



**KWAZULU-NATAL PROVINCE**

TRANSPORT  
REPUBLIC OF SOUTH AFRICA

**DIRECTORATE: CORPORATE SERVICES: ENGINEERING SERVICES**

Private Bag X02, Merebank, 4059

Transport Infrastructure and Regional Services, Durban Region

Siakot Crescent, Merebank, 4059  
Tel: 031 469 8900 Fax: 031 469 0150

Enquiries: Mr SP Zungu  
Email sandile.zungu@kzntransport.gov.za

Reference : 4261  
Your Ref : EWS #01-2024-ONCR  
Enquiries : Mr. S.P ZUNGU  
Date : 24/01/2025

ETHEKWINI WATER AND SANITATION UNIT  
3 PRIOR ROAD  
Durban  
4001

DEAR SIR/MADAM

**ENCROACHMENT CONSENT NO: 4261**

| DESCRIPTION                 | QUANTITY  | AMOUNT |
|-----------------------------|-----------|--------|
| APPLICATION FEE             | -         | R90-00 |
| RESTORATION FEE @ R80-00/M2 | -         | -      |
|                             | TOTAL DUE | R90-00 |

CHEQUE MUST BE MADE PAYABLE TO THE DEPARTMENT OF TRANSPORT

**TERMS**  
PAYABLE ON ACCEPTANCE OF SPECIAL CONDITIONS AND GENERAL  
CONDITIONS PRIOR TO COMMENCEMENT OF WORK



**KWAZULU-NATAL PROVINCE**  
**TRANSPORT**  
REPUBLIC OF SOUTH AFRICA

Private Bag X02, Merebank, 4059

Transport Infrastructure and Regional Services, Durban Region

Sallkot Crescent, Merebank, 4052  
Tel: 031 4622234/4698900 Fax: 031 4690150

Enquiries: Mr. S.P. Zungu  
Email: sandile.zungu@Kzntransport.gov.za

Reference: 4261  
Your Ref: EWS #01-2024-ONCR  
Enquiries: Mr. S.P. Zungu  
Date : 21/01/2025

ETHEKWINI WATER AND SANITATION UNIT(EWS)  
3 PRIOR ROAD  
DURBAN  
4001

DEAR SIR/MADAM,

**ENCROACHMENT CONSENT NO. 4261**

YOUR APPLICATION IN RESPECT OF THE ABOVE REFERS.

The attached approved Application and Consent form is forwarded to you for completion of items 29, 30 and 31. Approval is given only for Department of transport road P94.

Please sign the plans as well as the Application and Consent form/s, thereby signifying your acceptance of the conditions as laid down and return the set to the address below.

A R90-00 application fee is required. **Cheque must be made payable to the KwaZulu-Natal Department of Transport.**

Yours faithfully

CHIEF ENGINEER: DURBAN

2025 -01- 23  
DATE

**APPROVED**



**WATER & SANITATION UNIT  
ENGINEERING DEPARTMENT  
WATER DESIGN BRANCH**

3 Prior Road, 4001  
P.O. Box 1038, Durban, 4000  
Tel: 031 311 1111, Fax: 031 311 8549  
[www.durban.gov.za](http://www.durban.gov.za)

Our ref : EWS #02-2024-M41  
Date : 14 November 2024  
Enquiries : Lungelo khomo  
Tel No : 031-311 8170  
Email : Lungelo.khomo@durban.gov.za

TO: DEPARTMENT OF TRANSPORT

**ATTENTION: SANDILE ZUNGU**

**BLACKBURN RESERVOIR TO PHOENIX 1 LL SUPPLY ZONE – WARD 35, 48, & 102 – PROPOSED 500, 400, & 300mm Ø STEEL WATERMAIN CROSSING D.O.T ROAD RESERVE: M41 HIGHWAY**

Application to construct 500, 400, & 300mm Ø Steel Trunk Watermain crossing D.O.T. Road Reserve at M41 Highway. Please find attached 3 drawings, 3 copies of each crossing M41 Highway of the proposed Steel Watermain, crossing D.O.T.

