Attention Planning Department).

The notice **MUST INCLUDE:**

- 1) Declaration of the qualified engineer representing the owner of the land
- 2) DP number, Section, Address of the development

1. HOLD POINTS

Item	HOLD POINT	INSPECTION
1	After stormwater pipes and culvert laid and jointing, prior backfilling	Soil type, bedding material, pipe condition.
2	After subsoil drainage laid, before backfilling	Soil type, bedding material, pipe condition
3	Prior plastic - reinforcing	Compaction, grades, surface quality, kerb levels
4	Prior the surface is ready for laying asphalt / sealing / pouring concrete (including tack coat).	Grades, surface quality, kerb levels

2. REQUIREMENTS TO COMPLY

Item	Elements of Work	Consultant's Responsibility	Council's Responsibility
R1	<p>SUBGRADE <i>Compaction of subgrade to a depth of 150mm at 95% MMDD, SL72 Reinforcement</i></p> <p>Urban or Rural</p> <ul style="list-style-type: none"> • 100mm Thickness for Residential Driveways • 200 mm thickness for Industrial Driveways <p>Rural - Residential Minimum Prime and single seal 14mm aggregate over 150mm Sub-base material</p>	<p>Make routine visits. Certify compaction for approval Grades, surface quality, kerb levels.</p>	<p>Visit site for random audit inspections.</p>



Item	Elements of Work	Consultant's Responsibility	Council's Responsibility
R2	<p>STORMWATER DRAINAGE</p> <p><i>Material Quality</i></p> <p><i>Culverts By AS1597</i></p> <p><i>Bedding, Reinforcement, Concrete - Slump, Strength, Location, Surface and Invert Level</i></p> <p><i>Construction, Drainage Lines (Underground)</i></p> <p><i>Horizontal Alignment, Vertical Alignment</i></p> <p><i>Backfilling</i></p>	<p>Inspection of pipes and bedding prior to installation. Make sufficient visits to assess compliance with specification.</p> <p>View progress and works.</p> <p>For structural pours inspect prior to placing concrete.</p> <p>Examine and assess all test results and level.</p>	<p>Visit site for random inspection.</p> <p>HOLD POINT – inspection required prior to backfilling</p>
R3	<p>TOPSOIL AND GRASS</p>	<p>Confirm all affected areas are topsoiled, grassed and maintained.</p>	<p>Visit site for inspection.</p>
R4	<p>EROSION, SEDIMENTATION AND WATER QUALITY CONTROL MEASURES</p>	<p>Ensure implementation and continuous maintenance of relevant plans.</p>	<p>Visit site for random inspection.</p>

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**FORM E - DEVELOPMENT APPLICATION
ON MAINTENANCE CERTIFICATE CHECKLIST No**

DEVELOPMENT PERMIT:

CONSULTANT / OWNER:

DEVELOPMENT ADDRESS:

APPLICATION DATE / / **INSPECTION DATE** / /

- Application for Works to be Placed on Maintenance
- Application for works to be placed off maintenance
- Bond Application for outstanding Works to Council
- Confirmation of Outstanding Works or other Security Bonds and Fee Details
- Submission of Certification of works
 - Roads and Drains
 - Landscape / Irrigation
 - Structural
 - Other Authorities
 - Other
- Submission of As Constructed Drawings
 - Hard Copy
 - Digital (PDF and Autocad)
- Submission of Clearances
 - Private Owners
 - Other Authorities
- Submission of Test Results and Reports
- Submission of Cadastral Survey Plan with Final Easement Details
- Submission of completed electronic Asset Register Forms
- Submission of
 - Maintenance Bond
 - Construction Approval Fee
 - Outstanding Works or other Security Bonds
 - Footpath, Crossover and Driveway Payment
- On Maintenance Certificate Checklist Compliance
- OFF Maintenance Certificate Compliance

CHECKED

DATE CERTIFICATE ISSUED / /



All test results, inspections, certifications, as constructed drawings and clearances in place. The Works have been visually inspected and the following constructed to approved drawings and satisfactory standards:

1. PERMITS

- Has the Permit to Work Within a Road Reserve (PWWARR) being submitted and approved by Council?
- Are the Conditions of the PWWARR being met?

