Application For Utility Services Along and Across a Road Reserve and Through Culverts



GUIDELINE FOR MANAGEMENT OF THE ROAD RESERVE

table of contents.

APPLIC AND 1	THROUGH CULVERTS	۔ 3
G-1:	APPLICATION GUIDELINE FOR INSTALLATION / RELOCATION OF WATER SUPPLY A SEWERAGE RETICULATION SERVICES	4ND 7
G-2:	APPLICATION GUIDELINE FOR INSTALLATION / RELOCATION OF ELECTRICAL SERVICES	14
G-3:	APPLICATION GUIDELINE FOR INSTALLATION / RELOCATION OF TELECOMMUNICATION SERVICES	21
G-4:	APPLICATION GUIDELINE FOR INSTALLATION OF SERVICES THROUGH EXISTING CULVERTS	28

APPLICATION GUIDELINE FOR UTILITY SERVICES ALONG AND ACROSS A ROAD RESERVE AND THROUGH CULVERTS

1 PURPOSE OF GUIDELINE

This guideline contains information on the submission of an application to obtain approval for utility services parallel to or crossing an existing Roads Directorate road reserve, or relocation of such services and services though culverts. The guideline provides a standard format for the application to simplify and expedite applications. It also provides the applicant with a broad reference of the relevant information necessary to submit such an application.

This guideline applies to storm-water drainage, including surface run-off, channel, culvert and subsurface.

Note the following:

- A formal application letter is to be addressed to the Director Genera I(Attention to the relevant Regional Manager Central, North or South), Roads Directorate, PO Box 194, Maseru 100, Lesotho and submitted to Roads Directorate office at the relevant district.
- b. Submission of a Wayleave Application Form and the accompanying letters and plans will not automatically result in approval for the storm-water services and approval could still be denied.
- c. The application shall be submitted under the signature of a representative engineer
- d. The responsibility rests with the applicant to provide all necessary plans, reports and information.
- e. The application shall conform to the standards adopted by Roads Directorate.
- f. Additional information not covered in this guideline may be requested by Roads Directorate.
- g. No work is allowed within a declared road reserve of Roads Directorate without an approved wayleave. A Wayleave Agreement will be established with the applicant on approval of this application.
- h. The applicant shall introduce an authorised representative Engineer to Roads Directorate for communication of his/her application.

2 **PROCEDURE**

- a. The applicant (representative engineer) shall discuss the pending application with Roads Directorate verbally and/or in writing.
- b. The applicant shall then conduct a Service Enquiry, which is the process of:
 - i. Obtaining service plans indicating the positions of existing services from other service utility providers identified by Roads Directorate. The service plans should indicate the positions and type of services in the area where work will be done.
 - ii. Investigating the area where work will be done for service markers and signs of existing services not yet identified, confirming with these service providers and obtaining service plans directly from them;
 - iii. Confirming with other service providers not yet consulted in i and ii above regarding potentially unmarked services;
 - iv. Obtaining requirements from other service providers regarding work under, adjacent to or over their utility services. Service providers may impose reasonable additional conditions relating to work in the proximity of their services. These shall be provided in writing to the applicant;
 - v. Verifying with all other service providers whether future work is planned in the area where work will be done. If any, these shall be provided in writing to the applicant.
- c. The applicant shall always assume that underground utility services are present until proven otherwise. For the purpose of the application, location of underground services shall only be based on the Service Enquiry and non-invasive methods.
- d. The applicant shall then submit an application form for formal approval of the installation or relocation of storm-water services. A reference number will be allocated to the applicant by means of acknowledgement of receipt of the formal application.
- e. The application shall be evaluated and an Approval issued in the form of a wayleave agreement to construct the services.
- f. The applicant may be requested to supply additional information.
- g. The applicant can only proceed with construction after formal approval of this application, and signing of the Wayleave Agreement.
- h. A Wayleave Agreement shall only be issued once all details concerning the legal, financial, contribution, compensation and technical matters are in place.
- i. Note that 4 to 6 weeks are required to evaluate an application, starting from the date on which all the required information is received.



3 COVERING LETTER

- a. The purpose of the letter is to request approval for the installation or relocation of the storm-water services, referring to all / any relevant documentation and correspondence. The letter shall state clearly and concisely the scope of the application.
- b. State the full name and postal addresses of the client / owner / developer clearly. Provide the particulars of the legally responsible body / individual and representative engineer.
- c. Provide the following:
 - i. The road number and name of the road with the destinations.
 - ii. Indicate the kilometre distance(s) of the proposed storm-water services on the Roads Directorate road. Parallel storm-water services installed along the road reserve shall be described by length from start km distance to end km distance. For a storm-water service intercepting the road reserve, the km distance on the centre of the proposed storm-water service shall be noted.
 - iii. Reference to any previous correspondence / approvals, etc. and supporting documents where necessary.
 - iv. Background information.
 - v. Proof of arrangements made with the relevant utility service providers regarding utility services to be relocated, as discussed in the Roads Directorate's documents "General Information for Wayleaves" and "Wayleaves: Service Locations". Note that the affected utility service providers (if any) will have to submit applications for relocation of their services.
 - vi. Construction programme, including allowance for relocation of affected services.
 - vii. List of plans submitted.
 - viii. Methods of installation (jacking, drilling or open trench).
 - ix. Discussions or motivation of any aspect not in accordance to standards adopted by Roads Directorate.

4 LIST OF PLANS

The following shall be submitted with the covering letter (refer to 3):

- One (1) paper print of each individual plan (see below), all plans shall be folded to A4 size.
- All individual plans in electronic drawings, in DXF, DWG, DGN or ESRI shape file format in South African Lo27 Transverse Mercator projected Coordinate System referenced to the Cape Datum.

 One electronic copy of all XYZ coordinates in MS Excel, in South African Lo27 Transverse Mercator projected Coordinate System referenced to the Cape Datum.

All plans shall be in metric units.

The Plans necessary for submission in support of the application for principle approval are:

- a. Locality Plan The area on the plan shall be to a scale of 1:50 000 and the proposed site for shall be circled or highlighted
- b. Key Plan The Key Plan must be to a scale of 1:5 000 for all urban areas and 1:10 000 for all rural areas and on an existing cadastral map. The Key Plan must cover at least 700 m on either side of the proposed access and all other existing accesses and intersections must be indicated
- c. Layout Plan Detailed plan of the proposed access road/s with destinations and direction of traffic. Use a scale of 1:500 or 1:250

As necessary, digital and printed photographs clearly showing the area of the proposed work, shall be attached.



