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No. 200 Munisipaliteit van Mariental: Dreinerings- en Rioleringsregulasies 696

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Goewermentskennisgewing

Die volgende Goewermentskennisgewing word vir algemene inligting gepubliseer.

J. F. GREEBE
Waarnemende Sekretaris van Suidwes-Afrika

Administrasie van Suidwes-Afrika
Windhoek.

MUNISIPALITEIT VAN MARIENTAL DREINERINGS- EN RIOLERINGSREGULASIES

Die Uitvoerende Komitee het kragtens en ingevolge die bepalings van artikel 243 van die Munisipale Ordonnansie 1963 (Ordonnansie 13 van 1963) die volgende regulasies goedgekeur.

WOORDBEPALING EN VERTOLKING

(1) WOORDBEPALING. In die regulasies wat in hierdie hoofstuk vervat is, tensy dit uit die samehang anders blyk, het die volgende woorde en uitdrukkings die betekenisse wat hierby daaraan geheg word:

Aansluiter beteken 'n pypaansluiter om 'n privaatriool of privaatvuilriool of 'n verbinding van sodanige riool of vuilriool te ontvang.

Government Notice

The following Government Notice is published for general information.

J. F. GREEBE,
Acting Secretary for South West Africa

Administration of South West Africa
Windhoek.

MUNICIPALITY OF MARIENTAL DRAINAGE AND SEWERAGE REGULATIONS

The Executive Committee has under and by virtue of the provisions of section 243 of the Municipal Ordinance, 1963 (Ordinance 13 of 1963) approved the following regulations.

1. DEFINITIONS AND INTERPRETATION

(1) DEFINITIONS. In the regulations contained in this chapter, unless inconsistent with the context, the following words and expressions have the meanings hereby assigned to them:

Anti-siphon pipe means any pipe provided in conjunction with a trap in the sanitary fitting to prevent unsealing of the trap by siphonage or back pressure.

Besigheidsgebou beteken 'n gebou wat vir besigheidstransaksies of vir die lewering van professionele dienste gebruik word, en omvat 'n gebou wat vir die vertoon of verkoop van goedere, koopware of handelsware of vir die verrigting van werk of arbeid geokkupeer word. Sonder om die bestek van hierdie woordbepaling enigsins te beperk, sluit *besigheidsgebou* die volgende in —

bakkerye	petrolvulstasies
banke	radiostasies
elektriese substasies	restaurante
fabrieke	suiwelfabrieke
kafees	telefoonsentrales
kantoorgeboue	wasserye
kraginstallasies	werkswinkels
laboratoriums	ysfabrieke

Drekwater beteken vloeistof wat ekskreta bevat en deur drekwatertoebehore afgevoer word.

Drekwatertoebehore beteken alle toebehore wat regstreeks met die afvoer van drekwater in verband staan en omvat spoelklosette, urinale, bidette, vuilwatertregters en soortgelyke toebehore.

Eenpypstelsel beteken die pypleidingstelsel tussen sanitêre toebehore en 'n privaatvuilriool waarin sowel die vuil- as die drekwater toegelaat word om deur 'n gemeenskaplike stampyp af te loop.

Enkelstampypstelsel. Kyk *eenpypstelsel.*

Gekombineerde privaatvuilriool beteken 'n vuilriool (uitgesonderd vuilpype, vuilwaterpype en rioollugpype) vir die afvoer van rioolvuil vanaf twee of meer privaatvuilriole na 'n openbare vuilriool, riooltenk of ander houer, en omvat alle ander dinge wat in verband daarmee nodig is.

Inrigting beteken 'n gebou wat hoofsaaklik gebruik word om persone te huisves wat geneeskundige, liefdadige of ander versorging of behandeling ontvang of waarin persone teen hulle wil aangehou word. Sonder om die bestek van hierdie woordbepaling enigsins te beperk, *sluit inrigting* die volgende in —

hospitale	siekehuise
kinderbewaarplekke	sielsieke-inrigtings
kleuterskole	strafinrigtings
kraaminrigtings	verbeteringsgestigte
ouetehuise	verbeteringshuise
polisiestasies	verpleeginrigtings
sanatoriums	weeshuise

Loodgieterswerk beteken werk met betrekking tot die installering, verandering, herstel of instandhouding van 'n loodgietwerkstelsel.

Loodgietwerkstelsel beteken die pypleidingstelsel vir die deurvoer van water binne die grense van 'n perseel na die verskillende sanitêre toebehore op sodanige perseel en vir die afvoer van vuilwater, drekwater of ander afvalvloeistowwe na die privaatvuilriool of gekombineerde privaatvuilriool, na gelang van die geval.

Business building means any building occupied for the transaction of business or for the rendering of professional services and includes any building occupied for the display or sale of goods, wares, or merchandise or for the performance of work or labour. Without in any way limiting the scope of this definition, *business building* includes —

bakeries	laundries
banks	office buildings
cafés	petrol filling stations
creameries	power plants
electricity substations	radio stations
factories	restaurants
ice-plants	telephone exchanges
laboratories	workshops

Combined private sewer means a sewer (exclusive of soil pipes, waste pipes, and vent pipes) for the purpose of conveying to a public sewer, conserving tank, or other receptacle the sewage from two or more private sewers and includes all other things necessary in connection therewith.

Conserving tank means any covered tank without overflow which is used for the reception and temporary retention of sewage and which requires emptying at intervals.

Institutional building means any building primarily used for housing persons receiving medical, charitable, or other care or treatment or in which persons are involuntarily detained. Without in any way limiting the scope of this definition, *institutional building* includes —

crèches	nursery schools
homes for the aged	nursing homes
hospitals	orphanages
houses of correction	penal institutions
infirmaries	police stations
maternity homes	reformatories
mental hospitals	sanatoria

Junction means a pipe junction for the purpose of receiving a private drain or private sewer or a connection from such drain or sewer.

One-pipe system means the system of piping between sanitary fittings and a private sewer, in which both waste and soil water are permitted to flow down a common stack.

Plumbing system means the system for the conveyance of the water supply within the boundary of any premises to the various sanitary fittings on such premises and for the conveyance of waste water, soil water, or other waste liquid to the private sewer or combined private sewer as the case may be.

Plumbing work means work in connection with the installation, alteration, repair, or maintenance of a plumbing system.

Private drain means a conduit for the conveyance of storm, surface, subsoil, spring, or rain water from one premise to a public drain.

Private sewer means a sewer (exclusive of waste pipes, soil pipes, or vent pipes) for the purpose of con-

Openbare gebou beteken 'n gebou wat gebruik word of bedoel is om gebruik te word deur persone wat vir burgerlike, politieke, opvoedkundige, godsdienstige, kulturele, sosiale, ontspannings- of sportdoeleindes byeenkom. Sonder om die bestek van hierdie woordbepaling enigsins te beperk, sluit *openbare gebou* die volgende in —

arsenale	groot pawiljoene	passasierstasies
badhuisies	kegelbane	skaatsbane
biblioteke	klubkamers	stadions
bioskope	kolleges en skole	stadsale
danssale	(nie-residensieel)	teaters
drillokale	lesingsale	tentoonstellingsgeboue
gehoorsale	museums	vergadersale
geregshowe	openbare swem-	waghuisies
gimnasiums	baddens	

Openbare riool beteken 'n leipyp wat berus by of onder die beheer is van of gebruik word deur die Plaaslike Bestuur vir die afvoer van storm-, oppervlak-, ondergrondse, fontein- of reënwater, en omvat alle dinge wat in verband daarmee nodig is.

Openbare vuilriool beteken 'n vuilriool wat berus by of onder beheer is van of gebruik word deur die Plaaslike Bestuur en waarin die rioolvuil vanaf privaatvuilriole of gekombineerde privaatvuilriole afgevoer word of bedoel is om afgevoer te word, en omvat pype, mangate, kamers, ventilasieskagte, uitwerpers, sluise en alle ander dinge wat in verband daarmee nodig is.

Privaatriool beteken 'n leipyp vir die afvoer van storm-, oppervlak-, ondergrondse, fontein- of reënwater van een perseel na 'n openbare riool.

Privaatvuilriool beteken 'n vuilriool (uitgesonderd vuilwaterpype, vuilpype of rioollugpype) vir die afvoer van rioolvuil van een perseel na 'n gekombineerde privaatvuilriool, 'n openbare vuilriool, riooltenk of ander houer, en omvat alle ander dinge wat in verband daarmee nodig is.

Rioleringswerk beteken werk in verband met die installering, instandhouding, verandering of herstel van privaatvuilriole maar moet nie werk op sanitêre toebehore, stampype, reënwaterpype of reënwatergeute insluit nie.

Rioollugpyp beteken 'n pyp of gedeelte van 'n pyp wat vertikaal of skuins bevestig is en uitsluitlik bedoel is om 'n rioolstelsel te ontlug en hewelwerking by sperders of teendruk te voorkom.

Riooltenk beteken 'n bedekte tenk sonder oorloop wat gebruik word om rioolvuil op te vang en tydelik te hou, en wat met tussenpose leeg gemaak moet word.

Rioolvuil beteken vuilwater, drekwater of ander afvalvloeistowwe, uitgesonderd die water wat in die omskrywing van *privaatriool* en *openbare riool* genoem word.

veying to a combined private sewer, a public sewer, conserving tank, or other receptacle the sewage from one premises and includes all other things necessary in connection therewith.

Public building means any building used or intended to be used by persons congregating for civic, political, educational, religious, cultural, social, or recreational purposes or for purposes of sport. Without in any way limiting the scope of this definition, *public building* includes —

armories	colleges and schools	libraries
assembly halls	(non-residential)	lodge rooms
auditoria	court houses	public swimming baths
bath houses	dance halls	museums
bowling alleys	drill halls	passenger stations
cinemas	exhibition buildings	skating rinks
city or town	grandstands	stadia
halls	gymnasia	theatres
club rooms	lecture halls	

Public drain means a conduit vested in, or under the control of, or used by, the Local Authority for the conveyance of storm, surface, subsoil, spring, or rain water, and includes all things necessary in connection therewith.

Public sewer means a sewer vested in, or under the control of, or used by the Local Authority, into which is discharged or intended to be discharged the sewage from private sewers or combined private sewers and includes pipes, manholes, chambers, ventilating shafts, ejectors, sluices, and all other things necessary in connection therewith.

Residential building means any building other than an *institutional building* which provides sleeping accommodation for persons.

Residential building, without in any way limiting the scope of this definition, includes —

boarding houses	flats	residential clubs
convents	hostels	residential schools
dormitories	hotels	and colleges
dwellings	lodging houses	tenements

Sanitary fitting means a water closet, urinal, bidet, slopsink, bath, wash basin, sink, shower, or other fitting of a like nature for the reception and disposal to a soil pipe or waste pipe of soil-water or waste water, as the case may be.

Septic tank means any covered tank complete with baffles and effluent overflow to receive sewage and designed to retain such sewage for such a time and in such a manner as to secure adequate decomposition of organic solids by bacterial action.

Sewage means waste water, soil water, or other liquid waste excluding the water mentioned in the definitions of *private drain* and *public drain*.

Sanitêre toebehore beteken 'n spoelkloset, urinaal, bidet, vuilwaterbak, bad, wasbak, opwasbak, stortbad of ander soortgelyke toebehore vir die opvang en afvoer van drekwater of vuilwater na 'n vuilpyp of vuilwaterpyp, na gelang van die geval.

Septiese tenk beteken 'n bedekte tenk, volledig met skotte en 'n uitvloei-oorloop, om rioolvuil op te vang. en wat ontwerp is om sodanige rioolvuil vir so lank en op so 'n wyse te bewaar dat behoorlike ontbinding van organiese vaste stowwe deur bakteriewerking kan plaasvind.

Slukpyp beteken 'n pyp wat saam met 'n sperder in die sanitêre toebehore aangebring word om te voorkom dat die sperder deur hewelwerking of teendruk oopgaan.

Sperder beteken 'n pyp of toebehore wat so gebuig of gevorm is dat daar 'n hoeveelheid vloeistof in bly staan waarvan 'n gedeelte 'n seël of versperring vorm wat verhinder dat lug of gas ontsnap.

Stampyp beteken 'n vertikale of skuins leiding van vuilwater- of vuilpype of 'n kombinasie van die twee en die takke wat daarmee verbind is wat die vloeistof uit vuilwater- of vuilpype na 'n rioolputsperder, kanaal of vuilriool voer en omvat enige rioollugpyp wat in verband daarmee gebruik word.

Tweepypstelsel beteken 'n pypleidingstelsel tussen sanitêre toebehore en 'n privaatvuilriool of gekombineerde privaatvuilriool, waarin afsonderlike stampype vir vuil- en drekwater gebruik word en waarin vuilwaterpype oor 'n rioolput met 'n sperder uitmond en afsonderlike rioollugpype het voordat hulle by 'n privaat- of gekombineerde privaatvuilriool aansluit.