2. ALLOTMENTS

- Pegged;
- Lots graded to minimum design levels;
- Lots grassed;
- Soil and stormwater management in place.

3. ALLOTMENT DRAINAGE

- Catch drains – location, profile, line, level, outlet with erosion control;
- Field inlets – location and property drain and sub soil drain connection provided;
- Overland flow path including Q100 open drains – profile, line, level, grassing established, erosion control, concrete lining;
- Pipe work – size, line, level;
- Soil and stormwater management in place.

4. STORMWATER DRAINAGE SYSTEM

- Compliance with acceptable criteria of conduit inspection cond.
- Pipe/Drainage layout – size, line, level, location;
- Gully pits and manholes to correct standards – transitions;
- Covers – good order, level, grade;
- End walls, headwalls and outlet structures – erosion control, free from scour and siltation;
- All connections to pits mortared flush, all walls smooth mortared flush, no reinforcement projections;
- All step irons, rungs, ladders, cages in position;
- Open cut channels – profile, line, level, grassing, erosion control measures;
- Overland flow – clear of obstruction, profile, line, level, grassing established, concrete lining, erosion control;
- Sub soil drainage connections to pits, flush points, discharges to gullies or other approved outlet;
- Grassing to swales, outlets, inlets, allotments, batters;
- Soil and stormwater management in place.

5. EARTHWORKS

- Retaining walls located clear of road reserves;
- Batter slopes stabilised, free from erosion;
- All disturbed areas grassed, free from erosion;
- Soil and stormwater management in place;
- Compaction test results, inspection records, certifications.

6. ROAD SURFACING

- Hot mix wearing course sound in appearance and showing no signs of cracking, blemishes, erosion and oxidation;
- Bitumen seal sound in appearance, no blemishes, adequate aggregate cover, no bitumen bleeding through surface, excess aggregate removed from site.
- Joints are flush;
- Kerbs and pavements free of overspray, splashes and marks;
- Final profile is regular, crowns correctly located, no obvious high points, hollows, low points and ponding of water;
- Joints with concrete works are sound and to the correct level. No gaps for water intrusion.

7. CONCRETE KERBS, KERB & CHANNEL, MEDIANS AND ISLANDS

- Correct type and profile;
- Laid to true line and level;
- Finish is smooth, hard, sound and durable in appearance, free from bumps, rain damage, erosion, irregularities, surface blemishes, cracking, equipment grazes and marks and chipped and broken joints;
- Ponding of stormwater does not occur;
- Transitions to existing work and gully pits are smooth, regular, correct length;
- Service markers have been placed to the kerb face;
- Lip and back of kerb are flush with road surface, footpaths and verges;
- All channelisation works and medians completed – signage, markers, pavement marking and traffic measures;
- Subsoil drains and flushing points to medians and islands;

8. FOOTPATHS, BIKEWAYS AND PAVING INCLUDING INTERLOCKING AND OTHER

- Finish is appropriate to use, hard, sound and durable in appearance, free from bumps, rain damage, erosion, irregularities, surface blemishes, cracking, marks, chipping and broken joints;
- True to line and level width;
- Jointing as required, expansion joints provided;
- Concrete appropriately cured;
- Pram ramps as per access requirements and plans;
- Safety rails, hardware, pavement marking and signs installed.

9. STREETScape, LANDSCAPE, PARKS, FENCING AND FEATURES

- All turfing, grassing, weed control, tree planting, bollards, drainage, irrigation and other works as necessary to approval of the Officer.
- Erosion and stormwater management in place;
- All fences other than approved entrance structures have been constructed within allotments;
- Entrance features have planning and building approvals and certifications;
- Approvals from manufacturers and submission of guarantees, warranties.
- Grass on verges and allotments to be less than 100mm and 200mm height respectively.
- Installation of playgrounds to Australian Standards as inspected by the Officer
- Structural certifications;
- Childproof fencing;
- Approvals from other authorities and other trades and disciplines.