The purpose of the proposed watermain is to bring in needed Water to the existing reservoir supply zone of Phoenix 1 reservoir as the existing water pipeline cannot cope with the demand.

The road crossing will be in a concrete sleeve of 1.2m diameter and will be situated 2.4m below the road layer works.

We kindly request approval for the above plan and comments were deemed necessary.

I trust that you find the above in order.

Yours faithfully

Lungelo Khomo [Civil Engineer]

C: 07 3030 8585

T: 031 311 8170

E: Lungelo.khomo@durban.gov.za



Page 2 of 2  
GENERAL INFORMATION

|                                  |                |                           |               |              |
|----------------------------------|----------------|---------------------------|---------------|--------------|
| 11. Work Performed By Own Forces |                | Contractor                | X             | (Insert 'X') |
| 12. Estimated Starting Date      | September 2025 | Estimated Completion Date | November 2025 |              |

**LOCATION OF SERVICES WITHIN THE ROAD RESERVE**

|                           |  |   |             |
|---------------------------|--|---|-------------|
| 14.<br>Km Dist To Km Dist | 15.<br>Distance from Road Reserve Boundary (L&R) | 16. Buried Cable / Pipe / Pole Line / Other |             |
|                           |  | Depth / Height                              | Size & Type |
|                           | 1m from Road reserve                             | 2.4m  | DN500 Steel |

**LOCATION OF SERVICES CROSSING THE ROAD RESERVE**

|                 |  |                              |   |                          |
|-----------------|--|------------------------------|---|--------------------------|
| 17.<br>Km Dist. | 18. Buried Cable / Pipe / Pole Line or Other |                              | 19.<br>Size Type & Class of Sleeve / Duct | 20.<br>Road Surface Type |
|                 | Depth / Height (m)                           | Size & Type                  |   |                          |
|                 | 2.4m below the road                          | 1.2 diameter concrete sleeve |   |                          |

|  |   |   |
|--|---|---|
| Underground crossings - Indicate Trench / Jack (T/J) | J | The Concrete sleeve is to be 1.2 in diameter, located 2.4m below the road. The two jacking pits are to be located on either side of the jack sleeve and to be of dimension of 3 x 5 x 2.4m deep |
| Is reinstatement to be carried out by DOT (Y/N)      | N | N/A   |

**LOCATION OF SERVICES ON STRUCTURES**

|             |               |          |  |
|-------------|---------------|----------|--|
| 21. Km Dist | 22. Bridge No | 23. Name | Attach 3 copies of drawings indicating proposed location and method of fixing to the structure |
|             |               |          |  |

**FOR OFFICE USE**

|   |  |                     |         |
|---|--|---------------------|---------|
| 24. Restoration Fee                       | N/A  | 25. Application Fee | R 90-00 |
| 26. Performance Guarantee Required Yes/No | N  | 27. Amount          | R 90-00 |
| 28. Special Conditions                    | SD1,7,8,9.SB1,3,3.1.3.2,4,5,6,8,9,10,11,12,12, |                     |         |

**SIGN ONLY ONCE THE CONDITIONS HAVE BEEN COMMUNICATED TO THE APPLICANT AS PER SECTION 28**

|  |                       |
|--|-----------------------|
| <b>THE UNDERSIGNED AGREES THAT THE WORK WILL BE UNDERTAKEN IN ACCORDANCE WITH THE GENERAL CONDITIONS AND THE SPECIAL CONDITIONS ATTACHED HERETO.</b> |                       |
| 29. Authorized Signature :                                        | 30. Date : 27/01/2025 |
| 31. Name and Title : <b>DHIVESHANI NAIDU</b>   |                       |