Vuilpyp beteken 'n pyp vir die afvoer van drekwater vanaf die sperder of uitlaat van drekwatertoebehore na 'n privaatvuilriool of 'n gekombineerde privaatvuilriool.

Vuilriool beteken 'n ondergrondse pyp wat gebruik word vir die afvoer van rioolvuil en omvat alle ander dinge wat in verband daarmee nodig is.

Vuilrioolverbinding beteken dié gedeelte van 'n pyp waardeur 'n privaatvuilriool of gekombineerde privaatvuilriool met 'n openbare vuilriool verbind word en wat by die Plaaslike Bestuur berus.

Vuilwater beteken vloeistof wat geen ekskreta bevat nie en deur vuilwatertoebehore afgevoer word.

Vuilwaterpyp beteken 'n pyp wat aan vuilwatertoebehore verbind is en gebruik word om vuilwater na 'n rioolputsperder, vloergeut of stampyp vir vuil- of drekwater af te voer, maar omvat nie toebehore, 'n rioolput, kanaal of vuilriool waarin sodanige vuilwaterpyp kan uitmond nie.

Vuilwaterriool beteken dié gedeelte van 'n privaatvuilriool of gekombineerde privaatvuilriool wat uit ondergrondse pypleidings bestaan en wat gebruik word of bedoel is om gebruik te word om slegs vuilwater af te voer.

Vuilwatertoebehore beteken alle toebehore wat regstreeks met die afvoer van vuilwater in verband staan

Sewer means an underground pipe used for conveying sewage and includes all other things necessary in connection therewith.

Sewer connection means that portion of a pipe which is provided to connect a private sewer or combined private sewer with a public sewer and which is vested in the Local Authority.

Sewerage work means work in connection with the installation, maintenance, alteration, or repair of private sewers but shall not include work on sanitary fittings, stack pipes, rainwater pipes, or rainwater gutters.

Single stack system. See *one-pipe system.*

Soil pipe means a pipe for conveying soil water from the trap or outlet of a soil-water fitting to a private sewer or combined private sewer.

Soil water means excremental liquid discharged from soil-water fittings.

Soil-water fittings means all fittings directly appurtenant to the discharge of soil water, including water closets, urinals, bidets, slop hoppers, and similar fittings.

Stack means any vertical or inclined line of waste or soil piping or a combination of both and the branches connected thereto, which conveys the flow of liquid from waste or soil pipes to any gully trap, channel, or sewer, including any vent used in connection therewith.

Trade, manufacturing, or industrial effluent means any waste liquid with or without particles of matter suspended therein, which is wholly or in part produced in the course of any trade, manufacturing, or industrial operation.

Trade or industrial premises means any premises used or intended to be used for carrying on any trade manufacture or industry.

Trap means any pipe or fitting so bent or formed that it retains a quantity of liquid, part of which forms a seal or barrier to the passage of air or gas.

Two-pipe system means the system of piping between sanitary fittings and a private sewer or combined private sewer, in which separate stacks are used for waste and soil water, and in which waste pipes discharge over a trapped gully and are separately vented before entering a private or combined private sewer.

Vent or Vent-pipe means any pipe or portion of a pipe fitted vertically or at an incline and provided solely to ventilate a sewerage system and prevent trap siphonage or back pressure.

en omvat baddens, wasbakke, rioolputte, opwasbakke en alle ander toebehore wat 'n soortgelyke doel dien.

Werks-, fabrieks- of nywerheidsuitvloeisel beteken afvalvloeistof, met of sonder vaste deeltjies in suspensie, wat geheel en al of gedeeltelik gevorm word in die loop van 'n werks-, fabrieks- of nywerheidsproses.

Werks- of nywerheidsperseel beteken 'n perseel wat gebruik word of bedoel is om gebruik te word vir werks-, fabrieks- of nywerheidsdoeleindes.

Woongebou beteken 'n gebou, uitgesonderd 'n inrigting, waarin slaapplek vir persone verskaf word.

Sonder om die bestek van hierdie woordbepaling enigsins te beperk, sluit *woongebou* die volgende in—

deelhuise	kloosters	slaapsale
hostelle	losieshuise	woonhuise
hotelle	skole en kolleges	woonklubs
huurkamerhuise	met inwoongeriewe	woonstelle

(2) VERTOLKING VAN ONGESPESIFISEERDE VERWYSINGS. Tensy anders gemeld, word daar geag dat verwysings in hierdie hoofstuk na regulasies of tabelle verwysings na die regulasies en tabelle in hierdie hoofstuk is.

(3) VERWYSINGS NA VUILRIOLE. Tensy dit uit die samehang anders blyk, moet die woord „vuilriool" waar dit in die regulasies in hierdie hoofstuk voorkom, as 'n privaatvuilriool of gekombineerde privaatvuilriool vertolk word.

LISENSIËRING VAN LOODGIETERS EN RIOOLLÊERS

2. VEREISTE LISENSIES

(1) Behoudens die voorbehoudsbepaling in subregulasie (3) van regulasie 4, mag geen persoon enige werk van die soort wat in subregulasie (3) van regulasie 3 of in subregulasie (3) van regulasie 4 beskryf word (uitgesonderd die vervanging en herverpakking van krane en koeëlkleppe en die herinsit van wasters daarin en die skoonmaak van die vuilwaterpyp van sanitêre toebehore) binne die regsgebied van die Plaaslike Bestuur uitvoer, laat uitvoer of toelaat dat dit uitgevoer word of 'n persoon in diens neem om dit uit te voer nie, tensy sodanige eersgenoemde persoon in besit is van 'n loodgieters- of rioollêerslisensie wat aan hom uitgereik is deur die Plaaslike Bestuur, of van 'n voorlopige lisensie wat aan hom uitgereik is deur die Ingenieur in sodanige vorm as wat die Plaaslike Bestuur of die Ingenieur, na gelang van die geval, mag bepaal, en wat onderteken is deur die Ingenieur, waardeur hy gemagtig word om dié gedeelte van sodanige werk waarop die lisensie van toepassing is, uit te voer, en enigeen wat die bepalings van hierdie subregulasie oortree, begaan 'n misdryf.

(2) Subregulasie (1) is nie van toepassing:

(*a*) op 'n werknemer van die Plaaslike Bestuur wat deur die Ingenieur gemagtig is om die soort werk wat in dié subregulasie genoem word, uit te voer nie; of

(*b*) op 'n vakleerling wat nie 'n lisensie soos hierbo beskryf, hou nie maar wat onder toesig van 'n houer van sodanige lisensie werk; of

(*c*) op 'n behoorlik gekwalifiseerde passer wat werk in verband met die installering, verandering, in-

Waste pipe means any pipe connected to any waste water fitting and used for the conveyance of waste water to any gully trap, floor channel, or waste or soil stack, but does not include any fitting, gully, channel, or sewer into which such waste pipe may discharge.

Waste sewer means such part of a private sewer or combined private sewer as comprises underground piping and is used or intended to be used for the conveyance of waste water only.

Waste water means non-excremental liquid discharged from waste water fittings.

Waste water fittings means all fittings directly appurtenant to the discharge of waste water and includes baths, wash basins, gullies, sinks, and all other fittings which subserve a similar purpose.

(2) INTERPRETATION OF UNSPECIFIED REFERENCES. References in this chapter to regulations or tables shall, unless otherwise stated, be deemed to be references to the regulations and tables in this chapter.

(3) REFERENCES TO SEWERS. Where the word "sewer" occurs in the regulations contained in this chapter it shall, unless the contrary intention appears from the context, be construed as meaning a private sewer or combined private sewer.

LICENSING OF PLUMBERS AND DRAIN LAYERS

2. REQUIRED LICENCES

(1) Subject to the proviso to Subregulation (3) of Regulation 4, no person shall carry out and no person shall employ, cause, or permit any person to carry out within the Local Authority's area of jurisdiction any work of the kind described in Subregulation (3) of Regulation 3 or in Subregulation (3) of Regulation 4 (other than the replacement, rewashering, and repacking of taps and ball valves and cleaning the waste pipe of a sanitary fitting) unless such firstmentioned person is in possession of a plumber's or drain layer's licence issued to him by the Local Authority or of a provisional licence issued to him by the Engineer, in such form as the Local Authority or the Engineer as the case may be may decide, and signed by the Engineer authorizing him to carry out that portion of such work as is appropriate to such licence, and any person who contravenes the provisions of this subregulation shall be guilty of an offence.

(2) Subregulation (1) shall not apply—

(*a*) to any employee of the Local Authority who is authorized by the Engineer to carry out work of the kind referred to in that subregulation; nor

(*b*) to any apprentice who does not hold a licence as aforesaid but who is working under the supervision of a holder of such licence; nor

(*c*) to any duly qualified fitter who is carrying out work on the installation, alteration, maintenance,

standhouding of herstel van enige watervoorsieningstelsel of watervoorsieningtoebehore uitvoer nie.

3. AANSOEK OM 'N LOODGIETERSLISENSIE

(1) Elke aansoek om 'n loodgieterslisensie moet skriftelik aan die Plaaslike Bestuur gerig word en moet die aansoeker se volledige name, adres en ouderdom aangee en moet 'n verklaring aangaande sy ervaring en kwalifikasies bevat en moet deur sodanige aansoeker onderteken en gedateer wees.

(2) Behoudens die bepalings van paragraaf (*b*) en (*c*) van hierdie subregulasie, moet 'n aansoeker om 'n loodgieterslisensie ook nog aan die volgende vereistes voldoen:

(*a*) Hy moet, indien die Plaaslike Bestuur dit vereis, 'n eksamen aflê en slaag wat op so 'n wyse en op sulke tye as wat die Plaaslike Bestuur mag goedkeur, gehou word oor sodanige onderwerpe as wat die Plaaslike Bestuur mag vereis, insluitende dié wat in die lys hieronder uiteengesit word—

Materiaal. Kennis oor die gebruik van lood, tin, koper, en legerings daarvan, gegalvaniseerde staalplaat, smee- en gietyster, sagtestaal, erdepype en toebehore, stene, teëls, sement en ander materiaal wat deur die loodgieter of rioollêer gebruik word.

Loodgieterswerk. Die vermoë om werk met betrekking tot soldeersels en soldering, die lê van lood, die maak van pype en lasse, die pas en buig van pype, en reënwatertoebehore en oorslaglasse uit te voer.

Watervoorsieningswerk. Kennis van die Plaaslike Bestuur se Watervoorsieningsregulasies en van algemene watervoorsieningswerk, watervoorsieningstoebehore en warmwaterinstallasies.

Riolerings- en Dreineringswerk. Kennis van die Plaaslike Bestuur se Riolerings- en Dreineringsregulasies en van die aanlê en gebruik van sperders, vuilpype, vuilwater- en rioollugpype, sanitêre toebehore en ander rioleringsapparaat en -toestelle.

Eksamenkandidate vir loodgieterswerk moet hulle eie gereedskap verskaf om enige pyp, buigstuk, las of ander loodgieterstoestel te maak wat vereis mag word om die Eksaminator of Eksaminatore in regulasie 5 genoem, tevrede te stel.

(*b*) Indien hy vyf-en-twintig jaar oud of jonger is, moet hy bewys lewer dat hy 'n vakleerlingskap as loodgieter deurloop het, maar daar sal nie van hom vereis word om die volledige eksamen in paragraaf (*a*) van hierdie subregulasie genoem, af te lê indien hy die kwalifiserende bedryfstoets soos deur die Wet op Vakleerlinge, 1944, soos gewysig, voorgeskryf, en enige regulasies wat kragtens genoemde wet opgestel is, deurgekom het nie. Hy moet egter die Eksaminator of Eksaminatore oortuig dat hy 'n voldoende kennis van die Plaaslike Bestuur se Watervoorsienings- en Riolerings- en Dreineringsregulasies het in soverre laasgenoemde nie slegs op die werk van 'n rioollêer betrekking het nie.

or repair of any water supply system or water supply fitting.

3. APPLICATION FOR A PLUMBER'S LICENCE

(1) Every application for a plumber's licence shall be made in writing to the Local Authority and shall set forth the applicant's full names, address, and age and shall contain a statement of his experience and qualifications and shall be signed and dated by such applicant.

(2) Subject to the provisions of Paragraphs (*b*) and (*c*) of this subregulation, an applicant for a plumber's licence shall in addition comply with the following requirements:

(*a*) He shall if so required by the Local Authority submit himself to and pass an examination to be held in such manner and at such times as the Local Authority may approve and on such subjects as the Local Authority may require, including those set forth in the list appended hereto—

Materials. Knowledge of the use of lead, tin, copper and their alloys, galvanized steel sheeting, wrought and cast iron, mild steel, earthenware pipes and fittings, bricks, tiles, cement and other materials used by the plumber and drain layer.