G-1: APPLICATION GUIDELINE FOR INSTALLATION / RELOCATION OF WATER SUPPLY AND SEWERAGE RETICULATION SERVICES

1 PURPOSE OF GUIDELINE

This guideline contains information on the submission of an application to obtain approval for installation of water supply and sewerage reticulation services parallel to or crossing an existing Roads Directorate road reserve, or relocation of such services. The guideline provides a standard format for the application to simplify and expedite applications. It also provides the applicant with a broad reference of the relevant information necessary to submit such an application.

This guideline applies to water supply and sewerage reticulation services. It recognises the fact that Roads Directorate and the Water and Sewerage Company (WASCO) signed a Memorandum of Understanding (MoU), with the purpose:

- "To formulate and agree on the manner of dealing with applications for approval to work or lay water and sewerage infrastructure within the road reserve and the approvals on such applications that shall be binding and shall be adhered to by both parties,
- To identify possible areas of cooperation between the parties which would enhance their working relationship, and
- To clearly identify and set out roles and responsibilities to be undertaken by both parties under this MoU."

This guideline shall be read considering the MoU purpose.

Note the following:

- a. A formal application letter is to be addressed to the Director Genera I(Attention to the relevant Regional Manager Central, North or South), Roads Directorate, PO Box 194, Maseru 100, Lesotho and submitted to Roads Directorate office at the relevant district.
- b. Submission of letters and plans will not automatically result in approval for the water supply or sewerage reticulation services and approval could still be denied.
- c. The application shall be submitted under the signature of a representative engineer, alternatively by an authorised representative of the utility services provider.
- d. The responsibility rests with the applicant to provide all necessary plans, reports

and information.

- e. Additional information not covered in this guideline may be requested by Roads Directorate.
- f. The application shall conform to the standards adopted by Roads Directorate.
- g. No work is allowed within a declared road reserve of Roads Directorate without an approved wayleave. A Wayleave Agreement will be established with the applicant on approval of this application.
- h. The applicant shall introduce an authorised representative to Roads Directorate for communication of his/her application.

2 **PROCEDURE**

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- a. The applicant shall discuss the pending application with Roads Directorate verbally and/or in writing.
- b. The applicant shall then conduct a Service Enquiry, which is the process of:
 - i. Obtaining service plans indicating the positions of existing services from other service utility providers identified by Roads Directorate. The service plans should indicate the positions and type of services in the area where work will be done.
 - ii. Investigating the area where work will be done for service markers and signs of existing services not yet identified, confirming with these service providers and obtaining service plans directly from them;
 - iii. Confirming with other service providers not yet consulted in i and ii above regarding potentially unmarked services;
 - iv. Obtaining requirements from other service providers regarding work under, adjacent to or over their utility services. Service providers may impose reasonable additional conditions relating to work in the proximity of their services. These shall be provided in writing to the applicant;
 - v. Verifying with all other service providers whether future work is planned in the area where work will be done. If any, these shall be provided in writing to the applicant.
- c. The applicant shall always assume that underground utility services are present until proven otherwise. For the purpose of the application, location of underground services shall only be based on the Service Enquiry and non-invasive methods.
- d. The applicant shall then submit an application form for formal approval of the installation or relocation of water supply or sewerage reticulation services. A reference number will be allocated to the applicant by means of acknowledgement of receipt of the formal application.
- e. The application shall be evaluated and an approval issued in the form of a



wayleave agreement to construct the services.

- f. The applicant may be requested to supply additional information.
- g. The applicant can only proceed with construction after formal approval of this application, and signing of the Wayleave Agreement.
- h. A Wayleave Agreement shall only be issued once all details concerning the legal, financial, contribution, compensation and technical matters are in place.
- i. Note that 4 to 6 weeks are required to evaluate an application, starting from the date on which all the required information is received.

3 COVERING LETTER

- a. The purpose of the letter is to request approval for the installation or relocation of the water supply or sewerage reticulation services, referring to all / any relevant documentation and correspondence. The letter shall state clearly and concisely the scope of the application.
- b. State the full name and postal addresses of the client / owner / developer clearly. Provide the particulars of the legally responsible body / individual and representative engineer
- c. Provide the following:
 - i. The road number and name of the road with the destinations.
 - ii. Description of the services, whether water supply or sewerage reticulation. Indicate class of service, pipe diameters, amount of elements combined in one service or number of individual services, e.g. water pipe 200mm diameter uPVC Class 24.
 - iii. Indicate the kilometre distance(s) of the proposed services on the Roads Directorate road. Parallel services installed along the road reserve shall be described by length from start km distance to end km distance. For a service intercepting the road reserve, the km distance on the centre of the proposed service shall be noted.
 - iv. Reference to any previous correspondence / approvals, etc. and supporting documents where necessary.
 - v. Background information.
 - vi. Proof of arrangements made with the relevant affected utility service providers regarding utility services to be relocated (if any) due to this planned installation / relocation, as discussed in the Roads Directorate's documents "General Information for Wayleaves", "Wayleaves: Service Locations" and relevant utility service guidelines. Note that the affected utility service providers (if any) will have to submit applications for relocation of their services.

- vii. Construction programme, including allowance for relocation of affected services.
- viii. List of plans submitted.
- ix. Methods of installation (jacking, drilling or open trench).
- x. Discussions or motivation of any aspect not in accordance to standards adopted by Roads Directorate.

4 LIST OF PLANS

The following shall be submitted with the covering letter (refer 3):

- One (1) paper print of each individual plan (see below), all plans shall be folded to A4 size.
- All individual plans in electronic drawings, in DXF, DWG, DGN or ESRI shape file format in South African Lo27 Transverse Mercator projected Coordinate System referenced to the Cape Datum.
- One electronic copy of all XYZ coordinates in MS Excel, in South African Lo27 Transverse Mercator projected Coordinate System referenced to the Cape Datum.

All plans shall be in metric units.

The Plans necessary for submission in support of the application are:

- a. Locality Plan Refer to 5.1
- b. Key Plan Refer to 5.2
- c. Services Layout Plan / Relocation Plan Refer to 5.3
- d. Road Cross Section on Position of Service Crossing Refer to 5.4
- e. Structural Plans Refer to 5.5
- f. Temporary Road Signage at Road Works Refer to 5.6

As necessary, digital and printed photographs clearly showing the area of the proposed work, shall be attached.

5 DESCRIPTION OF PLANS

5.1 Locality Plan

The area on the plan covered by the Locality Plan shall be part of the Key Plan. A scale of 1:50 000 shall be used showing the following information:

- a. Scale;
- b. Existing roads to be shown in a thinner line than that used for the road under



discussion;

- c. Indicate all existing and proposed intersection and access positions;
- d. The relevant area under consideration must be circled or high-lighted;
- e. All road numbers and street names.