## GENERAL CONDITIONS : SERVICES IN ROAD RESERVE

## GENERAL

- G1 The consent shall lapse, if the work described on the application has not been carried out within a period of eighteen months from the date of authorization, unless the applicant has submitted timeously a written request for an extension of time.
- G2 The Regional Engineer shall be advised of the applicants work programme at least ten days prior to the proposed date of commencement.
- G3 The work shall not commence until all the general and special conditions are fully understood and accepted.
- G4 The Branch reserves the right to inspect the facility during such period as deemed necessary to check compliance with and to require correction of, deviations from the agreed terms and conditions of the consent. Any changes or deviations from the approved drawings must receive the prior approval of the Regional Engineer.
- G5 The Branch may assign an official to inspect the work. Such inspections by the Branch shall in no way relieve the service owner of any duty or responsibility nor shall such inspection absolve the service owner from any liability for loss, damage, or as provided in these conditions.
- G6 A copy of the application and consent form with the approved plans must be retained by the applicant's supervisor during the installation of the service.
- G7 All work authorized by the consent shall be done in a neat and workmanlike manner to the entire satisfaction of the Branch.  
The construction or maintenance work on the services shall conform in all respects to the authorized plans and details submitted to the Branch or to any subsequent amendments specified by the Regional Engineer.
- G8 All installations shall be located so as to permit the maintenance of the new installation as well as any other installations already existing in the road reserve.
- G9 On completion of the installation the approved drawings shall be checked and amended according to any on-site changes. Three copies of the "as built" drawings are to be submitted within three months to the Regional Engineer for record purposes.  
Where there are no changes or deviations from the approved drawings the Regional Engineer is also to be notified accordingly in writing within three months.
- G10 Decommissioned and obsolete services, installations and structures shall be removed from the road reserve unless the Branch has authorized otherwise.
- G11 The Branch reserves the right to request at any time the relocation of the services and installations in the road reserve for the purpose of carrying out roadworks.  
The service owner shall, upon receiving written notice from the Branch, make arrangements to have the installations relocated within a reasonable period of time and shall be responsible for the cost thereof.

## GENERAL CONDITIONS : SERVICES IN ROAD RESERVE

## SAFETY

- G12** During the initial installation or construction of the facilities or during the repair, removal, relocation, maintenance or any other miscellaneous operations, all necessary barricades, suitable and sufficient lights, danger signals, signs and other traffic control devices shall be erected and maintained and all necessary precautions for the protection of the work and safety of the public shall be taken. This work shall be carried out in consultation with and to the satisfaction of the Regional Engineer and the local or provincial traffic enforcement agency.
- G13** Work shall be planned so that closure of lanes, intersecting roads and accesses is kept to a minimum. At no time shall the road be entirely closed. All traffic control and safety devices used for the protection of the work areas shall conform with the approved plans.

## ENVIRONMENT

- G14** The spraying with selective herbicides and the cutting or removing of any substantial trees or shrubs growing in the road reserve shall not be permitted unless prior authority or instruction to do so has been obtained from the Regional Engineer. Clearing of trees, bush and other vegetation shall be kept to a minimum.
- G15** Damaged and destroyed vegetation shall be cleared from the road reserve and disposed of without undue delay. No burning shall be permitted without the written authority of the Regional Engineer.
- G16** Soil which has been excavated during construction and not used shall be evenly spread over the disturbed area or removed from the site. The topsoil shall be replaced and appropriate vegetation shall be planted to avoid creating a condition that would lead to soil erosion.
- G17** The service owner shall not pollute any streams, wetlands or dams with fuels, oils, asphalt, silt, or other harmful materials. Drainage and irrigation facilities, if disturbed, shall be restored to a satisfactory condition without delay.

## RESPONSIBILITY FOR DAMAGE

- G18** The service owner shall indemnify and hold harmless the Branch, its officers, and employees from all suits, actions, or claims of any character brought because of injuries or damages received or sustained by any person, operations of the service owner or its contractors or on account of or in consequence of any neglect in safeguarding the work, or through the use of unacceptable materials or because of any act or persons, or property caused by the neglect or misconduct of the service owner or its contractors when such injury or damage arises out of the construction, installation, maintenance, repair, removal, relocation, operation or use of the facility covered by the consent.
- G19** The service owner shall be responsible for the preservation of all public and private property and shall be responsible for the reinstatement of any damaged driveways and accesses.
- G20** The service owner shall protect reference pegs and property beacons from disturbance or damage and shall be held liable for any such damage arising from its occupation of the road reserve.
- G21** Any roadworks or structures or parts thereof destroyed or damaged by any action of the service owner or his representatives shall be restored by the Branch, the costs thereof shall be borne by the service owner.
- G22** The Department shall not be liable for any costs incurred by the service owner arising from damage to installations in the road reserve as a result of activities relating to road maintenance and construction provided damage is not as a result of negligence and or failure on the part of the Branch to establish the existence of underground services.