Plumbing Practice. The ability to perform work connected with solders and soldering, lead-laying, pipe and joint making, pipe fitting and pipe bending, and rain water fittings and flashings.

Water Supply Work. Knowledge of the Local Authority's Water Supply Regulations and of general water supply work, water supply fittings, and hot water installations.

Sewerage and Drainage Work Knowledge of the Local Authority's Sewerage and Drainage Regulations and of the construction and use of traps, soil pipes, waste and vent pipes, sanitary fittings, and other sewerage apparatus and appliances.

Candidates for examination in plumbing practice shall provide their own tools to make any pipe, bend, joint, or other plumbing appliance which may be required to satisfy the Examiner or Examiners referred to in Regulation 5.

(*b*) If he is of the age of twenty-five years or under, he shall submit proof that he has served an apprenticeship as a plumber, but he shall not be required to undergo the full examination referred to in Paragraph (*a*) of this subregulation if he has passed the qualifying trade test prescribed by the Apprenticeship Act, 1944, as amended, and any Regulations framed thereunder. He shall, however, satisfy the Examiner or Examiners that he has an adequate knowledge of the Local Authority's Water Supply and Sewerage and Drainage Regulations in so far as the latter do not relate solely to the work of a drain layer.

(c) Indien hy ouer as vyf-en-twintig jaar is, kan die Plaaslike Bestuur sy aansoek volgens meriete beoordeel en daarbenewens vereis dat hy die eksamen in paragraaf (a) van hierdie subregulasie genoem, aflê.

(3) 'n Loodgieterslisensie gee die houer daarvan die reg om enige werk met betrekking tot die bevestiging, lê, verandering, herstel of verwydering van pype, kleppe, sanitêre toebehore, metaalprivaatvuilriole (met inbegrip van die toets van sodanige vuilriole) of ander apparaat vir die riolering van 'n perseel binne die regsgebied van die Plaaslike Bestuur en in verband met die Plaaslike Bestuur se watervoorsieningstelsel en die toebehore wat daarmee verbind is, uit te voer. Sodanige lisensie gee nie die houer die reg om die werk van 'n rioollêer te doen nie.

4. AANSOEK OM 'N RIOOLLÊERSLISENSIE

(1) Elke aansoek om 'n rioollêerslisensie moet skriftelik aan die Plaaslike Bestuur gerig word en moet die aansoeker se volledige name, adres en ouderdom aangee en moet 'n verklaring aangaande sy ervaring en kwalifikasies bevat en moet deur sodanige aansoeker onderteken en gedateer word.

(2) 'n Aansoeker om 'n rioollêerslisensie moet daarbenewens aan die volgende vereistes voldoen:

(a) Hy moet, indien dit vereis word, 'n eksamen aflê en slaag wat op so 'n wyse en op sulke tye as wat die Plaaslike Bestuur mag goedkeur, gehou word oor sodanige onderwerpe as wat die Plaaslike Bestuur mag vereis, met inbegrip van die volgende: Erde- en betonpype en -toebehore; stene, teëls, sement en ander materiaal wat deur die rioollêer gebruik word; kennis van die Plaaslike Bestuur se Riolerings- en Dreineringsregulasies; die aanlê en gebruik van vetvangers, onderskepsperders, rioolputte, vuilpype en toebehore, inspeksiekamers en bedekkings en toetsapparaat. Hy moet die Eksaminator of Eksaminatore oortuig dat hy in staat is om 'n riolerings- of dreineringstekening te vertolk, om vuilriole of riole te lê, om lasse, aansluiters en inspeksiekamers te maak en die toetse daarop te doen.

(b) Hy moet, indien die Plaaslike Bestuur dit vereis, 'n riolerings- of dreineringsinstallasie (wat nie deel is van dié installasie waaruit die werk van die houer van 'n loodgieterslisensie bestaan nie) tot die tevredenheid van die Eksaminator of Eksaminatore uitvoer op 'n perseel wat hy uitkies.

(3) 'n Rioollêerslisensie gee die houer daarvan die reg om enige werk in verband met die lê, bevestiging, verandering of herstel van vuilriole (uitgesonderd metaalvuilriole) en inspeksiekamers vir riolering van enige perseel binne die regsgebied van die Plaaslike Bestuur te doen: Met dien verstande dat ander ambagsmanne nie verbied word om aan inspeksiekamers te werk nie. Sodanige lisensie gee nie die houer daarvan die reg om loodgieterswerk te verrig nie.

(c) If he is over the age of twenty-five years the Local Authority may deal with his application on its merits and may, in addition, require him to undergo the examination referred to in Paragraph (a) of this subregulation.

(3) A plumber's licence shall entitle the holder thereof to perform any work in connection with the fixing, laying, alteration, repair, or removal of pipes, valves, sanitary fittings, metal private sewers (including the testing of such sewers), or other apparatus for the sewerage of any premises within the Local Authority's area of jurisdiction and in connection with the Local Authority's water supply system and the fittings connected therewith. Such licence shall not entitle the holder thereof to perform the work of a drain layer.

4. APPLICATION FOR A DRAIN LAYER'S LICENCE

(1) Every application for a drain layer's licence shall be made in writing to the Local Authority and shall set forth the applicant's full names, address, and age and shall contain a statement of his experience and qualifications and shall be signed and dated by such applicant.

(2) An applicant for a drain layer's licence shall in addition comply with the following requirements:

(a) He shall, if so required, submit himself to and pass an examination to be held in such manner and at such times as the Local Authority may approve on such subjects as the Local Authority may require including the following: Earthenware and concrete pipes and fittings; bricks, tiles, cement, and other materials used by the drain layer; knowledge of the Local Authority's Sewerage and Drainage Regulations; construction and use of grease traps, intercepting traps, gullies, soil pipes and fittings, inspection chambers, and covers and testing apparatus. He shall satisfy the Examiner or Examiners that he is able to read a sewerage or drainage plan, lay sewers or drains, make joints, junctions, and chambers and make the tests thereof.

(b) He shall, if required by the Local Authority, carry out to the satisfaction of the Examiner or Examiners a sewerage or drainage installation (not being part of such installation as constitutes the work of the holder of a plumber's licence) at premises selected by him.

(3) A drain layer's licence shall entitle the holder thereof to carry out any work in connection with the laying, fixing, altering, or repairing of sewers (other than metal sewers) and chambers for the sewerage of any premises within the Local Authority's area of jurisdiction: Provided that other trades shall not be prohibited from doing work on chambers. Such licence shall not entitle the holder thereof to perform the work of a plumber.

5. AFNEEM VAN EKSAMEN

Die eksamens in paragraaf (*a*) van subregulasie (2) van regulasie 3 en in paragraaf (*a*) van subregulasie (2) van regulasie 4 genoem, moet deur 'n Eksaminator of Eksaminatore wat deur die Plaaslike Bestuur aangestel is, afgeneem word. Hy moet—

(*a*) 'n Ingenieur of ander werknemer van die Plaaslike Bestuur wees wat spesifiek daartoe deur die Plaaslike Bestuur gemagtig is; of

(*b*) 'n persoon wees wat deur 'n Plaaslike Komitee van die National Industrial Council for the Building Industry aanbeveel is en wat sy vakleerlingskap deurloop het, 'n loodgieters- en rioollêerslisensie hou wat deur die Plaaslike Bestuur erken word en wat 'n lid van òf die Master Plumbers' Association òf die Operative Plumbers' Union is; of

(*c*) beide sodanige Ingenieur of ander werknemer en sodanige persoon wat in paragraaf (*b*) van hierdie regulasie genoem word, wees; en

(*d*) die Plaaslike Bestuur se Gesondheidsbeampte (indien daar een is) of 'n persoon wat hy benoem het, wees.

6. VOORLOPIGE LISENSIE

Ondanks andersluidende bepalings wat in die regulasies in hierdie hoofstuk vervat is, kan die Ingenieur aan enige persoon 'n voorlopige loodgieters- of rioollêerslisensie uitreik wat geldig is vir sodanige loodgieters- of rioleringswerk of vir sodanige tydperk (in geen geval vir langer as ses maande nie) as wat die Ingenieur daarin mag spesifiseer.

ERKENNING VAN LISENSIE WAT DEUR 'N ANDER PLAASLIKE BESTUUR TOEGESTAAN IS

'n Aansoek om 'n loodgieters- of rioollêerslisensie wat houdbaar is in die regsgebied van die Plaaslike Bestuur deur 'n persoon wat die houer van 'n geldige loodgieters- of rioollêerslisensie is wat aan hom uitgereik is deur 'n ander Plaaslike Bestuur, kan toegestaan en die nodige lisensie uitgereik word aan sodanige persoon bloot nadat hy sodanige lisensie van 'n ander Plaaslike Bestuur getoon het.

8. TOON VAN LISENSIES

Enige loodgieter of rioollêer moet, wanneer hy deur 'n behoorlik gemagtigde werknemer van die Plaaslike Bestuur daarom gevra word, sy lisensie of 'n afskrif daarvan wat behoorlik deur die Ingenieur gesertifiseer is, ter insae voorlê.

9. OORDRAG VAN LISENSIES

'n Lisensie wat aan 'n loodgieter of rioollêer uitgereik is, is persoonlik en nie oordraagbaar nie.

10. WEIERING VAN AANSOEK OM LISENSIE

'n Persoon vir wie 'n loodgieters- of rioollêerslisensie geweier is, kan teen sodanige weiering appelleer na die Administrateur, wie se besluit finaal is.

5. CONDUCT OF EXAMINATION

The examinations referred to in Paragraph (*a*) of Subregulation (2) of Regulation 3 and in Paragraph (*a*) of Subregulation (2) of Regulation 4 shall be conducted by an Examiner or Examiners appointed by the Local Authority who shall be—

(*a*) the Engineer or other employee of the local Authority specifically authorized thereto by the Local Authority; or

(*b*) a person recommended by a Local Committee of the National Industrial Council for the Building Industry who has served his time as an apprentice, holds a plumber's and a drain layer's licence recognized by the Local Authority, and is a member of either the Master Plumbers' Association or the Operative Plumbers' Union; or

(*c*) both such Engineer or other employee and such person as is mentioned in Paragraph (*b*) of this regulation; and

(*d*) the Local Authority's Medical Officer of Health (if any) or his nominee.

6. PROVISIONAL LICENCE

Notwithstanding anything to the contrary in the regulations contained in this chapter, the Engineer may issue to any person a provisional plumber's or drain layer's licence which shall be valid for such plumbing or sewerage work or for such period (not in any case exceeding six months) as may be specified therein by the Engineer.

7. RECOGNITION OF LICENCE GRANTED BY OTHER LOCAL AUTHORITY

An application for a plumber's or drain layer's licence tenable in the Local Authority's area of jurisdiction by a person who is the holder of a current plumber's or drain layer's licence issued to him by some other Local Authority may be granted and the necessary licence issued to such person upon the mere production by him of such other Local Authority's licence.

8. PRODUCTION OF LICENCES

Any plumber or drain layer shall, when called upon by a duly authorized employee of the Local Authority to do so, produce for inspection his licence or a copy thereof duly certified by the Engineer.

9. TRANSFER OF LICENCES

A plumber's or drain layer's licence shall be personal to the plumber or drain layer to whom it was issued and shall not be transferable.

10. REFUSAL OF APPLICATION FOR LICENCE

Any person to whom a plumber's or drain layer's licence has been refused may appeal against such refusal to the Administrator, whose decision shall be final.

11. LISENSIE KAN INGETREK OF OPGESKORT WORD

Die Plaaslike Bestuur kan te eniger tyd 'n lisensie of voorlopige lisensie wat aan 'n loodgieter of rioollêer toegestaan is, intrek of opskort indien die Plaaslike Bestuur oortuig is dat hy loodgieters- of rioollêerswerk op 'n agtelosige of onvakkundige manier gedoen het tot nadeel van 'n persoon of eiendom, of in stryd met enigeen van die Plaaslike Bestuur se regulasies: Met dien verstande dat daar voor sodanige opskorting of intrekking aan die persoon wie se lisensie die Plaaslike Bestuur voornemens is om op te skort of in te trek, die geleentheid gegee word om voor die Plaaslike Bestuur of 'n komitee daarvan te verskyn om homself te verdedig.

12. LISENSIEGELDE BETAALBAAR[1]

(1) 'n Bedrag van .... moet vir elke lisensie wat die Plaaslike Bestuur aan 'n loodgieter uitreik, betaal word.

(2) 'n Bedrag van .... moet vir elke lisensie wat die Plaaslike Bestuur aan 'n rioollêer uitreik, betaal word.