5.2 Key Plan

A scale of 1:5 000 shall be used showing the following information:

- a. Roads Directorate road affected by proposed service(s);
- b. Bridge and Culvert positions;
- c. Road numbers and street names;
- d. Destinations;
- e. Existing roads and public or access roads;
- f. Kilometre distance of the Roads Directorate road;
- g. Subdivision of properties, community council boundaries;
- h. Road reserves;
- i. North arrow;
- j. Proposed water supply or sewerage reticulation service.

5.3 Services Layout Plan / Relocation Plan

Use a scale of 1:1000; 1:500 or 1:250. The purpose of the layout plan is to show the detail of the proposed service and any existing other services on the background of road geometry and topographical detail, property descriptions and the extent of existing and future road reserves. The following information, as applicable, shall be shown on the Layout Plan:

- a. Existing other services include electrical, telecommunications, water, sewerage, storm-water systems. Tabulate the points of change in alignment of all services and fully describe the type of service and name the responsible authority or name of owners. Refer to Services Enquiry mentioned in Section 2.
- b. The proposed service shall be distinguishable from existing service infrastructure and be labelled clearly. Similarly, any proposed relocation of affected existing other services shall be distinguishable and labelled.
- c. Indicate any physical obstacles in the vicinity of the proposed service, such as trees, road signs and all other existing services.
- d. Existing and planned road reserves, community council and cadastral boundaries, servitudes and property descriptions, rivers, water courses and their names.
- e. The road geometry shall be displayed, with chainages on the centre line relative

to the distance markers for future and existing roads. Provide road numbers, street names and destinations.

- f. Provide full dimensions of road surface (road prism) and reserve widths. The distance between the centreline of the service (as well as any other services to be relocated) and the line of the road reserve, as well as the edge of the road surfacing shall be shown.
- g. Direction of traffic movement.
- h. North arrow and scale.
- i. Bench mark for levels.

5.4 Road Cross-Sections on Position of Service Crossings

Where the service crosses the road underground a cross-section of the road reserve shall indicate the following:

- a. A level survey shall be undertaken of the entire length of the cross-section at the position of the future service. The levels shall be given on the plan of the cross-section.
- b. Ensure that the levels on the road centre line, edge of surfacing and shoulders of the existing roadway are given as well as the design levels of the future road surface (if applicable).
- c. Present and future (if applicable) road reserve boundary.
- d. Full detail drawing of the proposed pipe sleeve, indicating the contained service. All details pertaining to the thrust and receiving pits shall be provided, as well as a fully detailed drawing of the access pits.
- e. Position and levels (top of sleeve / service) as well as full description of existing services intersected by the path of the proposed service.
- f. Where buried services intersect the position of bridges, the bridge structure and footing shall be represented in detail similar to the bridge drawings of Roads Directorate.
- g. Underground services shall be installed according to the standard guidelines of Roads Directorate (refer to "Preferred Utility Service Locations").

5.5 Structural Plans

These plans shall show general specifications of all proposed structures e.g. design notes, class of concrete, finish on concrete or masonry surfaces, provision of drainage, etc. Reinforcing details shall also be shown for structural concrete.



5.6 Temporary Road Signage at Road Works

Road signs and barriers shall be provided for the duration of the works and shall be removed once the works have been fully completed and no danger exists to road users.

6 STANDARD DOCUMENTATION

6.1 Jacking, Drilling and Open Trenches

a. Refer to Guideline for Jacking, Drilling and Open Trench Excavations.

6.2 General Information on Wayleaves

a. Refer to General Information on Wayleaves.

6.3 Service Locations

a. Refer to Preferred Utility Service Locations.

G-2: APPLICATION GUIDELINE FOR INSTALLATION / RELOCATION OF ELECTRICAL SERVICES

1 PURPOSE OF GUIDELINE

This guideline contains information on the submission of an application to obtain approval for installation of electrical services parallel to or crossing an existing Roads Directorate road reserve, or relocation of such services. The guideline provides a standard format for the application to simplify and expedite applications. It also provides the applicant with a broad reference of the relevant information necessary to submit such an application.

This guideline applies to underground or overhead electrical services.

Note the following:

- A formal application letter is to be addressed to the Director Genera I(Attention to the relevant Regional Manager Central, North or South), Roads Directorate, PO Box 194, Maseru 100, Lesotho and submitted to Roads Directorate office at the relevant district.
- b. Submission of a Wayleave Application Form and the accompanying letters and plans will not automatically result in approval for the electrical services and approval could still be denied.
- c. The application shall be submitted under the signature of a representative engineer or by an authorised official of the Lesotho Electricity Company (LEC).
- d. The responsibility rests with the applicant to provide all necessary plans, reports and information.
- e. Additional information not covered in this guideline may be requested by Roads Directorate.
- f. The application shall conform to the standards adopted by Roads Directorate.
- g. No work is allowed within a declared road reserve of Roads Directorate without an approved wayleave. A Wayleave Agreement will be established with the applicant on approval of this application.
- h. The applicant shall introduce an authorised representative to Roads Directorate for communication of his/her application.



2 **PROCEDURE**

- a. The applicant shall discuss the pending application with Roads Directorate verbally and/or in writing.
- b. The applicant shall then conduct a Service Enquiry, which is the process of:
 - i. Obtaining service plans indicating the positions of existing services from other service utility providers identified by Roads Directorate. The service plans should indicate the positions and type of services in the area where work will be done.
 - ii. Investigating the area where work will be done for service markers and signs of existing services not yet identified, confirming with these service providers and obtaining service plans directly from them;
 - iii. Confirming with other service providers not yet consulted in a and b above regarding potentially unmarked services;
 - iv. Obtaining requirements from other service providers regarding work under, adjacent to or over their utility services. Service providers may impose reasonable additional conditions relating to work in the proximity of their services. These shall be provided in writing to the applicant;
 - v. Verifying with all other service providers whether future work is planned in the area where work will be done. If any, these shall be provided in writing to the applicant.
- c. The applicant shall always assume that underground utility services are present until proven otherwise. For the purpose of the application, location of underground services shall only be based on the Service Enquiry and non-invasive methods.
- d. The applicant shall then submit an application form ` for formal approval of the installation or relocation of electrical services. A reference number will be allocated to the applicant by means of acknowledgement of receipt of the formal application.
- e. The application shall be evaluated and an Approval issued in the form of a wayleave agreement to construct the services.
- f. The applicant may be requested to supply additional information.
- g. The applicant can only proceed with construction after formal approval of this application, and signing of the Wayleave Agreement.
- h. A Wayleave Agreement shall only be issued once all details concerning the legal, financial, contribution, compensation and technical matters are in place.
- i. Note that 4 to 6 weeks are required to evaluate an application, starting from the date on which all the required information is received.