## MAINTENANCE

- G23** The service owner shall be responsible for maintaining the services and the associated installations, appurtenances and structures in the road reserve in a condition acceptable to the Branch.
- G24** Access to service installations under traffic lanes or ramps may be permitted if an extreme emergency exists and repairs are needed for the immediate protection of property and persons or prevention of injury. The Regional Engineer shall be notified for the emergency as soon as possible.
- G25** In cases when direct access to the authorized facilities is permitted, no vehicular traffic movement shall be tolerated which would be contrary to normal traffic movement.

Such permission will only be granted for the time when repairs are being made. Every precaution shall be taken during such periods to safeguard the road user.

## SPECIAL CONDITIONS : SERVICES CROSSINGS

- SB1** The service owner shall be responsible for the costs of providing ducts. The Branch will install ducts during road construction where it is convenient to do so, provided the costs are borne by the service owner and provided that timeous notice of their requirements is received.
- SB2** Installations by trenching shall comply with the following:
- SB2.1** Trenches shall be neatly excavated with vertical faces where soil and depth conditions permit, to a maximum width equivalent to the outside diameter of the duct plus 600mm.  
The nominal width of trench excavations shall be equal to the nominal diameter of the pipe duct plus 150mm on each side of the duct.  
Where ducts consist of two or more units, the minimum spacing between the units shall be 75mm and the 150mm side clearance specified above shall apply to the outside units of the group.
- SB2.2** The trench edges in paved areas including the roadway and footways shall be sawn parallel and only wider than the trench excavation limits sufficient to permit the removal of material without damage to the remaining pavement.
- SB2.3** No more than one-half of the travelled way shall be excavated at any one time. The excavated portion shall be completely backfilled before excavating the remaining portion.
- SB2.4** Bedding should consist of a graded granular material, compacted to a firm but yielding surface without abrupt change in bearing capacity. Unstable soils and rock outcrops should be over-excavated from the bedding zone and replaced with suitable material.  
The bottom of the trench should be prepared to provide the pipe with uniform bedding throughout the length of the installation.
- SB2.5** The trench shall be backfilled using a stiff mixture of soil cement placed in layers not exceeding 150mm in thickness.  
The mixture shall consist of an approved soil or gravel mixed with 3% of Portland cement and only sufficient water to enable it to be placed and compacted to a minimum density of 95% Mod. AASHTO.
- SB2.6** The aggregate used for soil cement shall preferably be a sandy material but may contain larger particles up to 38mm, and it shall have a plasticity index less than 10. The aggregate shall be obtained from an approved source.
- SB2.7** The soil cement shall be mixed on the site with suitable concrete mixers, and the water and the cement contents shall be carefully controlled.  
The soil cement backfill, on all roads other than gravel roads, shall allow for the following road pavement layers:
- approved crusher run aggregate base material placed in layers not exceeding 150mm thick to a compacted thickness of 300mm or the thickness of the removed base course, whichever is the greater. The material shall be compacted to minimum of 98% Mod. AASHTO.
  - wearing course of approved asphalt placed to a minimum compacted thickness of 40 mm or the thickness of the removed wearing course, whichever is the greater. The surface shall not vary by more than 10mm from the adjacent pavement when measured with a 3m straight edge placed parallel to the road edge.
- SB2.8** Soil cement shall not be used for backfilling adjacent to corrugated metal culverts. Instead approved gravel or soil shall be used to 100 mm above the pipe followed by the soil cement mixture.
- SB2.9** Backfill outside the roadway prism may consist of excavated material and shall be compacted by tamping or rolling.
- SB3** Installations by jacking, driving or boring shall comply with the following:
- SB3.1** Trenching shall be undertaken no nearer than 1.5 m from the roadway edge if shored and not less than the vertical difference in elevation between the roadway edge and the pipeline if not shored.