TOESTEMMING OM LOODGIETERS- EN RIOLERINGSWERK UIT TE VOER: PLANNE EN KENNISGEWINGS

13. VEREISTE TOESTEMMING

Geen persoon mag enige loodgieterswerkstelsel of rioleringswerk begin aanlê, verander, daartoe byvoeg of heraanlê alvorens hy die skriftelike toestemming van die Plaaslike Bestuur onder die hand van die Ingenieur verkry het nie: Met dien verstande dat geen sodanige toestemming vereis word vir die skoonmaak van verstoppings of die herstel van lekplekke in pype en toebehore nie.

Enigeen wat die bepalings van hierdie regulasie oortree, begaan 'n misdryf.

14. PLANNE VIR RIOLERINGS- EN LOODGIETERSWERK

(1) Elke persoon wat voornemens is om riolerings- of loodgieterswerk of albei te doen, moet alvorens hy met sodanige werk begin, by die kantoor van die Plaaslike Bestuur 'n skriftelike aansoek op die voorgeskrewe vorm indien, tesame met sodanige planne en besonderhede as wat in die hoofstuk van hierdie regulasies oor *Administrasie* vereis word, en moet goedkeuring van sodanige planne en besonderhede verkry.

(2) Ten opsigte van die ondersoek van sodanige aansoek, planne en besonderhede, moet die applikant gelde aan die Plaaslike Bestuur betaal wat op die vloeroppervlakte/geraamde koste[2] van die gebou gebaseer is teen 'n koers van R......[1] per 10 vierkante meter/per R100[2] of oorblywende deel daarvan, en die aansoek, planne en besonderhede sal nie oorweeg word voordat sodanige gelde betaal is nie.

[1] Die Plaaslike Bestuur moet hier die bedrag (indien enige) invul wat hy volgens wet mag besluit om te hef.

[1] Die Plaaslike Bestuur moet hier die bedrag (indien enige) invul wat hy volgens wet mag besluit om te hef.
[2] Die Plaaslike Bestuur moet die woorde wat nie van toepassing is nie skrap.

11. LICENCE MAY BE CANCELLED OR SUSPENDED

The Local Authority may at any time cancel or suspend any licence or provisional licence granted to any plumber or drain layer if it is satisfied that he has done any plumbing or drain laying work in a negligent or unworkmanlike manner to the injury of any person or property or contrary to any of the Local Authority's regulations: Provided that prior to such suspension or cancellation the person whose licence it is proposed to suspend or cancel shall be given an opportunity of appearing before the Local Authority or a committee thereof and of being heard in his own defence.

12. LICENCE FEE PAYABLE[1]

(1) A fee of .... shall be paid for each licence issued by the Local Authority to a plumber.

(2) A fee of .... shall be paid for each licence issued by the Local Authority to a drain layer.

PERMISSION TO CARRY OUT PLUMBING OR SEWERAGE WORK: PLANS AND NOTICES

13. REQUIRED PERMISSION

No person shall commence to construct, alter, add to, or reconstruct any plumbing system or sewerage work without the written permission of the Local Authority under the hand of the Engineer first had and obtained: Provided that no such permission shall be required for the cleaning of stoppages or the repairing of leaks in pipes and fittings.

Any person who contravenes the provisions of this regulation shall be guilty of an offence.

14. PLANS FOR SEWERAGE AND PLUMBING WORK

(1) Every person intending to carry out any sewerage or plumbing work or both shall before commencing such work deposit at the office of the Local Authority a written application on the prescribed form, together with such plans and particulars as are required by the chapter of these regulations on *Administration*, and shall obtain approval of such plans and particulars.

(2) In respect of the scrutiny of such application, plans, and particulars, the applicant shall pay to the Local Authority a fee, based on floor area/estimated cost[2] of the building at the rate of R......[1] per 10 square metres/per R100[2], or remaining part thereof, and the application, plans, and particulars shall not be considered until such fees have been paid.

[1] The Local Authority should here insert the fee (if any) which it may lawfully decide to levy.

[1] The Local Authority should here insert the fee (if any) which it may lawfully decide to levy.
[2] The Local Authority should delete the words that are not applicable.

(3) 'n Persoon wat beoog om sodanige planne te verander, moet die veranderings wat hy voornemens is om te maak, skriftelik aan die Plaaslike Bestuur voorlê met 'n duidelike verwysing na sodanige planne en moet terselfdertyd hersiene planne met 'n duidelike uiteensetting van sodanige veranderings voorlê.

(4) Enigeen wat die bepalings van hierdie regulasie oortree, begaan 'n misdryf.

15. GOEDKEURING NIETIG NA TWAALF (12) KALENDERMAANDE

Die Plaaslike Bestuur se goedkeuring van die planne in regulasie 14 genoem, word nietig na verloop van twaalf (12) kalendermaande vanaf die goedkeuringsdatum, tensy daar met die werk wat op sodanige planne afgeteken is binne hierdie tydperk begin word, en sodanige goedkeuring word desgelyks nietig twaalf (12) kalendermaande nadat sodanige werk gestaak is.

Nadat sodanige planne nietig geword het, soos hiervoor bepaal is, mag daar nie met die werk wat daarop afgeteken is, voortgegaan word nie, tensy en totdat daar weer aan die bepalings van regulasie 13 en 14 voldoen is en enige gelde wat ten opsigte daarvan betaalbaar is, betaal is.

16. VERANDERINGS AAN BESTAANDE LOODGIETWERKSTELSEL OF AAN VUILRIOLE

Wanneer 'n persoon beoog om by 'n bestaande loodgietwerkstelsel of 'n bestaande vuilriool by te voeg, dit te verander of oor aan te lê, en hy in staat is om ten opsigte daarvan na die oorspronklike planne wat by die Plaaslike Bestuur ingedien is, te verwys, is dit slegs nodig om soveel van die stelsel of riool op die tekening aan te dui as wat die Plaaslike Bestuur nodig het om hom in staat te stel om die ligging daarvan met betrekking tot die werk wat sodanige persoon beoog om uit te voer, vas te stel.

17. RIOLERINGSWERK, ENS. MAG NIE VOOR 'N SEKERE DATUM BEGIN WORD NIE

Geen persoon wat toestemming verkry het om riolerings- of loodgieterswerk te doen, mag met sodanige werk begin voordat twee (2) volle dae verloop het na die datum waarop die Plaaslike Bestuur die skriftelike kennisgewing van sy voorneme om te begin, ontvang het nie.

Enigeen wat die bepalings van hierdie regulasie oortree, begaan 'n misdryf.

AANSLUITINGS BY VUILRIOLE EN RIOLE: ALGEMEEN EN VERPLIGTEND; AFSLUITING; INSTANDHOUDING EN BESKERMING VAN VUILRIOLE, ENS.

18. AFSLUITING EN VERWYDERING VAN DREKWATERTOEBEHORE

(1) Wanneer drekwatertoebehore verwyder word, moet alle pype wat daardeur in onbruik raak, verwyder word of moet alle openings op 'n doeltreffende en duursame wyse verseël word.

Die eienaar van die perseel waarop sodanige werk uitgevoer word, moet onmiddellik na voltooiing daarvan die Plaaslike Bestuur skriftelik daarvan in kennis stel.

(3) Any person who desires to alter any plans shall submit the alterations he proposes to make to the Local Authority in writing, giving a clear reference to such plans and shall at the same time submit revised plans clearly setting forth such alterations.

(4) Any person who contravenes the provisions of this regulation shall be guilty of an offence.

15. APPROVAL NULL AND VOID AFTER TWELVE (12) CALENDAR MONTHS

The Local Authority's approval of the plans referred to in Regulation 14 shall become null and void after the expiration of twelve (12) calendar months from the date of such approval unless the work depicted on such plans is commenced within this period and such approval shall likewise become null and void twelve (12) calendar months after such work has been discontinued.

After such plans have become null and void as hereinbefore provided the work depicted thereon shall not be proceeded with unless and until the provisions of Regulations 13 and 14 have again been complied with and any fees payable in respect thereof have been paid.

16. ALTERATIONS TO EXISTING PLUMBING SYSTEM OR TO SEWERS

Where any person desires to add to, alter or reconstruct an existing plumbing system or an existing sewer and is able to refer to the original plans in respect thereof lodged with the Local Authority, only so much of such system or sewer as is required by the Local Authority to enable it to see the position thereof relative to the work such person desires to execute need be depicted on the plans in respect of such work.

17. SEWERAGE WORK, ETC. NOT TO BE COMMENCED BEFORE A CERTAIN DATE

No person who has obtained permission to execute any sewerage or plumbing work shall commence such work until two (2) clear days have elapsed after the date of the receipt by the Local Authority of written notice of his intention so to commence.

Any person who contravenes the provisions of this regulation shall be guilty of an offence.

CONNECTIONS TO SEWERS AND DRAINS: GENERAL AND COMPULSORY; DISCONNECTION; MAINTENANCE AND PROTECTION OF SEWERS, ETC.

18. DISCONNECTION AND REMOVAL OF SOIL-WATER FITTINGS

(1) Where a soil-water fitting is removed, all pipes thereby thrown into disuse shall be removed or all openings shall be effectively and durably sealed.

The owner of the premises upon which such work is carried out shall forthwith after its completion notify the Local Authority thereof in writing.

(2) Indien die Plaaslike Bestuur oortuig is dat sodanige werk volgens die toepaslike bepalings van die regulasies in die hoofstuk vervat, uitgevoer is, moet hy 'n sertifikaat te dien effekte uitreik, waarna die gelde (indien enige) wat ten opsigte van sodanige toebehore betaalbaar is, vanaf die datum van uitreiking van sodanige sertifikaat, nie meer betaal hoef te word nie.

(3) Enigeen wat die bepalings van subregulasie (1) van hierdie regulasie oortree, begaan 'n misdryf.

19. INSTANDHOUDING VAN PRIVAATVUILRIOLE, ENS.

(1) Die eienaar van 'n perseel moet die hele loodgieterswerkstelsel en alle privaatvuilriole op sodanige perseel tot by maar met uitsondering van die vuilrioolaansluiting, doeltreffend in stand hou, herstel, skoonmaak en skoonhou: Met dien verstande dat die Plaaslike Bestuur sodanige werk kan uitvoer teen die bedrag waaroor met sodanige eienaar ooreengekom is, of indien sodanige ooreenkoms nie bestaan nie of wanneer sodanige eienaar versuim om sodanige werk self uit te voer, die Plaaslike Bestuur sodanige werk self op koste van sodanige eienaar kan doen na 'n skriftelike kennisgewing deur hom onder die hand van die Ingenieur aan sodanige persoon waarin die werk wat gedoen moet word en die tydperk waarin dit voltooi moet wees, gespesifiseer word: Met dien verstande voorts dat die koste van enige werk wat deur die Plaaslike Bestuur gedoen word ten opsigte van die verwydering van 'n verstopping in die vuilrioolaansluiting, deur sodanige eienaar aan die Plaaslike Bestuur betaal moet word.

(2) 'n Gekombineerde privaatriool moet deur die Plaaslike Bestuur skoongemaak, skoongehou, in stand gehou en herstel word op die gesamentlike koste van die eienaars wat daardeur bedien word in sodanige verhoudings as wat deur die Ingenieur vasgestel word volgens die grondslag wat die Plaaslike Bestuur bepaal het kragtens die bevoegdheid aan hom verleen by enige Provinsiale Ordonnansie wát op hom van toepassing is.

(3) Ondanks die bepalings van subregulasie (1) en (2) van hierdie regulasie, waar die werk daarin genoem deur die Plaaslike Bestuur uitgevoer is en die Ingenieur vasgestel het dat sodanige werk genoodsaak was as gevolg van misbruik deur die okkupeerder of okkupeerders van sodanige perseel of persele, moet die koste daarvan deur die okkupeerder of okkupeerders op die wyse reeds beskryf, gedra word.

(4) Wanneer 'n verstopping of fout in 'n privaatvuilriool of gekombineerde privaatvuilriool voorkom, is dit die plig van die eienaar of eienaars van die perseel of persele wat daardeur bedien word om binne vier-en-twintig uur die Plaaslike Bestuur daarvan in kennis te stel.

(5) Wanneer 'n verstopping of fout in sanitêre toebehore voorkom, is dit die plig van die okkupeerder van die perseel waarin sodanige sanitêre toebehore geïnstalleer is om binne vier-en-twintig uur die Plaaslike Bestuur daarvan in kennis te stel.

(6) Enigeen wat die bepalings van subregulasie (1), (4) of (5) oortree, begaan 'n misdryf.