3 COVERING LETTER

- a. The purpose of the letter is to request approval for the installation or relocation of the electrical service, referring to all / any relevant documentation and
 - of the electrical service, referring to all / any relevant documentation and correspondence. The letter shall state clearly and concisely the scope of the application.
 - b. State the full name and postal addresses of the client / owner / developer clearly. Provide the particulars of the legally responsible body / individual and representative engineer.
 - c. Provide the following:
 - i. The road number and name of the road with the destinations.
 - ii. Description of the services.
 - iii. Indicate the kilometre distance(s) of the proposed services on the Roads Directorate road. Parallel services installed along the road reserve shall be described by length from start km distance to end km distance. For a service intercepting the road reserve, the km distance on the centre of the proposed service shall be noted.
 - iv. Reference to any previous correspondence / approvals, etc. and supporting documents where necessary.
 - v. Background information.
 - vi. Proof of arrangements made with the relevant affected utility service providers regarding utility services to be relocated due to this planned installation / relocation (if any), as discussed in the Roads Directorate's documents "General Information for Wayleaves", "Wayleaves: Service Locations" and relevant utility service guidelines. Note that the affected utility service providers (if any) will have to submit applications for relocation of their services.
 - vii. Installation or relocation programme, including allowance for relocation of affected services, if any.
 - viii. List of plans submitted.
 - ix. Methods of installation (jacking, drilling or open trench).
 - x. Discussions or motivation of any aspect not in accordance to standards adopted by Roads Directorate.



4 LIST OF PLANS

The following shall be submitted with the covering letter (refer 3):

- One (1) paper print of each individual plan (see below), all plans shall be folded to A4 size.
- All individual plans in electronic drawings, in DXF, DWG, DGN or ESRI shape file format in South African Lo27 Transverse Mercator projected Coordinate System referenced to the Cape Datum.
- One electronic copy of all XYZ coordinates in MS Excel, in South African Lo27 Transverse Mercator projected Coordinate System referenced to the Cape Datum.

All plans shall be in metric units.

The Plans necessary for submission in support of the application are:

- i. Locality Plan Refer to 5.1
- ii. Key Plan Refer to 5.2
- iii. Services Layout Plan / Relocation Plan Refer to 5.3
- iv. Road layout indicating positioning of the service Refer to 5.4
- v. Road Cross-Section at Position of Service Crossing Refer to 5.5
- vi. Structural Plans Refer to 5.6
- vii. Temporary Road Signage at Road Works Refer to 5.7

As necessary, digital and printed photographs clearly showing the area of the proposed work, shall be attached.

5 DESCRIPTION OF PLANS

5.1 Locality Plan

The area on the plan covered by the Locality Plan shall be part of the Key Plan. A scale of 1:50 000 shall be used showing the following information:

- a. Scale;
- b. Existing roads to be shown in a thinner line than that used for the road under discussion;
- c. Indicate all existing and proposed intersection and access positions;
- d. The relevant area under consideration must be circled or high-lighted;
- e. All road numbers and street names.

5.2 Key Plan

G-2:

A scale of 1:5 000 shall be used showing the following information:

- a. Roads Directorate road affected by proposed service(s);
- b. Bridge and intersection positions;
- c. Road numbers and street names;
- d. Destinations;
- e. Existing roads and public or access roads;
- f. Kilometre distance of the Roads Directorate road;
- g. Subdivision of properties, community council boundaries;
- h. Road reserves;
- i. North arrow;
- j. Proposed electrical service highlighted.

5.3 Services Layout Plan / Relocation Plan

Use a scale of 1:1000; 1:500 or 1:250. The purpose of the layout plan is to show the detail of the proposed service and existing other services on the background of road geometry and topographical detail, property descriptions and the extent of existing and future road reserves. The following information, as applicable, shall be shown on the Layout Plan:

- a. Existing other services include electrical, telecommunications, water, sewerage, storm-water systems. Tabulate the points of change in alignment of all services and fully describe the type of service and name the responsible authority or name of owners. Refer to the Service Enquiry mentioned in Section 2.
- b. The proposed service shall be distinguishable from existing service infrastructure and be labelled clearly. Similarly, any proposed relocation of affected existing other services shall be distinguishable and labelled.
- c. Indicate any physical obstacles in the vicinity of the proposed service, such as trees, road signs and all other existing services.
- d. Existing and planned road reserves, community council and cadastral boundaries, servitudes and property descriptions, rivers, water courses and their names.
- e. The road geometry shall be displayed, with chainages on the centre line relative to the distance markers for future and existing roads. Provide road numbers, street names and destinations.
- f. Provide full dimensions of road surface (road prism) and reserve widths. The distance between the centreline of the proposed service (as well as any other service to be relocated) and the line of the road reserve, as well as the edge of the road surfacing shall be shown.



- g. Direction of traffic movement.
- h. North arrow and scale.
- i. Bench mark for levels.

5.4 Road Cross-Sections at Position of Service Crossings

Where the service crosses the road, whether overhead or underground, a cross-section of the road reserve shall indicate the following:

- a. A level survey shall be undertaken of the entire length of the cross-section at the position of the future service. The levels shall be given on the plan of the cross-section.
- b. Ensure that the levels on the road centre line, edge of surfacing and shoulders of the existing roadway are given as well as the design levels of the future road surface (if applicable).
- c. Present and future (if applicable) road reserve boundary.
- d. Full detail drawing of the proposed pipe sleeve, indicating the contained service. All details pertaining to the thrust and receiving pits shall be provided, as well as a fully detailed drawing of the access pits.
- e. Position and levels (top of sleeve / service) as well as full description of existing services intersected by the path of the proposed service.
- f. For overhead services, indicate the height of the proposed service above the centreline of the road and the spacing between levels of services.
- g. Where buried services intersect the position of bridges, the bridge structure and footing shall be represented in detail similar to the bridge drawings of Roads Directorate.
- h. Underground services shall be installed according to the standard guidelines of Roads Directorate (refer to "Preferred Utility Service Locations").

5.5 Structural Plans

These plans shall show general specifications of all proposed structures e.g. design notes, class of concrete, finish on concrete or masonry surfaces, provision of drainage, etc. Reinforcing details shall also be shown for structural concrete.

5.6 Temporary Road Signage at Road Works

Road signs and barriers shall be provided for the duration of the works and shall be removed once the works have been fully completed and no danger exists to road users.

ELECTRICAL SERVICES

6 STANDARD DOCUMENTATION

G-2:

6.1 Jacking, Drilling and Open Trenches

a. Refer to Guideline for Jacking, Drilling and Open Trench Excavations.

6.2 General Information on Wayleaves

a. Refer to General Information on Wayleaves.