FORM F – OFF MAINTENANCE PROCEDURE CHECK LIST

For Internal Council Use as well as Consultant / Developer Use

DEVELOPMENT PERMIT: _____

CONSULTANT / OWNER: _____

DEVELOPMENT ADDRESS: _____

DATE REQUEST SUBMITTED / /

Request from Developer for Off Maintenance Inspection and Return of Security(s).

INSPECTION DATE / /

DATE MAINTENANCE CERTIFICATE ISSUED / /

COMMENTS

DRAFT

OFF MAINTENANCE SITE INSPECTION CHECKLIST

All further test results, inspections, certifications, as constructed drawings and clearances in place. The works have been visually inspected and are satisfactory allowing for normal wear and tear. The requirements are as follows but not limited to:

1. EARTHWORKS, SITEWORKS & ALLOTMENTS: Those still in the title of the Developer.

- Lots grassed, batter slopes established;
- Soil and stormwater management still in place.

2. STORMWATER DRAINAGE SYSTEM

- All pits, manholes and drainage structures in good condition;
- All covers, lintels and frames free from damage;
- Erosion control at outlets and open drains free from erosion, siltation and scour;
- All pits, pipes and culverts free from obstruction, siltation;
- Erosion and stormwater management still in place and adequately maintained.

3. ROAD PAVEMENTS AND SURFACING

- Hot mix wearing course / bitumen seal, sound in appearance, no cracking, blemishes, erosion and oxidation;
- Joints are flush, no signs of cracking, rutting or other types of failures;
- Surfaces are still straight and true to line and level, no low points and ponding of water.

4. CONCRETE AND INTERLOCKING PAVING, KERBS, KERB & CHANNEL, MEDIANS AND ISLANDS

- Finish is still hard, sound, durable, smooth, unblemished, no cracking, chipping of joints and pavers, free from erosion and rain damage;
- Surfaces are still straight and true to line and level, drain well, no ponding of water;
- Lip of kerb is still flush with road surface, no gap between kerb and pavement;
- All siltation cleaned out of kerb and channel etc.

5. STREETScape, PARKS, LANDSCAPE, FENCING AND OTHER FEATURES

- Inspections have been carried out with Council's Parks section;
- All plants, shrubs, trees, grassed areas well maintained and in good healthy condition;
- All grassed areas, verges, under surfaces to playgrounds, etc draining well;
- All structures and equipment well maintained, free from rust and blemishes, structurally sound;
- All under surfaces to playgrounds in good order;
- All irrigation systems in full working order and where necessary, controllers on line and functioning.

6. OTHER

- All clearances from Other Authorities and Others received;
- All pit, valve, manhole, service boxes to correct levels and slopes, no obstructions in verges, grassed areas, etc;
- Line marking re-marked where necessary.
- Street name and other signs still in place



DESCRIPTION OF THE PROCESS USED TO CARRIED OUT THE INSPECTIONS

- 1. EARTHWORKS, SITEWORKS & ALLOTMENTS**

- 2. STORMWATER DRAINAGE SYSTEM**

- 3. ROAD PAVEMENTS AND SURFACING**

- 4. CONCRETE AND INTERLOCKING PAVING, KERBS, KERB & CHANNEL, MEDIANS AND ISLANDS**

- 5. STREETScape, PARKS, LANDSCAPE, FENCING AND OTHER FEATURES**

- 6. OTHER**

I declare that this inspection has been carried out according to this statement.

Printed Name

Signature

EEA Membership Number



FORM G - BOND APPLICATION FORM FOR OUTSTANDING WORKS / DEFECTS

I, The Contractor / Developer understand that Council requires the works to be completed prior to:

- a) Provide Clearance for the works that has been carried out according to the Conditions of the Development Permit, Council’s Permit to Work within a Road Reserve and/or Litchfield Council Planning – Development Guidelines.