(2) The Local Authority shall if it is satisfied that such work has been carried out in accordance with the relevant provisions of the regulations contained in this chapter issue a certificate to that effect, whereupon the charges (if any) levied in respect of such fitting shall cease to be payable as from the date of issue of such certificate.

(3) Any person who contravenes the provisions of Subregulation (1) of this regulation shall be guilty of an offence.

19. MAINTENANCE OF PRIVATE SEWERS, ETC.

(1) The owner of any premises shall efficiently maintain, repair, cleanse and keep clean the entire plumbing system and all private sewers on such premises up to but not including the sewer connection: Provided that the Local Authority may execute such work at the cost of such owner by agreement or, failing such agreement or upon failure of such owner to execute such work himself, the Local Authority may execute such work itself at the cost of such owner, after written notice to him by the Local Authority under the hand of the Engineer specifying the work to be done and the time within which it should be completed: Provided further that the cost of any work done by the Local Authority in the removal of any stoppage in the sewer connection shall be paid to the Local Authority by such owner.

(2) The Local Authority shall cleanse and keep clean, maintain, and repair a combined private sewer, at the joint cost of the owners served thereby, in such proportions as may be fixed by the Engineer in accordance with principles determined by the Local Authority in pursuance of powers vested in it by any Provincial Ordinance applicable to it.

(3) Notwithstanding the provisions of Subregulations (1) and (2) of this regulation where the work referred to therein has been executed by the Local Authority and it is established by the Engineer that such work was necessitated by the misuse of the occupier or occupiers of such premises, the cost thereof shall be borne by such occupier or occupiers in the manner aforesaid.

(4) Whenever a stoppage or defect occurs in a private sewer or combined private sewer, it shall be the duty of the owner or owners of the premises served thereby to give notice thereof to the Local Authority within twenty-four hours.

(5) Whenever a stoppage or defect occurs in any sanitary fitting, it shall be the duty of the occupier of the premises in which such sanitary fitting is installed to give notice thereof to the Local Authority within twenty-four hours.

(6) Any person who contravenes the provisions of Subregulations (1), (4) or (5), shall be guilty of an offence.

20. AANSLUITINGS OOR DIE ALGEMEEN

(1) Voor of tydens die lê van 'n openbare vuilriool moet die Plaaslike Bestuur 'n kennisgewing vergesel van 'n skets wat die posisie en diepte aantoon van die openbare vuilriool en vuilrioolverbinding wat hy voornemens is om te lê, aan elke eienaar beteken wie se eiendom na die mening van die Plaaslike Bestuur met redelike gemak deur sodanige openbare vuilriool bedien word, of bedien sal word.

(2) In sodanige kennisgewing moet die Plaaslike Bestuur 'n tydperk bepaal waarin elke sodanige eienaar 'n skriftelike aansoek aan die Plaaslike Bestuur kan rig, waarin hy versoek dat 'n alternatiewe posisie en diepte wat in die versoek uiteengesit moet word in plaas van dié wat deur die Plaaslike Bestuur in die voornoemde skets aangetoon word, vir sy vuilrioolverbinding aangeneem word.

(3) By ontvangs van sodanige aansoek kan die Plaaslike Bestuur op eie koste, indien volgens wet daartoe gemagtig, of na betaling van sodanige bedrag as wat hy mag bepaal kragtens die bevoegdheid wat volgens wet aan hom verleen is, 'n vuilrioolverbinding lê tot by die grens van die applikant se eiendom, maar by die vasstelling van die posisie en diepte van sodanige vuilrioolverbinding is die Plaaslike Bestuur nie gebind deur die alternatiewe voorstel wat in subregulasie (2) van hierdie regulasie genoem word nie.

(4) Indien geen sodanige aansoek as dié in subregulasie (2) van hierdie regulasie genoem, binne die tydperk wat in die kennisgewing in subregulasie (1) van hierdie regulasie genoem. bepaal is, gedoen is nie, kan die Plaaslike Bestuur op eie koste, indien volgens wet daartoe gemagtig, of na betaling van die bedrag wat hy mag bepaal kragtens die bevoegdheid wat volgens wet aan hom verleen is, die vuilrioolverbinding in sodanige posisie en op sodanige diepte lê as wat na sy mening vir die betrokke eiendom geskik is en indien die eienaar van sodanige eiendom daarna vind dat die vuilrioolverbinding nie geskik is nie, moet hy die totale koste van enige verandering daaraan dra.

(5) Indien 'n eiendom alreeds deur 'n vuilrioolverbinding bedien word, moet die eienaar van sodanige eiendom wat 'n bykomende vuilrioolverbinding verlang, ten opsigte van die lê daarvan sodanige bedrag aan die Plaaslike Bestuur betaal as wat hy mag bepaal kragtens die bevoegdheid wat volgens wet aan hom verleen is.

21. VERPLIGTE VERBINDING[3]

(1) Indien 'n openbare vuilriool aangelê is tot by 'n punt wat na die mening van die Plaaslike Bestuur naby genoeg aan 'n perseel is om voldoening aan die kennisgewing wat hier volg redelik uitvoerbaar te maak, kan hy deur middel van 'n skriftelike kennisgewing onder die hand van die Ingenieur, wat 'n redelike tydperk van minstens dertig dae spesifiseer waarin die werk begin en voltooi moet word, van die eienaar van sodanige perseel vereis—

[3] Subregulasie (1) is gebaseer op artikels 171 en 172 van Ordonnansie 19 van 1951 (Kaap). Dit hoef derhalwe nie deur die Plaaslike Besture van die Kaapprovinsie aangeneem te word nie. Dit is egter hier ingevoeg omdat die betrokke ordonnansies van Transvaal, Natal en die Oranje-Vrystaat beoog die reg van verpligverklaring deur middel van regulasies ı· oefen.

20. CONNECTIONS GENERALLY

(1) Prior to or at the time of the laying of any public sewer, the Local Authority shall serve a notice accompanied by a sketch, showing the position and depth of the public sewer and sewer connection it is proposed to lay, upon each owner whose property is or will become in the opinion of the Local Authority reasonably capable of being served by such public sewer.

(2) In such notice the Local Authority shall stipulate a time within which each such owner may address a written application to it requesting it to adopt for his sewer connection a position and depth which shall be set forth in such application as an alternative to the position and depth shown by the Local Authority in the sketch aforesaid.

(3) Upon receipt of such application the Local Authority may, at its own expense if authorized by law so to do or upon the payment of such amount as it may determine in pursuance of powers vested in it by law, lay a sewer connection to the boundary of the applicant's property, but the Local Authority, in determining the position and depth of such sewer connection, shall not be bound by the alternative proposal referred to in Subregulation (2) of this regulation.

(4) Where no such application as is referred to in Subregulation (2) of this regulation is made within the time stipulated in the notice referred to in Subregulation (1) of this regulation, the Local Authority may at its own expense if authorized by law so to do or upon payment of such amount as it may determine in pursuance of powers vested in it by law lay the sewer connection in such a position and at such a depth as shall, in its opinion, be suitable for the property in question and if the owner of such property thereafter finds such sewer connection unsuitable he shall bear the whole cost of any alteration thereto.

(5) Where any property is already served by a sewer connection the owner of such property who requires an additional sewer connection shall pay to the Local Authority in respect of the laying thereof such amount as may be determined by it in pursuance of such powers as may be vested in it by law.

21. COMPULSORY CONNECTION[3]

(1) Where a public sewer has been constructed to a point which in the opinion of the Local Authority is as near to any premises as to render compliance with the notice hereinafter mentioned reasonably practicable it may by written notice under the hand of the Engineer specifying a reasonable time, not being less than thirty days, within which the work shall be commenced and completed, require the owner of such premises—

[3] Subregulation (1) is based on Sections 171 and 172 Ordinance 19 of 1951 (Cape). It need not accordingly adopted by Local Authorities in the Cape Province. It h however, been inserted here because the relevant Ordinances the Provinces of the Transvaal, Natal, and Orange Free St contemplate the exercise of the power of compulsion throu the medium of Regulations.

(*a*) **om 'n privaatvuilriool vir die doeltreffende afvoer van rioolvuil daarvandaan na 'n openbare vuilriool aan te lê waar geen privaatvuilriool bestaan nie of 'n bestaande privaatvuilriool nie voldoende vir sodanige doel is nie;**

(*b*) **om tot tevredenheid van die Plaaslike Bestuur een of meer spoelklosette en, waar nodig, 'n voldoende aantal spoelklosette vir gebruik deur persone van verskillende geslagte en van verskillende rasse te verskaf waar sodanige perseel nie 'n spoelkloset of 'n voldoende aantal spoelklosette het nie en dit regstreeks of onregstreeks by 'n openbare vuilriool aangesluit is of aangesluit moet wees;**

(*c*) **om sanitêre toebehore in die privaatvuilriool of gekombineerde privaatvuilriool wat sodanige perseel bedien, te laat afvoer waar sodanige perseel regstreeks of onregstreeks by 'n openbare vuilriool aangesluit is of aangesluit moet wees.**

(2) 'n Eienaar wat versuim om aan die bepalings van die kennisgewing in subregulasie (1) van hierdie regulasie genoem, te voldoen binne die tydperk wat daarin gespesifiseer is of binne sodanige tydsverlenging as wat die Plaaslike Bestuur kan toelaat, begaan 'n misdryf, en die Plaaslike Bestuur kan sodanige werk op koste van sodanige eienaar doen of voltooi.

(3) Alle nuwe geboue en alle aan- en verbouings aan bestaande geboue moet so geleë wees dat dit redelik uitvoerbaar is om hulle regstreeks of onregstreeks by 'n bestaande openbare vuilriool aan te sluit.

(4) Wanneer 'n nuwe gebou opgerig moet word of waar aan- of verbouing aan 'n bestaande gebou moet plaasvind in 'n gebied waar nog geen openbare vuilriool gelê is nie, dog waarin die toekomstige posisie en diepte van sodanige vuilriool ooreenkomstig regulasie 20 bepaal is, moet die eienaar van sodanige gebou besonderhede van die posisies en hoogtes waarop dit opgerig moet word van die Plaaslike Bestuur verkry en moet die eienaar dit dienooreenkomstig oprig sodat die aansluiting daarvan by 'n openbare vuilriool, wanneer dit later aangelê word, vergemaklik word.

22. RIOOLVUIL MAG NIE SONDER TOESTEMMING IN VUILRIOLE INGELEI WORD NIE

Geen persoon mag enigiets in 'n pas aangelegde vuilriool plaas, laat plaas of toelaat dat enigiets daarin geplaas word nie, of enigiets 'n vuilriool laat binnegaan of toelaat dat enigiets 'n vuilriool binnegaan voordat die eienaar van die perseel wat deur sodanige vuilriool bedien word, die nodige skriftelike toestemming van die Plaaslike Bestuur onder die hand van die Ingenieur ontvang het nie.

Enigeen wat die bepalings van hierdie regulasie oortree, begaan 'n misdryf.

23. BESKERMING VAN VUILRIOLE[4]

(1) Geen persoon mag, behalwe met die skriftelike toestemming van die Plaaslike Bestuur onder die hand van die Ingenieur en behoudens sodanige voorwaardes wat hy mag stel—

[4] Ten einde die toepassing van hierdie afdeling te vergemaklik, word voorgestel dat die Plaaslike Bestuur advies moet verkry wat 'n nyweraar as leidraad kan gebruik om 'n fabrieksperseel op 'n geskikte afstand van die Plaaslike Bestuur se rioolslykwerke uit te soek. Die aandag van Plaaslike Besture in die Kaapprovinsie word gevestig op artikel 180 van Ordonnansie 19 van 1951, wat baie omvattend is. Hulle kan derhalwe besluit om nie hierdie regulasie, wat ingesluit is vir oorweging en aanvaarding deur Plaaslike Besture in die Provinsies Transvaal, Natal en die Oranje-Vrystaat, te aanvaar nie.

(*a*) not having a private sewer either at all or sufficient for the effectual conveyance of sewage therefrom to a public sewer, to construct a private sewer for such purpose;

(*b*) connected or required to be connected directly or indirectly to a public sewer and not having a water closet or a sufficient number of water closets, to provide to the satisfaction of the Local Authority one or more water closets and, where necessary, a sufficient number of water closets for the use of persons of different sexes and different races;

(*c*) connected or required to be connected directly or indirectly to a public sewer, to cause any sanitary fitting to discharge into the private sewer or combined private sewer serving such premises.

(2) Any owner who fails to comply with the terms of the notice referred to in Subregulation (1) of this regulation within the time specified therein or within such extension of time as the Local Authority may allow, shall be guilty of an offence, and the Local Authority may do or complete such work at the cost of the owner.

(3) All new buildings and all additions and alterations to existing buildings shall be so located that it will be reasonably practicable to connect them directly or indirectly to any existing public sewer.