6.3 Service Locations

a. Refer to Preferred Utility Service Locations.

7 GENERAL

If at any stage road works e.g. road widening is being planned, the service shall be removed, relocated, extended or deviated as necessary at the applicant's cost and without compensation.

Where roads with future planning are affected, the service shall be placed in such a way that the future road is accommodated. This will prevent unnecessary relocation of the service with the implementation of the future road.



G-3: APPLICATION GUIDELINE FOR INSTALLATION / RELOCATION OF TELECOMMUNICATION SERVICES

1 PURPOSE OF GUIDELINE

This guideline contains information on the submission of an application to obtain approval for installation of telecommunication services parallel to or crossing an existing Roads Directorate road reserve, or relocation of such services. The guideline provides a standard format for the application to simplify and expedite applications. It also provides the applicant with a broad reference of the relevant information necessary to submit such an application.

This guideline applies to underground or overhead telecommunication services.

Note the following:

- A formal application letter is to be addressed to the Director General (Attention to the relevant Regional Manager Central, North or South), Roads Directorate, PO Box 194, Maseru 100, Lesotho and submitted to Roads Directorate office at the relevant district.
- b. Submission of a Wayleave Application Form and the accompanying letters and plans will not automatically result in approval for the telecommunication services and approval could still be denied.
- c. The application shall be submitted under the signature of a reprentative engineer, alternatively by an authorised representative of the utility service provider.
- d. The responsibility rests with the applicant to provide all necessary plans, reports and information.
- e. The application shall conform to the standards adopted by Roads Directorate.
- f. Additional information not covered in this guideline may be requested by Roads Directorate.
- g. No work is allowed within a declared road reserve of Roads Directorate without an approved wayleave. A Wayleave Agreement will be established with the applicant on approval of this application.

2 PROCEDURE

a. The applicant shall discuss the pending application with Roads Directorate verbally and/or in writing.

G-3:

- b. The applicant shall then conduct a Service Enquiry, which is the process of:
 - i. Obtaining service plans indicating the positions of existing services from other service utility providers identified by Roads Directorate. The service plans should indicate the positions and type of services in the area where work will be done.
 - ii. Investigating the area where work will be done for service markers and signs of existing services not yet identified, confirming with these service providers and obtaining service plans directly from them;
 - iii. Confirming with other service providers not yet consulted in i and ii above regarding potentially unmarked services;
 - iv. Obtaining requirements from other service providers regarding work under, adjacent to or over their utility services. Service providers may impose reasonable additional conditions relating to work in the proximity of their services. These shall be provided in writing to the applicant;
 - v. Verifying with all other service providers whether future work is planned in the area where work will be done. If any, these shall be provided in writing to the applicant.
- c. The applicant shall always assume that underground utility services are present until proven otherwise. For the purpose of the application, location of underground services shall only be based on the Service Enquiry and non-invasive methods.
- d. The applicant shall then submit an application form for formal approval of the installation or relocation of telecommunication services. A reference number will be allocated to the applicant by means of acknowledgement of receipt of the formal application.
- e. The application shall be evaluated and approvals are issued in the form of a wayleave agreement to install the services.
- f. The applicant may be requested to supply additional information.
- g. The applicant can only proceed with installation / relocation after formal approval of this application, and signing of the Wayleave Agreement.
- h. A Wayleave Agreement shall only be issued once all details concerning the legal, financial, contribution, compensation and technical matters are in place.
- i. Note that 4 to 6 weeks are required to evaluate an application, starting from the date on which all the required information is received.
- j. The applicant shall introduce a authorised delegate to Roads Directorate for communication of his/her application.



3 COVERING LETTER

- a. The purpose of the letter is to request approval for the installation or relocation of the telecommunication service, referring to all / any relevant documentation and correspondence. The letter shall state clearly and concisely the scope of the application.
- b. State the full name and postal addresses of the client / owner / developer clearly. Provide the particulars of the legally responsible body / individual and representative engineer.
- c. Provide the following:
 - i. The road number and name of the road with the destinations.
 - ii. Description of the services.
 - iii. Indicate the kilometre distance(s) of the proposed services on the Roads Directorate road. Parallel services installed along the road reserve shall be described by length from start km distance to end km distance. For a service intercepting the road reserve, the km distance on the centre of the proposed service shall be noted.
 - iv. Reference to any previous correspondence / approvals, etc. and supporting documents where necessary.
 - v. Background information.
 - vi. Proof of arrangements made with the relevant affected utility service providers regarding utility services to be relocated (if any) due to this planned installation / relocation, as discussed in the Roads Directorate's documents "General Information for Wayleaves", "Wayleaves: Service Locations" and relevant utility service guidelines. Note that the affected utility service providers (if any) will have to submit applications for relocation of their services.
 - vii. Installation or relocation programme, including allowance of relocation of affected services.
 - viii. List of plans submitted.
 - ix. Methods of installation (jacking, drilling or open trench).
 - x. Discussions or motivation of any aspect not in accordance to standards adopted by Roads Directorate.

4 LIST OF PLANS

The following shall be submitted with the covering letter (refer 3):

• One (1) paper print of each individual plan (see below), all plans shall be folded to A4 size.

- All individual plans in electronic drawings, in DXF, DWG, DGN or ESRI shape file format in South African Lo27 Transverse Mercator projected Coordinate System referenced to the Cape Datum.
- One electronic copy of all XYZ coordinates in MS Excel, in South African Lo27 Transverse Mercator projected Coordinate System referenced to the Cape Datum.

All plans shall be in metric units.

The Plans necessary for submission in support of the application are:

- a. Locality Plan Refer to 5.1
- b. Key Plan Refer to 5.2
- c. Service layout Plan / Relocation Plan Refer to 5.3
- d. Road cross-section at position of service crossing Refer to 5.4
- e. Road reserve longitudinal section for parallel service Refer to 5.5
- f. Structural Plans Refer to 5.6
- g. Temporary road signage at road works (if applicable) Refer to 5.7
- As necessary, digital and printed photographs clearly showing the area of the proposed work, shall be attached.

5 DESCRIPTION OF PLANS

5.1 Locality Plan

The area on the plan covered by the Locality Plan shall be part of the Key Plan. A scale of 1:50 000 shall be used showing the following information:

- a. Scale;
- b. Existing roads to be shown in a thinner line than that used for the road under discussion;
- c. Indicate all existing and proposed intersection and access positions;
- d. The relevant area under consideration must be circled or high-lighted;
- e. All road numbers and street names.