By the submission of this document, I am requesting the Director to allow a bonding in lieu of outstanding works / Defects considering the following details:

1. Development Application Number:

2. Developer:

3. Reasons for this request:

4. Total Amount of the bond: \$

5. Description of the outstanding works

Item	Description	Defect / Condition	Location	Comments

The above declaration of the works has been assessed according to the approved “For Construction” Engineering Drawings of the Development and Requirements of Litchfield Council.



I declare that the above information is a true statement of current status of the development
Identification Number

Signature of the Developer Representative

(Shall be the same person to whom the Development Permit has been issued)

Print Name – Date of the Request

ASSESSMENT – (THIS SECTION IS FOR THE USE OF LITCHFIELD COUNCIL ONLY)

Review:

Date

Name

Recommendation:

Approved

/

Declined



FORM H – INSPECTION REQUEST
(For Developer Use)

1. **PROJECT (Development Permit Number)**.....

2. **DATE REQUEST SUBMITTED** / /

3. **CONSULTANT / OWNER**.....

4. INSPECTION REQUEST

(Please select an item Number from the Table below e.g. ITEM 4 Subgrade Compaction)

5. **PROPOSED INSPECTION DATE (48 Hours Minimum In Advance)** / /

6. The undersigned declares:

Further inspection of the current progress of the project the undersigned advises that the current stage complies with the specifications shown on the approved for construction drawings, therefore I request to Council to carry out a site inspection to the stage specified in item 4 of this form.

Item	HOLD POINT	INSPECTION REQUEST
1	Before commencement of clearing	Significant vegetation, site office location, haulage routes, ESC measures
2	After stormwater pipes and culvert laid and jointing, prior backfilling	Soil type, bedding material, pipe condition, CCTV inspection if deemed necessary
3	After subsoil drainage laid, before backfilling	Soil type, bedding material, pipe condition
4	Prior to place sub-base	Subgrade Compaction
5	After road sub-base construction	Grades, vegetation, stormwater catchment, ESC.
6	Prior to place the road base course.	Sub grade Inspection – Compaction / Formation
7	Prior the surface is ready for asphalt / sealing laying (including tack coat).	Grades, surface quality, kerb levels
8	Before tree planting	Tree quality, maturity, locations
9	After stormwater pipes and culvert laid and jointing, prior backfilling	Soil type, bedding material, pipe condition.
10	After subsoil drainage laid, before backfilling	Soil type, bedding material, pipe condition
11	Prior plastic - reinforcing	Compaction, grades, surface quality, kerb levels
12	Prior the surface is ready for laying asphalt / sealing / pouring concrete (including tack coat).	Grades, surface quality, kerb levels

Name (Developer or Representative)

Signature



This Section is for Council Use Only

Observations

Lined area for observations with a large diagonal 'DRAFT' watermark.

Inspection Date:

Name:

Signature



FORM I - WORKS PERMIT

TO CARRY OUT WORK WITHIN COUNCIL'S ROAD RESERVES AND/OR PROPERTY

DATE OF ISSUE: _____

PERMIT No: _____

1. APPLICANT DETAILS

RECEIPT No: _____

Applicant.....

Company.....

Postal Address.....

Email.....

Phone..... Mobile.....

2. PROPOSED WORKS

Work Address.....

Period of Works From.....To.....

Type of Work

1. Works Related to A Development Permit 2. Work Not related with a Development Permit
 3. Installation / Repair of Services 4. Other

Description of Works

WORKS BEING UNDERTAKEN FOR

As Above

Name.....

Address.....

Phone..... Fax.....

Note: The applicant has read and agrees to undertake and abide by the Conditions of Approval attached to this document and any special conditions placed on the permit. **Queries to (08) 89830600, council@lsc.nt.gov.au**

Special Conditions:

Signature of Applicant.....**Date**/...../.....

Privacy Statement. The information requested within this form is being collected by the Council for the purpose of, approval of works under Litchfield Council jurisdiction and among other things providing appropriate services to Ratepayers, carrying out functions and for compiling or report statistics. If you do not provide the information Council may not be able to approve your application. The Council will not disclose the information provided by you on this form except to Government Bodies.