(4) Where a new building is to be erected or where an existing building is to be added to or altered in an area in which no public sewer as yet exists but in which the future position and depth of such sewer has been located in terms of Regulation 20, the owner of such building shall obtain from the Local Authority particulars of the positions and levels at which it will be necessary to place it and the owner shall erect it accordingly so that its connection to a public sewer when in due course it is laid may be facilitated.

22. SEWAGE NOT TO BE PASSED INTO SEWERS WITHOUT PERMISSION

No person shall put anything into, or cause or permit anything to be put into, or cause or permit anything to enter, any newly constructed sewer until the owner of the premises served by such sewer has received the necessary written permission of the Local Authority under the hand of the Engineer.

Any person who contravenes the provisions of this regulation shall be guilty of an offence.

23. PROTECTION OF SEWERS[4]

(1) No person shall, except with the written permission of the Local Authority under the hand of the Engineer and subject to such conditions as it may impose, discharge or put or cause or permit to be discharged or to be put into any sewer as defined in Subregulation (1) of Regulation 1—

[4] In order to facilitate the operation of this section, it is suggested that the Local Authority should obtain advice which an industrialist could use as a guide in selecting a factory site at a suitable distance from the Local Authority's disposal works. The attention of local authorities in the Cape Province is directed to Section 180 of Ordinance 19 of 1951, which is very comprehensive in its terms. They may accordingly decide not to adopt this regulation which has been inserted for consideration and adoption by Local Authorities in the Provinces of the Transvaal, Natal, and Orange Free State.

(i) enige gas of stoom;

(ii) enige vloeistof (uitgesonderd huishoudelike vuilwater) met 'n temperatuur van meer as 45°C;

(iii) enige vloeistof met 'n pH-waarde van minder as 6·5 of meer as 12·0;

(iv) enigiets wat kalsiumkarbied of enige ander stof hoegenaamd bevat wat moontlik 'n ontplofbare of aanstootlike gas, damp of rokende damp kan afgee;

(v) enigiets wat 'n stof bevat wat 'n oop ontbrandingspunt van minder as 95°C het of wat 'n giftige gas, damp of rokende damp onder 95°C afgee;

(vi) enigiets wat 'n stof bevat wat, hetsy alleen of in verbinding met ander stowwe, moontlik tot las vir die publiek kan wees of besering of gevaar vir die gesondheid van persone kan inhou; of wat beskadiging aan die vuilriole of aan enige installasie of grond kan veroorsaak wat vir die behandeling of wegruiming van rioolvuil gebruik word; of wat die hergebruik van behandelde rioolvuil of enigeen van die prosesse waardeur rioolvuil behandel word, nadelig kan beïnvloed;

(vii) enige chemiese afval;

(viii) enige werks-, fabrieks- of nywerheidsuitvloeisel;

in 'n vuilriool, soos in subregulasie (1) van regulasie 1 omskryf, afvoer of plaas of laat afvoer of plaas of toelaat dat dit daarin afgevoer of geplaas word nie.

(2) Enige persoon wat enige bepaling van subregulasie (1) van hierdie regulasie oortree, begaan 'n misdryf, en enige persoon wat sodanige misdryf begaan nadat 'n skriftelike kennisgewing onder die hand van die Ingenieur wat hom beveel om op te hou met sodanige misdryf aan hom beteken is of nadat hy skuldig bevind is aan sodanige misdryf, maak hom skuldig aan die voortsetting van 'n misdryf.

VEREISTES TEN OPSIGTE VAN SANITÊRE FASILITEITE

24. ALGEMEEN

Waar 'n voldoende watervoorraad wat deur die Plaaslike Bestuur beheer word, beskikbaar is, moet elke woon-, besigheids- en openbare gebou en inrigting voorsien word van 'n loodgietwerkstelsel en sanitêre toebehore wat in 'n openbare vuilriool (indien daar een is) of, indien daar nie 'n openbare vuilriool is nie, in 'n septiese tenk of riooltenk of ander goedgekeurde rioolvuilontvanger afvoer.

VEREISTE SANITÊRE TOEBEHORE

25. VEREISTE SANITÊRE TOEBEHORE

Elke woon, besigheids- of openbare gebou of inrigting moet voorsien wees van minstens die getal sanitêre toebehore wat in tabel I aangegee word en moet daarbenewens aan die volgende vereistes voldoen:

(*a*) Aparte sanitêre toebehore moet vir Blankes en nie-Blankes verskaf word en indien die Plaaslike Bestuur dit vereis, moet die woorde „SLEGS BLANKES" en „SLEGS NIE-BLANKES" duidelik aangebring word op die deure wat toegang verleen tot die plekke waarin sodanige toebehore geïnstalleer word.

(i) any gas or steam;

(ii) any liquid (not being domestic waste water) of a temperature higher than 45°C;

(iii) any liquid which has a pH value less than 6·5 or greater than 12·0;

(iv) anything which contains calcium carbide or any other substance whatsoever which is likely to emit explosive or offensive gases, fumes, or vapours;

(v) anything which contains a substance which has an open flash point of less than 95°C or which emits poisonous gas, fumes, or vapour below 95°C;

(vi) anything containing any substance which, whether alone or in combination with other matter is likely to cause a nuisance to the public or injury or danger to the health of persons; or to cause injury or damage to the sewers or to any plant or land used for the treatment or disposal of sewage; or to affect injuriously the re-use of treated sewage or any of the processes whereby sewage is treated;

(vii) any chemical refuse;

(viii) any trade, manufacturing, or industrial effluent.

(2) Any person who contravenes any of the provisions of Subregulation (1) of this regulation shall be guilty of an offence, and any person who commits such offence after a written notice under the hand of the Engineer to cease committing such offence has been served on him or after he has been convicted of such offence shall be guilty of a continuing offence.

REQUIREMENTS IN RESPECT OF SANITARY FACILITIES

24. GENERAL

Whenever an adequate water supply controlled by the Local Authority is available, every residential, institutional, business, and public building shall be provided with a plumbing system and sanitary fittings discharging into a public sewer (if available) or, if a public sewer is not available, into a septic or conserving tank or other approved means of sewage disposal.

SANITARY FITTINGS REQUIRED

25. SANITARY FITTINGS REQUIRED

Every residential, institutional, business, or public building shall be provided with at least the number of sanitary fittings shown in Table I and, in addition, the following requirements shall be complied with:

(*a*) Separate sanitary fittings shall be provided for Whites and non-Whites and where required by the Local Authority the doors giving access to the places in which such fittings are installed shall be clearly marked "WHITES ONLY" and "NON-WHITES ONLY".

(*b*) Waar 'n vertrek, uitgesonderd 'n vertrek in 'n woning of wooneenheid, waarin sanitêre toebehore geïnstalleer word, bedoel is vir gebruik deur meer as een persoon op 'n slag, moet die gebruik van sodanige vertrek beperk word tot een geslag alleenlik.

(*c*) Waar spoelklosetkompartemente of badkamers voorsien word, uitgesonderd dié in 'n woning of wooneenheid, en elke sodanige kompartement of badkamer deel vorm van 'n vertrek, waarna toegang deur 'n ondeursigtige deur verleen moet word, moet sodanige kompartement of badkamer voorsien word van 'n ondeursigtige deur wat in staat is om die deuropening tot 'n hoogte van minstens 2 meter toe te maak, behalwe dat 'n ruimte van hoogstens 100 millimeter tussen die onderkant van sodanige deur en die vloer gelaat kan word: Met dien verstande dat die Plaaslike Bestuur na goeddunke die weglating van die deur na sodanige kompartement of badkamer kan toelaat.

(*d*) Wanneer 'n slaapkamer van sy eie sanitêre toebehore voorsien word, moet sodanige toebehore en die persone wat daardeur bedien word nie in aanmerking geneem word wanneer die getal sodanige toebehore wat volgens tabel I geïnstalleer moet word, bepaal word nie.

(*b*) Whenever a room in other than a dwelling or a dwelling unit in which sanitary fittings are installed is intended for the use of more than one person at any one time, the use of such room shall be restricted to one sex only.

(*c*) Whenever water closet compartments or bathrooms are provided in other than a dwelling or a dwelling unit, and each such compartment or bathroom forms part of a room, entrance to which shall be by an opaque door, then each such compartment or bathroom shall be fitted with an opaque door capable of closing the door aperture to a height of not less than 2 metres, except that a gap of not more than 100 millimetres may be left between the bottom of such door and the floor: Provided that the Local Authority may in its discretion permit the omission of the door to such compartment or bathroom.

(*d*) Where any bedroom is provided with its own sanitary fittings, such fittings and the persons served thereby shall not be taken into account when the number of such fittings, required by Table I to be installed, is determined.

TABEL I

MINIMUM GETAL LOODGIETERSTOEBEHORE VEREIS VIR GEBOUE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		Spoelklosette		Urinaalvakke		Wasbakke*		Baddens of stortbaddens		Baddens		Stortbaddens		Kombuis-opwasbakke	Opmerkings
		Getal persone	Getal spoelklosette	Getal persone	Getal urinale	Getal persone	Getal wasbakke	Getal persone	Getal baddens of stortbaddens	Getal persone	Getal baddens	Getal persone	Getal stortbaddens		
Woongeboue (uitgesonderd privaat-woonhuise) en weeshuise	Mans	Vir die eerste 36†	1 vir elke 12†	Vir die eerste 3–30†	1 vir elke 15†	Vir die eerste 40†	1 vir elke 8†	Vir die eerste 24†	1 vir elke 8†	—	—	—	—		
		Daarna vanaf en insluitende 37 en meer	1 vir elke 20†	Daarna vanaf en insluitende 31 en meer	1 vir elke 30†	Daarna vanaf en insluitende 41 en meer	1 vir elke 15†	Daarna vanaf en insluitende 25 en meer	1 vir elke 15†	—	—	—	—		
	Dames	Vir die eerste 30†	1 vir elke 10†	—	—	Vir die eerste 40†	1 vir elke 8†	Vir die eerste 24†	1 vir elke 8†	—	—	—	—		
		Daarna vanaf en insluitende 31 en meer	1 vir elke 15†	—	—	Daarna vanaf en insluitende 41 en meer	1 vir elke 15†	Daarna vanaf en insluitende 25 en meer	1 vir elke 15†	—	—	—	—		
Privaat-woonhuise		—	1 per woonhuis	—	—	—	1 per woonhuis	—	1 per woonhuis	—	—	—	—	1 per kombuis	
Inrigtings behalwe kinderbewaarskole, weeshuise en kleurterskole	Mans en Dames	Vir die eerste 50†	1 vir elke 10†	(slegs mans) Vir die eerste 3–30†	1 vir elke 15†	Vir die eerste 32†	1 vir elke 8†	—	—	Vir die eerste 30†	1 vir elke 15†	1 en meer	1 vir elke 25†		
		Daarna vanaf en insluitende 51 en meer	1 vir elke 15†	Daarna vanaf en insluitende 31 en meer	1 vir elke 30†	Daarna vanaf en insluitende 33 en meer	1 vir elke 15†	—	—	Daarna vanaf en insluitende 31 en meer	1 vir elke 30†	—	—		

* 'n Kraan in die stortkamertjie of waskamer kan in plaas van 'n wasbak aangebring word. † Moet vertolk word asof die woorde „of gedeelte daarvan" na die syfers ingevoeg is.

TABLE I

MINIMUM NUMBER OF PLUMBING FITTINGS REQUIRED FOR BUILDINGS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		Water closets		Urinal stalls		Basins*		Baths or showers		Baths		Showers		Kitchen sinks	Remarks
		No. of persons	No. of W.C.'s	No. of persons	No. of urinals	No. of persons	No. of basins	No. of persons	No. of baths or showers	No. of persons	No. of baths	No. of persons	No. of showers		
Residential buildings (excluding private dwellings) and orphanages	Male	For the first 36†	1 for every 12†	For the first 3–30†	1 for every 15†	For the first 40†	1 for every 8†	For the first 24†	1 for every 8†	—		—	—		
		Thereafter from and including 37 and over	1 for every 20†	Thereafter from and including 31 and over	1 for every 30†	Thereafter from and including 41 and over	1 for every 15†	Thereafter from and including 25 and over	1 for every 15†	—	—	—	—		
	Female	For the first 30†	1 for every 10†	—	—	For the first 40†	1 for every 8†	For the first 24†	1 for every 8†	—	—	—	—		
		Thereafter from and including 31 and over	1 for every 15†	—	—	Thereafter from and including 41 and over	1 for every 15†	Thereafter from and including 25 and over	1 for every 15†	—	—	—	—		
Private dwellings		—	1 per dwelling	—	—	—	1 per dwelling	—	1 per dwelling	—	—	—	—	1 per kitchen	
Institutional buildings except crèches, orphanages, and nursery schools	Male and Female	For the first 50†	1 for every 10†	(males only) For the first 3–30†	1 for every 15†	For the first 32†	1 for every 8†	—	—	For the first 30†	1 for every 15†	1 and over	1 for every 25†		
		Thereafter from and including 51 and over	1 for every 15†	Thereafter from and including 31 and over	1 for every 30†	Thereafter from and including 33 and over	1 for every 15†	—	—	Thereafter from and including 31 and over	1 for every 30†	—	—		

* A tap in the shower cubicle or ablution room may be substituted for a basin.