5.2 Key Plan

A scale of 1:5 000 shall be used showing the following information:

- a. Roads Directorate road affected by proposed service(s);
- b. Bridge and intersection positions;
- c. Road numbers and street names;
- d. Destinations;



- e. Existing roads and public or access roads;
- f. Kilometre distance of the Roads Directorate road;
- g. Subdivision of properties, community council boundaries;
- h. Road reserves;
- i. North arrow;
- j. Proposed telecommunication service highlighted.

5.3 Services Layout Plan / Relocation Plan

Use a scale of 1:1000; 1:500 or 1:250. The purpose of the layout plan is to show the detail of the proposed services and any existing services on the background of road geometry and topographical detail, property descriptions and the extent of existing and future road reserves. The following information, as applicable, shall be shown on the Layout Plan:

- a. Existing services include electrical, telecommunications, water, sewerage, stormwater systems. Tabulate the points of change in alignment of all services and fully describe the type of service and name the responsible authority or name of owners. Refer to the Service Enquiry mentioned in Section 2.
- b. The proposed service shall be distinguishable from existing infrastructure and be labelled clearly. Similarly, any proposed relocation of affected existing other services shall be distinguishable and labelled.
- c. Indicate any physical obstacles in the vicinity of the proposed service(s), such as trees, road signs and all other existing services.
- d. Existing and planned road reserves, community council and cadastral boundaries, servitudes and property descriptions, rivers, water courses and their names.
- e. The road geometry shall be displayed, with chainages on the centre line relative to the distance markers for future and existing roads. Provide road numbers, street names and destinations.
- f. Provide full dimensions of road surface (road prism) and reserve widths. The distance between the centreline of the proposed service (as well as any other service to be relocated) and the line of the road reserve, as well as the edge of the road surfacing shall be shown.
- g. Direction of traffic movement.
- h. North arrow and scale.
- i. Bench mark for levels.

5.4 Road Cross-Section at Position of Service Crossing

Where the service crosses the road, whether overhead or underground, a cross-section of the road reserve shall indicate the following:

a. A level survey shall be undertaken of the entire length of the cross-section at the

G-3:

position of the future service. The levels shall be given on the plan of the crosssection.

- b. Ensure that the levels on the road centre line, edge of surfacing and shoulders of the existing roadway are given as well as the design levels of the future road surface (if applicable).
- c. Present and future (if applicable) road reserve boundary.
- d. Full detail drawing of the proposed pipe sleeve, indicating the contained service. All details pertaining to the thrust and receiving pits shall be provided, as well as a fully detailed drawing of the access pits.
- e. Position and levels (top of sleeve / service) as well as full description of existing services intersected by the path of the proposed service.
- f. For overhead services, indicate the height of the proposed service above the centreline of the road and the spacing between levels of services.
- g. Where buried services intersect the position of bridges, the bridge structure and footing shall be represented in detail similar to the bridge drawings of Roads Directorate.
- h. Underground services shall be installed according to the standard guidelines of Roads Directorate (refer to "Preferred Utility Service Locations").

5.5 Road Reserve Longitudinal Section for Parallel Service

Where the service is planned to be installed parallel to the road, whether overhead or underground, a long-section of the road reserve shall indicate the following:

- a. A level survey shall be undertaken at 20 m intervals of the entire length of the longsection at the position of the future service. The levels shall be given on the plan of the long-section.
- b. Full detail drawing of the proposed pipe sleeve, indicating the contained service. All details pertaining to the thrust and receiving pits shall be provided (if applicable), as well as a fully detailed drawing of the access pits.
- c. Position and levels (top of sleeve / service) as well as full description of existing services intersected by the path of the proposed service.
- d. For overhead services, indicate the height of the proposed service above the road reserve and the centreline of any cross road.
- e. Where buried services intersect the position of bridges, the bridge structure and footing shall be represented in detail similar to the bridge drawings of Roads Directorate.
- f. Underground services shall be installed according to the standard guidelines of Roads Directorate (refer to "Preferred Utility Service Locations").



5.6 Structural Plans

These plans shall show general specifications of all proposed structures e.g. design notes, class of concrete, finish on concrete or masonry surfaces, provision of drainage, etc. Reinforcing details shall also be shown for structural concrete.

5.7 Temporary Road Signage at Road Works

Road signs and barriers shall be provided for the duration of the works and shall be removed once the works have been fully completed and no danger exists to road users.

6 STANDARD DOCUMENTATION

6.1 Jacking, Drilling and Open Trenches

a. Refer to Guideline for Jacking, Drilling and Open Trench Excavations.

6.2 General Information on Wayleaves

a. Refer to General Information on Wayleaves.

6.3 Service Locations

a. Refer to Preferred Utility Service Locations.

7 GENERAL

If at any stage road works e.g. road widening is being planned, the service shall be removed, relocated, extended or deviated as necessary at the applicant's cost and without compensation.

Where roads with future planning are affected, the service shall be placed in such a way that the future road is accommodated. This will prevent unnecessary relocation of the service with the implementation of the future road.

G-4: APPLICATION GUIDELINE FOR INSTALLATION OF SERVICES THROUGH EXISTING CULVERTS

1 PURPOSE OF GUIDELINE

This guideline contains information on the submission of an application to obtain approval for installation of services across an existing Roads Directorate road reserve, through an existing culvert. The guideline provides a standard format for the application to simplify and expedite applications. It also provides the applicant with a broad reference of the relevant information necessary to submit such an application.

Note the following:

- a. A formal application letter is to be addressed to the Director Genera I(Attention to the relevant Regional Manager Central, North or South), Roads Directorate, PO Box 194, Maseru 100, Lesotho and submitted to Roads Directorate office at the relevant district.
- b. Submission of a Wayleave Application Form and the accompanying letters and plans will not automatically result in approval for the installation of services through an existing culvert and approval could still be denied.
- c. A formal application letter is to be addressed to the Director Genera I(Attention to the relevant Regional Manager Central, North or South), Roads Directorate, PO Box 194, Maseru 100, Lesotho and submitted to Roads Directorate office at the relevant district.
- d. The responsibility rests with the applicant to provide all necessary plans, reports and information.
- e. The application shall conform to the standards adopted by Roads Directorate.
- f. Additional information not covered in this guideline may be requested by Roads Directorate.
- g. No work is allowed within a declared road reserve of Roads Directorate without an approved wayleave. A Wayleave Agreement will be established with the applicant on approval of this application.