TOTAL	\$
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OFFICE USE ONLY

Yes No

Authorised Officer Name/Signature

.....

Date...../...../.....

CONDITIONS OF APPROVAL FOR WORKS PERMIT

This document deals with any works that require the use of Council land for access to services, private property or for any other reason, to carry out works. Fees and charges will apply to all permits and can be viewed online at <http://www.litchfield.nt.gov.au>

At all times it is accepted that the Applicant / Permit Holder is fully aware of Council’s standard requirements, and any other conditions specific to the job being applied for.

General

- A - It is the responsibility of the applicant to provide a minimum of 5 working days notice to Council to enable appropriate decisions to be made.
- B - The submission must clearly state the type of works being carried out and include all attachments. A plan showing location of the works, depths, and offsets in respect to the road, drains, and fence line is to be provided to Council.
- C - Should the Developer / Contractor seeks to install / relocate services, Council will require the “for Construction Drawings” being approved by the relevant authority prior the commencement of any works (e.g. PowerWater). The Approval must contain the stamp, Name, Signature, and a Contact number of the person conceding the approval.
- D - The issue of the Permit is subject to the standard Conditions of Approval stated on the Permit and any other special terms and conditions associated with works deemed to be necessary and stated by Council.
- E - The Applicant accepts complete responsibility for determining the location of all services and equipment of public authorities in the vicinity of the works described and to take all steps necessary to protect any such equipment and services which may be located within the area. (Dial before you Dig 1100).
 - a. Observance of all necessary safety precautions and requirements relating to the use of signs, barriers, hoardings and warning devices for works in progress currently specified by the Standards Association of Australia, Work Health and Safety and as directed by Council.
- F - Liability insurance for an amount not less than \$5,000,000 in the name of the permit holder and the Litchfield Council will be provided with the Works Permit Application.
- G - Traffic / Pedestrian Management Plan & diagrams shall comply with AS1742.3-2009 and issued by a person with Level 1 Work Zone Traffic Management Accreditation. This plan must be supplied with the written Works Permit for all jobs. All persons setting up and operating traffic control must have Level 2&3 Work Zone Traffic Management Accreditation.
- H - Maintain any works in a condition suitable for the safe and comfortable passage of vehicles and pedestrians at all times until the works are fully reinstated, whether the reinstatement is to be performed by Council or the permit holder.
- I - Council shall at all times be indemnified against claims of all types as a result of actions by the Permit Holder. Permits will be issued to applicants on an individual job basis.
- J - Authorisation is given for the Litchfield Council to deduct from any security deposits, charges incurred by the Council having to perform any reinstatement works or any part thereof for any cause whatsoever.
- K - The permit to access may be revoked if weather conditions do not permit trafficable, vehicular or pedestrian use within any given area.
- L - All security/safety fencing is to clearly identify the contractors name and contact details



- M - Steel plates used to cover exposed trenches are to be skid resistant (checker plate or anti skid paint) and placed at right angles to on coming traffic.
- N - Bitumen surfaces are to be reinstated no longer than 7 days after being opened regardless of progress of works.
- O - Footpath and road reinstatements will be reinstated to a minimum of 1 metre width or for roads a 300mm bridge on each side of the trench using 50mm asphalt.
- P - Concrete reinstatement is to be a minimum 1.5m in width.
- Q - Reinstatements will be determined at the time of the application.
- R - No trees or vegetation on the verge/nature-strip/road reserve are to be damaged in any way, and no trees or vegetation are to be removed without the express permission of Council Officers, and this is to be confirmed in writing on the permit.

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DOCUMENT CONTROL

Issued by: Mike A.

Review:

Date: 20 June 2013

Revision: 1

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GUIDELINES TO WORK WITHIN A ROAD RESERVE (Minor Works)

These Guidelines aim to assist Consultants, Developers, Contractors, and other parties to comply with the requirements of Litchfield Council when undertaking minor works within Council Lands and Reserves. Major works requirements are being addressed in the Subdivision / Development Guidelines.