† To be construed as if the words "or remaining portion thereof" had been inserted after the figures.

TABEL I (*Vervolg*)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		Spoelklosetts		Urinaalvakke		Wasbakke*		Baddens of stortbaddens		Baddens		Stortbaddens		Kombuis opwasbakke	Opmerkings
		Getal persone	Getal spoelklosette	Getal persone	Getal urinale	Getal persone	Getal wasbakke	Getal persone	Getal baddens of stortbaddens	Getal persone	Getal baddens	Getal persone	Getal stortbaddens		
Nie-residensiële skole en kolleges; kinderbewaarskole; en kleuterskole	*Leerlinge:* Manlik	Vir die eerste 50†	1 vir elke 25†	Vir die eerste 3–50†	1 vir elke 25†	Vir die eerste 50†	1 vir elke 50†	—	—	—	—	1 en meer	1 vir elke 5†		
		Daarna vanaf en insluitende 51 en meer	1 vir elke 50†	Daarna vanaf en insluitende 51 en meer	1 vir elke 50†	Daarna vanaf en insluitende 51 en meer	1 vir elke 100	—	—	—	—	—	—		
	Vroulik	Vir die eerste 60†	1 vir elke 20†	—	—	Vir die eerste 60†	1 vir elke 30†	—	—	—	—	1 en meer	1 vir elke 5†		
		Daarna vanaf en insluitende 61 en meer	1 vir elke 30†	—	—	Daarna vanaf en insluitende 61 en meer	1 vir elke 60†	—	—	—	—	—	—		
	Personeel: Mans	1 en meer	1 vir elke 8†	3 en meer	1 vir elke 15†	1 en meer	1 vir elke 16†	—	—	—	—	—	—		
	Dames	1 en meer	1 vir elke 6†	—	—	1 en meer	1 vir elke 12†	—	—	—	—	—	—		
Gimnasiums	Mans	1 en meer	1 vir elke 15†	3 en meer	1 vir elke 15†	1 en meer	1 vir elke 8†	—	—	—	—	1 en meer	1 vir elke 5†	1 per kombuis	Die getal stortbaddens wat vir gimnasiums en sportpawiljoene vereis word, moet gebaseer word op die aantal deelnemers wat dit op een slag gebruik
	Dames	1 en meer	1 vir elke 8†	—	—	1 en meer	1 vir elke 8†	—	—	—	—	1 en meer	1 vir elke 5†		
Besigheidsgeboue‡	Mans	Vir die eerste 60†	1 vir elke 15†	Vir die eerste 3–30†	1 vir elke 15†	Vir die eerste 60†	1 vir elke 30†	—	—	—	—	—	—		
		Daarna vanaf en insluitende 61 en meer	1 vir elke 25†	Daarna vanaf en insluitende 31 en meer	1 vir elke 30†	Daarna vanaf en insluitende 61†	1 vir elke 50†	—	—	—	—	—	—		
	Dames	Vir die eerste 60†	1 vir elke 10†	—	—	Vir die eerste 60†	1 vir elke 20†	—	—	—	—	—	—		
		Daarna vanaf en insluitende 61 en meer	1 vir elke 25†	—	—	Daarna vanaf en insluitende 61 en meer	1 vir elke 50†	—	—	—	—	—	—		

* 'n Kraan in die stortkamertjie of waskamer kan in plaas van 'n wasbak aangebring word.

† Moet vertolk word asof die woorde „of gedeelte daarvan" na die syfers ingevoeg is.

‡ In winkels waar in enige gedeelte daarvan eetware verkoop word wat nie op so 'n wyse verpak is dat dit teen besoedeling deur hantering gevrywaar is nie, moet 'n bykomende wasbak in so 'n posisie geïnstalleer word dat dit maklik toeganklik is vir alle persone wat in daardie gedeelte in diens is.

TABLE I (*Continued*)

		Water closets		Urinal stalls		Basins*		Baths or showers		Baths		Showers		Kitchen sinks	Remarks
		No. of persons	No. of W.C.'s	No. of persons	No. of urinals	No. of persons	No. of basins	No. of persons	No. of baths or showers	No. of persons	No. of baths	No. of persons	No. of showers		
Non-residential schools and colleges; crèches; and nursery schools	*Pupils:* Male	For the first 50†	1 for every 25†	For the first 3–50†	1 for every 25†	For the first 50†	1 for every 50†	—		—	—	1 and over	1 for every 5†		
		Thereafter from and including 51 and over	1 for every 50†	Thereafter from and including 51 and over	1 for every 50†	Thereafter from and including 51 and over	1 for every 100	—		—	—	—	—		
	Female	For the first 60†	1 for every 20†	—	—	For the first 60†	1 for every 30†	—	—	—	—	1 and over	1 for every 5†		
		Thereafter from and including 61 and over	1 for every 30†	—	—	Thereafter from and including 61 and over	1 for every 60†	—	—	—	—	—	—		
	Staff: Male	1 and over	1 for every 8†	3 and over	1 for every 15†	1 and over	1 for every 16†	—	—		—	—	—		
	Female	1 and over	1 for every 6†	—	—	1 and over	1 for every 12†	—			—	—	—		
Gymnasia	Male	1 and over	1 for every 15†	3 and over	1 for every 15†	1 and over	1 for every 8†	—	—	—	—	1 and over	1 for every 5†		The number of showers required for gymnasia and sports pavilions shall be based on the number of participants using them at one time
	Female	1 and over	1 for every 8†	—	—	1 and over	1 for every 8†	—	—	—	—	1 and over	1 for every 5†		
Business buildings‡	Male	For the first 60†	1 for every 15†	For the first 3–30†	1 for every 15†	For the first 60†	1 for every 30†	—	—	—	—	—	—		
		Thereafter from and including 61 and over	1 for every 25†	Thereafter from and including 31 and over	1 for every 30†	Thereafter from and including 61†	1 for every 50†	—	—	—	—	—	—		
	Female	For the first 60†	1 for every 10†	—	—	For the first 60†	1 for every 20†	—	—	—	—	—	—		
		Thereafter from and including 61 and over	1 for every 25†	—	—	Thereafter from and including 61 and over	1 for every 50†	—	—	—	—	—	—		

* A tap in the shower cubicle or ablution room may be substituted for a basin.
† To be construed as if the words "or remaining portion thereof" had been inserted after the figures.

‡ In shops in any portion of which foodstuffs not so packed as to be free from contamination by handling are sold, an additional basin shall be installed in such a position that it is readily accessible to all persons employed in every such portion.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		Spoelklosette		Urinaalvakke		Wasbakke*		Baddens of stortbaddens		Baddens		Stortbaddens		Kombuis opwas-bakke	Opmerkings
		Getal persone	Getal spoel-klosette	Getal persone	Getal urinale	Getal persone	Getal was-bakke	Getal persone	Getal baddens of stort-baddens	Getal persone	Getal baddens	Getal persone	Getal stort-baddens		
Plekke vir openbare vermaak (stadions, sale, teaters, ens.) (Slegs van toepassing op toeskouers)§	Mans	Vir die eerste 250†	1 vir elke 125†	Vir die eerste 500†	1 vir elke 50†									1 per kombuis	
		Daarna vir die volgende 250 tot en met 500	1 vir elke 250†	Daarna vir die volgende 500 tot en met 1 000†	1 vir elke 100†										
		Daarna vir die volgende 500 tot en met 1 000	1 vir elke 500†	Daarna vir die volgende 1 000 tot en met 2 000†	1 vir elke 200†										
		Daarna vir die volgende 1 000 tot en met 2 000	1 vir elke 1 000†	Daarna vir 2 001 en meer	1 vir elke 500†										
		Daarna vir 2 001 en meer	1 vir elke 2 500†	—	—										
	Dames	Vir die eerste 200†	1 vir elke 40†												
		Daarna vir die volgende 500 tot en met 700	1 vir elke 100†												
		Daarna vir die volgende 1 000 tot en met 1 700	1 vir elke 250†												
		Daarna vir 1 701 en meer	1 vir elke 500†												

* 'n Kraan in die stortkamertjie of waskamer kan in plaas van 'n wasbak aangebring word.
† Moet vertolk word asof die woorde „of gedeelte daarvan" na die syfers ingevoeg is.
§ Aparte fasiliteite moet vir spelers verskaf word volgens die skaal wat vir gimnasiums vereis word.

TABLE I (*Continued*)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		Water closets		Urinal stalls		Basins*		Baths or showers		Baths		Showers		Kitchen sinks	Remarks
		No. of persons	No. of W.C.'s	No. of persons	No. of urinals	No. of persons	No. of basins	No. of persons	No. of baths or showers	No. of persons	No. of baths	No. of persons	No. of showers		
Places of public entertainment (stadia, halls, theatres, etc.) (Applicable to spectators only)§	Male	For the first 250†	1 for every 125†	For the first 500†	1 for every 50†									1 per kitchen	
		Thereafter for the next 250 up to and including 500	1 for every 250†	Thereafter for the next 500 up to and including 1 000†	1 for every 100†										
		Thereafter for the next 500 up to and including 1 000	1 for every 500†	Thereafter for the next 1 000 up to and including 2 000†	1 for every 200†										
		Thereafter for the next 1 000 up to and including 2 000	1 for every 1 000†	Thereafter for 2 001 and over	1 for every 500†										
		Thereafter for 2 001 and over	1 for every 2 500†	—	—										
	Female	For the first 200†	1 for every 40†												
		Thereafter for the next 500 up to and including 700	1 for every 100†												
		Thereafter for the next 1 000 up to and including 1 700	1 for every 250†												
		Thereafter for 1 701 and over	1 for every 500†												

* A tap in the shower cubicle or ablution room may be substituted for a basin.

† To be construed as if the words "or remaining portion thereof" had been inserted after the figures.

§ Separate facilities must be provided for players on the scale required for gymnasia.

GEHALTE EN ONTWERP VAN SANITÊRE TOEBEHORE, PYPE EN BYBEHORE[5]

SANITÊRE TOEBEHORE

26. ALGEMEEN

Alle sanitêre toebehore moet sterk wees, moet van korrosiebestande materiaal gemaak wees, moet ondeurdringbaar wees vir water en moet afgewerk wees met 'n gladde oppervlak wat vry van alle gebreke en vlekke is.

Alle sanitêre toebehore kan, voordat dit in gebruik geneem word, deur die Plaaslike Bestuur getoets word en is onderworpe aan die goedkeuring van die Plaaslike Bestuur.

Geen sanitêre toebehore mag deur hout of 'n ander absorberende materiaal omhul word nie.

Alle drekwatertoebehore moet van verglaasde erdewerk, geglasuurde porselein, vuurvaste klei of glasporselein, almal met 'n geglasuurde afwerking, of van enige goedgekeurde metaal gemaak wees.

Alle vuilwatertoebehore moet van bogenoemde materiale of van gietyster, geëmaljeerde sagtestaal of vlekvrye legerings gemaak wees.

Die bepalings van hierdie regulasie is nie van toepassing op sanitêre toebehore wat reeds geïnstalleer is op die datum waarop dit in werking tree nie, tensy sodanige toebehore op die genoemde datum in so 'n toestand is of daarna in so 'n toestand geraak het dat die voortgesette gebruik daarvan 'n oorlas is of moontlik kan wees.

27. SPOELKLOSETPANNE

Alle spoelklosetpanne en meegaande sperders moet aan SABS 497 „Geglasuurde sanitêre ware van keramiek" voldoen.

Enige kussing wat tussen die voetstuk van die pan en die vloer ingevoeg word moet van 'n nie-absorberende materiaal wees.

Nie-absorberende sitplekrande of inlasse of skarniersitplekke moet aan sodanige panne aangebring wees behalwe in die geval van hurkklosette.

28. SPOELBAKKE

Elke spoelkloset, urinaal of vuilwatertregter moet gespoel word deur middel van 'n goedgekeurde spoelklep of spoelbak wat aan SABS 497 of aan SABS 821 „Hoë en lae latrine-spoelbakke" voldoen.