2 **PROCEDURE**

- a. The applicant shall discuss the pending application with Roads Directorate verbally and/or in writing
- b. The applicant shall then conduct a Service Enquiry, which is the process of:
 - i. Obtaining service plans indicating the positions of existing services from other service utility providers identified by Roads Directorate. The service plans should indicate the positions and type of services in the area where work will be done.
 - ii. Investigating the area where work will be done for service markers and signs of existing services not yet identified, confirming with these service providers and obtaining service plans directly from them;
 - iii. Confirming with other service providers not yet consulted in i and ii above regarding potentially unmarked services;
 - iv. Obtaining requirements from other service providers regarding work under, adjacent to or over their utility services. Service providers may impose reasonable additional conditions relating to work in the proximity of their services. These shall be provided in writing to the applicant;
 - v. Verifying with all other service providers whether future work is planned in the area where work will be done. If any, these shall be provided in writing to the applicant.
- c. The applicant shall always assume that underground utility services are present until proven otherwise. For the purpose of the application, location of underground services shall only be based on the Service Enquiry and non-invasive methods.
- d. The applicant shall then submit an application form for formal approval of the installation of the service through an existing culvert. A reference number will be allocated to the applicant by means of acknowledgement of receipt of the formal application.
- e. The application shall be evaluated and approvals are issued in the form of a wayleave agreement to install the service.
- f. The applicant may be requested to supply additional information.
- g. The applicant can only proceed with installation after formal approval of this application, and signing of a Wayleave Agreement.
- h. A Wayleave Agreement shall only be issued once all details concerning the legal, financial, contribution, compensation and technical matters are in place.
- i. Note that 4 to 6 weeks are required to evaluate an application, starting from the date on which all the required information is received.
- j. The applicant shall introduce a representative delegate to Roads Directorate for communication of his/her application.

3 COVERING LETTER

- ----
 - a. The purpose of the letter is to request approval for the installation of a service through an existing culvert of Roads Directorate, referring to all / any relevant documentation and correspondence. The letter shall state clearly and concisely the scope of the application.
 - b. State the full name and postal addresses of the client / owner / developer clearly. Provide the particulars of the legally responsible body / individual and representative engineer.
 - c. Provide the following:
 - i. The road number and name of the road with the destinations.
 - ii. Description of the service to be installed in the existing culvert.
 - iii. Indicate the kilometre distance of the existing culvert. Provide photographs of the inlet and outlet structures, as well as culvert opening.
 - iv. Reference to any previous correspondence / approvals, etc. and supporting documents where necessary.
 - v. Background information.
 - vi. Proof of arrangements made with the relevant utility service providers regarding utility services affected and to be relocated or protected, as discussed in the Roads Directorate's documents "General Information for Wayleaves" and "Wayleaves: Service Locations". Note that the affected utility service providers (if any) will have to submit applications for relocation of their services.
 - vii. Installation programme, including allowance for relocation or other work required to affected services.
 - viii. List of plans submitted.
 - ix. Methods of installation inside the culvert, and through rest of the road deserve (jacking, drilling, trenching).
 - x. Discussion or motivation of any aspect not in accordance to standards adopted by Roads Directorate.

4 LIST OF PLANS

The following shall be submitted with the covering letter (refer 3):

- One (1) paper print of each individual plan (see below), all plans shall be folded to A4 size.
- All individual plans in electronic drawings, in DXF, DWG, DGN or ESRI shape file format in South African Lo27 Transverse Mercator projected Coordinate System referenced to the Cape Datum.



 One electronic copy of all XYZ coordinates in MS Excel, in South African Lo27 Transverse Mercator projected Coordinate System referenced to the Cape Datum.

All plans shall be in metric units.

The Plans necessary for submission in support of the application are:

- a. Locality Plan Refer to 5.1
- b. Key Plan Refer to 5.2
- c. Road Layout Plan Indicating the Position of the Culvert and the Service and Affected Services Refer to 5.3
- d. Road Cross Section on Position of Service Crossing Refer to 5.4
- e. Structural Plans Refer to 5.5
- f. Temporary Road Signage at Road Works (if applicable) Refer to 5.6

5 DESCRIPTION OF PLANS

5.1 Locality Plan

The area on the plan covered by the Locality Plan shall be part of the Key Plan. A scale of 1:50 000 shall be used showing the following information:

- a. Scale;
- b. Reference to original 1:50 000 sheets used to compile the Locality Plan;
- c. Existing roads to be shown in a thinner line than that used for the road under discussion;
- d. Indicate all existing intersection and access positions;
- e. The relevant area under consideration must be circled or high-lighted;
- f. All road numbers and street names.

5.2 Key Plan

A scale of 1:5 000 shall be used showing the following information:

- a. Roads Directorate road affected by proposed service;
- b. Bridge and Culvert positions;
- c. Road numbers and street names;
- d. Destinations;
- e. Existing roads and public or access roads;
- f. Kilometre distance of the existing culvert on the Roads Directorate road proposed for installation of the service;

- g. Subdivision of properties, community council boundaries;
- h. Road reserves;
- i. North arrow;
- j. Proposed service (highlighted).

5.3 Road Layout Plan Indicating Position of Culvert and Service and Affected Services

Use a scale of 1:1000; 1:500 or 1:250. The purpose of the layout plan is to show the detail of the proposed service to be located through the existing culvert, also existing other and affected services and the detail of the proposed relocation on the background of road geometry and topographical detail, property descriptions and the extent of existing and future road reserves. The following information, as applicable, shall be shown on the Layout Plan:

- a. Existing services include electrical, telecommunications, water, sewerage, stormwater-systems. Tabulate the points of change in alignment of all services and fully describe the type of service and name the responsible authority or name of owners. Refer to Service Enquiry mentioned in Section 2.
- b. The proposed service shall be distinguishable from existing infrastructure and be labelled clearly. Similarly for proposed locations of other services to be relocated.
- c. Indicate any physical obstacles in the vicinity of the proposed service(s), such as trees, road signs and all other existing services.
- d. Existing and planned road reserves, community council and cadastral boundaries, servitudes and property descriptions, rivers, water courses and their names.
- e. The road geometry shall be displayed, with chainages on the centre line relative to the distance markers for future and existing roads. Provide road numbers, street names and destinations.
- f. Provide full dimensions of road surface (road prism) and reserve widths. The distance between the centreline of the service and the line of the road reserve, as well as the edge of the road surfacing shall be shown.
- g. North arrow and scale.
- h. Bench mark for levels.

5.4 Road Cross-Sections on Position of Service Crossing

Where the service crosses the road reserve underground and through the culvert, a cross-section of the road reserve shall indicate the following:

a. A level survey shall be undertaken of the entire length of the cross-section at the position of the future service. The levels shall be given on the plan of the cross-section.



- b. Ensure that the levels on the road centre line, edge of surfacing and shoulders of the existing roadway are given.
- c. Present and future (if applicable) road reserve boundary.
- d. Full detail drawing of the proposed pipe sleeve inside the culvert, indicating the contained service. All details pertaining to the access pits in the road reserve shall be provided (if applicable).
- e. Position and levels (top of sleeve / service) as well as full description of existing services intersected by the path of the proposed service.
- f. Underground services shall be installed according to the standard guidelines of Roads Directorate (refer to "Preferred Utility Service Locations").