**SPECIAL CONDITIONS : SERVICES CROSSINGS**

- SB3.2** Jacking, driving, or boring shall be by approved means keeping disturbances of surrounding material to a minimum. Sluicing or jetting shall not be allowed.  
Sand or cement grout packed in place shall be required where the hole is greater than 5% oversize diameter on pipelines or ducts larger than 300 mm in diameter.
- SB4** The cover depth shall comply with the following minimum requirements:  
1,2 m under the roadway surface  
0,6 m under concrete-lined side drains and channelling  
1,0 m under all other surfaces, including unlined drains
- SB5** All crossings shall be located at, or as near as practically possible, to a right angle edge.
- SB6** Ducts shall extend a minimum of 2 m beyond the toe of the fill slope or the outer edge of the side drain.
- SB7** Split pipes or precast portal culverts and portal culvert bases shall be used for the provision of ducting for existing services which cannot be severed and threaded through the ducts. Where necessary, the pipes shall be accurately cut longitudinally in two halves and opposite halves shall be matched as sawn. Split pipes shall be placed around the service as required and firmly bound by steel straps. Where required they shall be encased in concrete.
- SB8** Where additional ducts are provided for future expansion, duct ends shall be provided with suitable conical wooden stoppers firmly wedged into position to prevent dirt from entering the ducts.  
Two strands, 2,5 mm in diameter, of galvanised steel wire shall be threaded through the duct and stoppers and shall extend 2m beyond each end.
- SB9** Pipes and culverts shall be joined with watertight couplings or joints.
- SB10** The service owner shall place and be responsible for the maintenance of suitable markers at the road reserve boundary where it is crossed by a service, except that vents may serve as markers if suitably located.  
Markers are also required for longitudinal installations at customary intervals along the road reserve boundary.
- SB11** Where marker blocks are used they shall be at least 50mm proud of ground level but not more than 100 mm.
- SB12** Service markers shall be in accordance with the Branch's standards as detailed in Standard Detail SD 1003.
- SB13** Manholes shall not be constructed in the roadway and shall be positioned as close to the road reserve boundary as practically possible.

## SPECIAL CONDITIONS : UNDERGROUND AND OVERHEAD POWER AND TELKOM LINES

- SD1** Installations shall be located as near as possible to the road reserve boundary and shall not be closer to the roadway than other roadside appurtenances and fixtures.  
Particular care shall be exercised when locating overhead installations on the outside of road curves or other similar situations where there is an increased probability of an out of control vehicle leaving the road.
- SD2** All overhead lines shall comply with regulations C.15 and C.20 of the Electrical Machinery Regulations of the Machinery and Occupational Safety Act, 1983 (Act NO. 6 of 1983).
- SD3** The following minimum clearance above the roadway shall apply on all routes other than "abnormal load routes":
- 6,5 m for power transmission lines.  
5,5 m for telecommunication lines.
- SD4** The minimum clearance above the roadway on all "abnormal load routes" shall be 7,5 m.
- SD5** Longitudinal installations of overhead lines in the road reserve shall be limited to the single pole type of construction. All other types shall be positioned outside the road reserve.  
No part of such installation shall be erected within a distance of 20 m of the roadway centre line on both main roads and district roads or within 5 m of the road reserve boundary, whichever is the greater.
- SD6** No pylon or appurtenance associated with high voltage overhead power transmission lines shall be erected within a distance of 35 m of the roadway centre line.
- SD7** The minimum cover depth for longitudinal underground installations shall be 1,0 m for all conditions, except where it is difficult to clear drainage facilities or similar obstructions.  
In such cases the cover may be reduced to 0,6 m. In extreme cases where the cover is less than 0,6 m, a duct must be provided.
- SD8** Underground cable crossings shall be identified by placing and maintaining appropriate standard warning signs on the road reserve boundary.
- SD9** Underground longitudinal installations shall be identified by placing and maintaining standard warning signs at 250 m intervals along the road reserve boundary.