1. Permit to Work within a Road Reserve - General

Prior to the commencement of any work, the Contractor shall hold a copy of the Approved Permit to work within a Road Reserve at all times.

- » The applicant is responsible to provide a minimum of 5 working days notice to Council to enable appropriate decisions to be made.
- » Approved Traffic / Pedestrian Management Plan shall be in place at all times during the duration of the works.
- » Open excavations are not permitted across the road. Thrust boring is a preferred method. The Director of Works reserves the right to provide exceptional permission under specific site conditions.
- » Please visit <http://www.litchfield.nt.gov.au/index.php?page=council-standard-drawings> to download copies of the Standard Drawings.
- » Where an alteration is required as a direct result of the Works / Development, the Developer will be responsible for all costs associated with the alteration including design, consultation, and physical works.

2. Driveways

Council has specified 2 types of vehicle accesses:

- » Standard vehicle access
- » Industrial vehicle access

For residential properties, Litchfield Council provides a Standard Drawing considering a 5.2m (AS 2890. 1-2004, B99) Vehicle.

Industrial driveways are required anywhere where the likelihood of heavy vehicles using the access is Medium to High. The Designer / Developer shall confirm the width considering the most likely vehicle allowed to use the driveway. The access should be wide enough to enable the design vehicle to remain on the correct lane at all times. The "Austroads Design Vehicle and Turning Path Template's guidelines" should be consulted to confirm the dimensions of the driveway.

3. Drawings Requirements

The following information is the minimum information required on the engineering drawings prior the commencement of works:

- » The offsets from boundaries of the allotment / property and from the road.
- » The presence of reticulated services and the proposal for relocation (if required).
- » The presence of drainage infrastructure (e.g. catchpits, kerbs, inverts, culverts)
- » Driveways

4. Earthworks

- » Earthworks should include considerations for protection of vegetation, placing of stockpiles, vehicle parking areas, dust control, runoff control, pedestrian movements, access restrictions to adjoining properties, etc.
- » New road batters must be stabilized and extended to the boundary of the properties.

- » The topsoil of all disturbed areas should be kept, and reused on those areas to facilitate the re-establishment of vegetation.
- » All batters must be appropriately graded allowing sheets flows preventing mosquito breeding. All topsoil shall remain onsite.
- » Compaction requirements as follows:

5. Backfilling Around Ducts, Pipes, Or Cables

Unless otherwise approved by the Director, all services must be laid at a minimum cover of 350 mm below the footpath surface (or not subject to vehicle loading) and 750 mm below the road surface (or subject to vehicle loading).

Prior to backfill operations, all loose rubbish and foreign material should be removed from the trenches. All open trenches not occupied by permanent work must be backfilled.

Above the level of the sand backfill around ducts, pipes or cables trenches must be backfilled with sand up to the underside of the footpath pavement and compacted in layers no more than 150mm thick using mechanical rammer to 95 percent Modified Density, in accordance with test 5.21 of AS1289. The material used is to be at Optimum Moisture Content (OMC).

Above the level of backfill material, reinstatement of the footpath sub-base is to be constructed Type 3 gravel material. Placement is to be in one 150mm thick layer and compacted to 95% Modified Density in accordance with test 5.2.1 of AS1289

6. Backfilling of Roadway Trench

Above the level of the sand backfill around ducts, pipes, or cables, trenches must be backfilled with sand up to the underside of the road pavement and compacted in layers no more than 150mm thick with mechanical rammers to 95 percent Modified Density (MMDD), in accordance with test 5.2.1 of AS 1289.

The material used is to be at Optimum Moisture Content (OMC).

Above the level of the sand backfill, reinstatement of the pavement is to be constructed using approved Type 2 Gravel base material and compacted in layers no more than 150mm thick with mechanical rammers to 95% percent MMDD minimum in accordance with test 5.2.1 of AS 1289. Nevertheless, the top 150mm layer of the road based shall be compacted to 100% MMDD. The material used is to be at Optimum Moisture Content (OMC). Above the level of the pavement, trench is to be finished off with 40mm of Asphalt after the edges have been saw cut.