5.5 Structural Plans

These plans shall show general specifications of all proposed structures e.g. design notes, class of concrete, finish on concrete or masonry surfaces, provision of drainage, etc. Reinforcing details shall also be shown for structural concrete.

5.6 Temporary Road Signage at Road Works

Road signs and barriers shall be provided for the duration of the works and shall be removed once the works have been fully completed and no danger exists to road users.

6 STANDARD DOCUMENTATION

6.1 Storm-water

a. Refer to Roads Directorate's Hydrology and Drainage of the Roadway Prism.

6.2 Jacking, Drilling and Open Trenches

a. Refer to Guideline for Jacking, Drilling and Open Trench Excavations.

6.3 General Information on Wayleaves

a. Refer to General Information on Wayleaves.

6.4 Service Locations

a. Refer to Preferred Utility Service Locations.

7 GENERAL GUIDELINES AND CONDITIONS TO THE DESIGNER

- a. It is a requirement of this application that other means of crossing should be investigated rather than installing services through an existing culvert. These, among others, include:
 - i. Avoid crossing the road with the service.
 - ii. Overhead crossing by means of a new or existing bridge.
 - iii. Together with another service through an existing culvert.
 - iv. Jacking / drilling a casing under the road prism.
 - v. Digging a trench through the road prism and placing the service casing in it. Digging a trench through paved roads will only be considered if the traffic volume is less than 1000 vehicles per day under exceptional circumstances and even then only in cases where methods i to iv above are not suitable.

Only after all the above methods have been found to be unsuitable can crossing a road through an existing culvert be considered. Economic considerations will only apply if the costs involved in crossing the road through one of the above methods constitute a considerable proportion of supplying the complete service scheme.

- b. Services crossing a gravel road are normally not permitted to run through drainage culverts.
- c. No service is permitted through a drainage culvert with a diameter of less than 600 mm or a drainage culvert with internal dimensions of less than 450 x 600 mm.
- d. The cross-sectional area of the service casing, or if it is encased in concrete, the total cross-sectional area of the concrete casing and the service casing may not be more than 1.5% of the drainage culvert's internal cross-sectional area.
- e. Should the 1.5% mentioned in paragraph d be exceeded, the applicant shall submit run-off figures calculated by a representative engineer to evaluate the risk attached to the smaller opening.

8 **GENERAL PRINCIPLES**

8.1 General Principles Applicable to the Design of the Service Through the Culvert

- a. Loose objects such as sand, gravel, stones, branches, grass, etc. brought by the storm-water, must not be able to snag on the service casing.
- b. The service casing shall not hamper the cleaning of the culvert and neither shall it be dangerous to the workers.
- c. The service casing shall give good protection to the service, especially where it enters and exits the culvert.



- d. The service shall be protected against maintenance work from the road reserve boundary up to the culvert entrance / exit.
- e. The design shall be such that, should it fail, it will cause no damage to the road.
- f. Crossing through a portal culvert with a height of less than or equal to 1.2 metres and all pipe culverts:
 - i. Type of casing: Only galvanised steel pipes or protected steel pipes meeting the relevant SABS specification is allowed. The casing shall have no joints, but may have internal joints so that it still has a smooth external surface.
 - ii. Position of the service in the culvert: On the bottom of a pipe culvert or in one of the bottom corners of a portal culvert.
 - iii. Fastening of casing in the culvert: Fastening of the casing or pipe inside the drainage culvert is not allowed.
- g. Crossing through a portal drainage culvert higher than 1.2 metres:
 - i. Type of casing: Only galvanised steel pipes or protected steel pipes meeting the relevant SABS specification is allowed. The casing or pipe shall have no joints, but may have internal joints so that it still has a smooth external surface if the service casing is not encased in concrete.
 - ii. Position within the culvert: In one of the bottom corners of a portal culvert.
 - iii. Fastening of casing in the culvert: Clamps may be used to fasten the casing to the culvert, but then it must be encased in concrete.
 - iv. Encasing in concrete: Class 1:4:4 concrete with a minimum coverage of 50 mm is desired.
- h. Crossing through a culvert not used exclusively for drainage:
 - i. Type of casing: If the casing is not encased in concrete, only galvanised steel pipes or protected steel pipes meeting the relevant SABS specification is allowed. If the casing is encased in concrete any suitable casing meeting the relevant SABS specification may be used.
 - ii. Position: In one of the bottom corners provided it does not cause an obstruction for traffic or pedestrians, otherwise in one of the top corners.
 - iii. Fastening to culvert: Clamps may be used to fasten the casing to the culvert.
 - iv. Encasing in concrete: Class 1:4:4 concrete with a minimum coverage of 50 mm is required.

8.2 Details at the Entrance and Exit to the Culvert

The service casing or pipe shall go underground at a suitable position right next to the culvert's entrance and exit.

8.3 Crossing the Road Reserve Portion at Both Ends of the Culvert

The service shall be placed in a casing which shall not be in a stream bed to and from the culvert. The depth at which the casing shall be laid depends on the strength of the casing pipe but shall not be less than a metre under the surface. The weaker the casing pipe, the deeper it shall be laid below the surface.

8.4 Surface Markers

The route of the underground portion of the service within the road reserve shall be indicated by surface markers.

9 **RISK AND LIABILITY**

9.1 Change to Service Due to Road Works

If at any stage deemed necessary by the Roads Directorate to move the service through an existing culvert due to road works within the road reserve or building restriction area, the service's owner shall be responsible for its timely removal and the costs involved in this regard.

9.2 Damage to Service

The placement of services shall take place strictly in accordance with plans and specifications. Unless negligence on the part of Roads Directorate or its officials, agents or contractors can be proved, the Roads Directorate shall not be liable for any damage to the service by road works or traffic or any other occurrence.

9.3 Damage to Road

The service's owner shall be responsible for any damage caused to the road resulting from the erection or presence of the service in the road reserve and building restriction area.

9.4 Third Party Claims

The Roads Directorate shall be indemnified against any claim for damages and legal costs instituted by any person resulting from the erection or presence of the service in the road reserve and building restriction area.

NOTE: Roads Directorate reserves the right to alter, delete or add to the contents of this guideline without prior warning or notification.



Notes

GUIDELINE FOR MANAGEMENT OF THE ROAD RESERVE

APPLICATION GUIDELINE FOR UTILITY SERVICES

Notes



ROADS DIRECTORATE

APPLICATION GUIDELINE FOR UTILITY SERVICES ALONG AND ACROSS A ROAD RESERVE AND THROUGH CULVERTS





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