Table - Dry Density Ratios for Conformance

Works Components	Mean Dry Density Ratio (R) % ("n" is 3 to 5)	
Natural surface to subgrade, fill, batters, table drain blocks, fill for water course, unpaved areas	90.0 or greater	Conformance
	89.9 or less	Non-conformance
Subgrade, sub-base, unsealed base, shoulders, select fill, levees, structures and culverts in fill, bridge foundation backfill, bridge abutment fill	95.0 or greater	Conformance
	94.9 or less	Non-conformance
Sealed basecourse	100.0 or greater	Conformance
	99.9 or less	Non-conformance
Stabilised basecourse	98.0 or greater	Conformance
	97.9 or less	Non-conformance

Backfill all test excavations with the material and density ratio specified for that layer stabilised with at least 3% cement (by mass).

7. Subgrade And Pavements

- » Should the construction of a Subgrade is required; it must be constructed to the same cross section profile as the finished pavement surface.
- » Compaction test for Subgrade and Pavement form part of the approval process.
- » Once the Subgrade is approved, it must not be left exposed for longer than one week.
- » Preparation of the base course is not to proceed until the Director has given approval. Council will recover costs of any additional inspection if the developer has made no genuine attempt to protect the Subgrade.
- » The base course must be placed, rolled, and compacted in layers not exceeding 150mm in depth, and to the correct moisture content. The correct pavement shape must be maintained at each compacted layer.
- » The developer must not proceed with any bituminous surfacing on the pavement until approval from the Director has been obtained following the final trim and compaction testing.
- » Director reserves the right to request a proof rolling for compaction testing

8. Road Drainage

On rural areas, table drains play a key role in managing the storm water runoff.

- » Council has adopted trapezoidal (flat bottom) table drains as they reduce the risk of erosion.
- » When possible, road drainage should be dispersed intermittently off the road reserve, via cut off drains rather to directly direct all storm water runoff to natural waterways. Exercise care with cut off drains in order to prevent erosion to adjacent properties.
- » Batters must not be extended into private properties.
- » Council also requires topsoiling and the re-establishment of native grass to minimise the erosion, movement of silt to natural waterways and silt deposits on the base of the drain itself.
- » Road drainage shall be designed for a specific design of storm recurrence interval. The value adopted by the Council is Q5
- » Property accesses shall be designed for an ARI of Q100.
- » Culvert design must include the design of causeways and floodways.
- » Considerations of the design and calculations results shall be shown on the Drawings.
- » Drainage calculations shall be made using a method that complies with current Australian Hydrologic Engineering Practice.

9. Surfacing

- » Residential vehicle driveways: Prime and seal – 10 mm aggregate
- » Industrial Access as per Council Standard Drawing

10. Reticulated Services

- » Should the Developer / Contractor seeks to install / relocate services, Council will require the “for Construction Drawings” being approved by the relevant authority prior the commencement of any works (e.g. PowerWater). The Approval must contain the stamp, Name, Signature, and a Contact number of the person conceding the approval.
- » Open excavations are not permitted across the road. Thrust boring is a preferred method. Director of Works reserves the right to provide exceptional permission under specific site conditions.
- » Stormwater connection to Council’s system (under the verge):
 - To be reinforced concrete Pipe Class 2 or equivalent 225mm minimum.
 - Sealed joints are to be used for all drainage lines – external bands or rubber ring joints.
 - PVC / PVC-U not permitted.
- » Line is to be extended at least 1 metre each side of the pavement.
- » Water rain marker tape will be required when the service is laid in an open excavation.



- » For thrust boring within Council road reserves, appropriate safety measures are required around the trench at the side of the road, to Worksafe NT Standard. Please refer to AS1742 for Signs and Safety Fences.
- » Contractor/Applicant is to notify Litchfield Council's Works Department (08 89830622 / 89830615) prior to commencement and on completion of works.

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Date: 1 July 2013

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