Wanneer 'n spoelbak aan 'n spoelklosetpan gekoppel is, moet dit die volgende maksimum spoeltye hê:

Hoë spoelbak	*Lae spoelbak*
9·1 liter: 6 sekondes	9·1 liter: 7 sekondes
11·4 liter: 7½ sekondes	11·4 liter: 8½ sekondes
13·6 liter: 8½ sekondes	13·6 liter: 10 sekondes

Sodanige spoelbakke, uitgesonderd die tipe wat outomaties uitstort, moet voorsien wees van 'n goedgekeurde klep of hewel om watervermorsing te voorkom en van 'n koeëlklep wat aan SABS 752 „Vlotterkleppe" voldoen. Die oorlooppyp moet uitloop op 'n goedgekeurde oop plek waar 'n oorloop dadelik raakgesien kan word en waar die gebou nie daardeur beskadig kan word nie.

[5] Die aandag word daarop gevestig dat kragtens die hoofstuk van hierdie regulasies oor *Administrasie* (Hoofstuk 2) toestemming om materiale, toebehore en metodes te gebruik wat nie in hierdie deel van die regulasies of inderdaad in enige ander deel van hierdie regulasies voorgeskryf word nie, op die wyse in genoemde hoofstuk uiteengesit, verkry kan word.

QUALITY AND DESIGN OF SANITARY FITTINGS, PIPING, AND ACCESSORIES[5]

SANITARY FITTINGS

26. GENERAL

All sanitary fittings shall be substantially made, shall be constructed of corrosion-resistant material, shall be impermeable to water, and shall be finished with a smooth surface, free from all flaws or blemishes.

All sanitary fittings may, prior to their being put into use, be tested by and shall be subject to the approval of the Local Authority.

No sanitary fittings shall be encased in wood or other absorbent material.

All soil-water fittings shall be of vitrified earthenware, glazed porcelain, fire-clay, or vitreous china, all having a glazed finish, or shall be of any approved metal.

All waste-water fittings shall be of the materials aforementioned or of cast iron, enamelled mild steel, or stainless alloys.

The provisions of this regulation shall not apply to sanitary fittings already installed at the date on which it comes into operation unless such fittings are in, at the said date, or thereafter have fallen into such a condition that their continued use constitutes or is likely to constitute a nuisance.

27. WATER CLOSET BOWLS

All water closet bowls and associated traps shall comply with SABS 497 "Glazed ceramic sanitary-ware".

Any pad inserted between the base of the bowl and the floor shall be of non-absorbent material.

Non-absorbent seat rims or insets or hinged seats shall be fitted to such bowls except in the case of squatting closets.

28. FLUSHING CISTERNS

Every water closet, urinal, or slop hopper shall be flushed by means of an approved flushing valve or a flushing cistern complying with SABS 497 or with SABS 821 "High and low level WC flushing cisterns".

When coupled to a wash down pan, the cistern shall have the following maximum flushing times:

High level cistern	*Low level cistern*
9·1 litres: 6 seconds	9·1 litres: 7 seconds
11·4 litres: 7½ seconds	11·4 litres: 8½ seconds
13·6 litres: 8½ seconds	13·6 litres: 10 seconds

Such cisterns, other than the automatic discharge type, shall be fitted with an approved water waste preventor valve or siphon and with a ballvalve complying with SABS 752 "Ballvalves". The overflow pipe shall terminate in an approved exposed position where an overflow can be readily noticed and will not result in damage to the building.

[5] Note that in terms of the chapter of these regulations on *Administration* (Chapter 2) permission for the use of materials, fittings, and methods not prescribed in this part of these regulations, or indeed in any other part of these regulations, may be obtained in the manner set forth in the said chapter.

29. SPOELKLEPPE

Waar spoelkleppe gebruik word, moet hulle outomaties 'n volume water lewer wat nie kleiner is en nie stadiger vloei as wat vir spoelbakke voorgeskryf word nie.

Behoorlike voorsorgmaatreëls moet getref word om terugheweling van die drekwatertoebehore na die watervoorraad te voorkom. Sodanige maatreëls kan getref word deur middel van òf 'n heeltemal aparte tenk wat groot genoeg is en hoog genoeg geplaas is om bevredigende werking te verseker, òf 'n sluktoestel wat 'n integrerende deel uitmaak van die klep wat deur die Plaaslike Bestuur goedgekeur is.

30. VUILWATERTREGTERS

Alle vuilwatertregters moet voorsien wees van goedgekeurde korrosiebestande skarniermetaalroosters met openings wat hoogstens 20 millimeter wyd is. Die waterlyn moet net onderkant sodanige rooster wees en die grootte van die watervlak moet minstens die grootte van die tapuitlaat van die toebehore wees. 'n Tweede beweegbare rooster om houers op te plaas, moet bokant die ander gebruik word en moet openings met 'n wydte van minstens 75 millimeter hê. Vuilwatertregters mag nie in twee stukke gemaak wees nie, tensy die aansluiter bokant die waterlyn van die sperder is en die las so gemaak is dat dit stewig en waterdig is.

31. URINALE

Urinale moet aan SABS 497 en SABS 924 „Vakurinale van vlekvrystaal" voldoen. Die bodem van die urinaal moet gelykmatig hel na 'n uitlaatsperder met 'n binnediameter van minstens 75 millimeter en moet voorsien wees van 'n doeltreffende, korrosiebestande koepelmetaalrooster met skarniere, wat groot genoeg is om die inhoud van die urinaal asook die spoeluitstorting vinnig en doeltreffend te laat deurloop.

Waar urinale nie in afsonderlike eenhede verdeel is nie, moet elke 600-millimeter-lengte van sodanige urinaal as gelykstaande aan 'n urinaaleenheid beskou word.

Waar bak-urinale gebruik word, moet die uitlaatpype met so 'n helling vanaf die toebehore aangelê word dat hulle in 'n geskikte en doeltreffende sperder of 'n geglasuurde kanaal wat na 'n sperder lei, uitloop.

Waar urinaalvakke in reekse is of nie in afsonderlike eenhede verdeel is nie, kan die bodem van die kanaal of van die urinaalreeks gelykmatig hel na 'n gemeenskaplike uitlaatsperder met 'n skarnierrooster soos by enkelvakurinale, maar in sulke gevalle moet die uitlaatsperder 'n binnediameter van minstens 100 millimeter hê.

Waar toestande verhinder dat die lip van 'n urinaalvak of -kanaal gelyk met die vloer is, moet die urinaal voorsien word van 'n trappie met 'n hoogte en breedte wat deur die Plaaslike Bestuur goedgekeur is.

Indien die Plaaslike Bestuur dit vereis, moet 'n aparte sperder vir elke vak voorsien word.

32. ROOSTERS

Goedgekeurde roosters van korrosiebestande metaal moet aan alle uitlate of oorlope van sanitêre toebehore aangebring word. Alle roosters moet so groot wees en moet so gemaak wees dat ruimskootse uitlaatruimte vir

29. FLUSHING VALVES

Where flushing valves are used, they shall deliver automatically a volume of water not less than and at a rate not less than that prescribed for flushing cisterns.

Adequate measures shall be taken to prevent back siphonage from the soil-water fittings into the water supply, which measures may consist of either a completely separate tank of sufficient capacity and height to secure satisfactory operation or an anti-siphonage device integral with the valve approved by the Local Authority.

30. SLOP HOPPERS

All slop hoppers shall be fitted with approved hinged corrosion-resistant metal gratings having openings not exceeding 20 millimetres in width. The water line shall be just below such grating and the area of the surface of the water shall be not less than the area of the spigot outlet of the fitting. A second movable grating for the support of receptacles shall be used above the other and shall have openings not less than 75 millimetres in width. Slop hoppers shall not be constructed in two pieces unless the junction is above the water line of the trap and the joint is constructed to render it firm and water-tight.

31. URINALS

Urinals shall comply with SABS 497 and SABS 924 "Stainless steel stall urinals". The bottom of the urinal shall be evenly graded to an outlet trap of an internal diameter of not less than 75 millimetres and shall be provided with an efficient corrosion-resistant hinged domical metal grating of such size as to be capable of rapidly and efficiently clearing the contents of the urinal, including the flush discharge.

Where urinals are not separated into single units, each 600 millimetres of length of such urinal shall be taken as being equivalent to a urinal unit.

Where basin urinals are used, the outlet pipes shall be carried from the fitting at a suitable fall so as to discharge into a suitable and efficient trap or into a glazed channel leading to a trap.

Where urinal stalls are in ranges or where they are not separated into single units, the invert of the channel or of the urinal range may be evenly graded to a common outlet trap complete with hinged grating as for single stall urinals, but in such cases the outlet trap shall be not less than 100 millimetres in internal diameter.

Where conditions prevent the lip of a urinal stall or channel from finishing flush with the floor, the urinal shall be provided with a step of a height and width approved by the Local Authority.

Where required by the Local Authority, a separate trap shall be provided for each stall.

32. GRATINGS

Approved gratings of corrosion-resistant metal shall be fitted to all outlets or overflows from sanitary fittings. All gratings shall be of such size and so constructed as to ensure ample outlet space for the rapid and efficient

die vinnige en doeltreffende afvoer van die water of ander vloeistof in sodanige toebehore verseker word.

33. VERBODE SANITÊRE TOEBEHORE

Geen sanitêre toebehore of enige ander toestel van enige soort hoegenaamd mag geïnstalleer word en geen tipe konstruksie mag gebruik word wat sal veroorsaak of moontlik sal veroorsaak dat dwarsverbinding van so 'n aard tussen 'n waterdistribusiestelsel en enige deel van 'n loodgietwerkstelsel ontstaan dat dit terugloop of heweling van sodanige sanitêre toebehore of ander toestel na sodanige waterdistribusiestelsel moontlik maak nie.

PYPE, SPERDERS EN MEEGAANDE TOEBEHORE

34. ALGEMEEN

Alle pype, sperders en meegaande toebehore moet vry van gebreke wees en moet aan die vereistes van hierdie regulasie voldoen. Alle riool-, vuilriool- en vuilpype, buigstukke, aansluiters en meegaande toebehore moet van geglasuurde erdewerk, asbessement, PVC, beton, pikgeïmpregneerde vesels of gietyster gemaak wees. Alle vuilwaterpype en rioollugpype moet van gietyster, gegalvaniseerde staal, getrokke lood, koper, geelkoper, asbessement of PVC gemaak wees.

Alle sperders moet van geglasuurde erdewerk, porselein, glasporselein, lood, geelkoper, koper, gietyster, gegalvaniseerde sagtestaal of vlekvrye legerings gemaak wees of 'n porseleinemalje-afwerking aan die binnekant hê. Hulle moet binne 'n gladde waterdeurgang van die volle boring hê en die nominale binnediameter moet, behalwe in die geval van sluksperders, gelyk wees aan dié van die vuilwater-, vuil- of vuilrioolpype waarmee hulle verbind is.

35. VUILPYPE, VUILWATERPYPE EN RIOOLLUGPYPE EN MEEGAANDE TOEBEHORE

Vuilpype, vuilwaterpype en rioollugpype en toebehore van gietyster, koper, asbessement of ongeplastiseerde polivinielchloried (PVC) moet voldoen aan die toepaslike Suid-Afrikaanse standaardspesifikasies, soos volg:

SABS 461	Dunwandige koperpype vir water, gas en sanitasie
SABS 721	Asbessement drek-, vuilwater-, en lugpype en toebehore
SABS 746	Gietysterpype en -hulpstukke vir riool-vuil, afvalwater en ventilasie
SABS 791	Ongeplastiseerde polivinielchloried-(OPVC-)vuilriool- en -rioolpype en -toebehore
SABS 967	Vuil-, vuilwater- en rioollugpype en toebehore van ongeplastiseerde polivinielchloried (OPVC)

Vuilpype, vuilwaterpype en rioollugpype en meegaande toebehore van gegalvaniseerde staal, lood of koper moet aan die vereistes van tabel II voldoen.

discharge of the water or other liquid contained in such fittings.

33. PROHIBITED SANITARY FITTINGS

No sanitary fittings nor any other device of any kind whatsoever shall be installed nor shall any type of construction be resorted to that will, or will be likely to, provide any cross connection between a water distribution system and any part of a plumbing system of such a nature as to render possible backflow or siphonage from such sanitary fitting or other device into such water distribution system.

PIPES, TRAPS, AND ASSOCIATED FITTINGS

34. GENERAL

All pipes, traps, and associated fittings shall be free from defects and shall comply with the requirements of this regulation. All drain, sewer, and soil pipes, bends, junctions, and associated fittings shall be of glazed earthenware, asbestos cement, PVC, concrete, pitch-impregnated fibre, or cast iron. All waste pipes and vent pipes shall be of cast iron, galvanized steel, drawn lead, copper, brass, asbestos cement, or PVC.

All traps shall be of glazed earthenware, porcelain, vitreous china, lead, brass, copper, cast iron, galvanized mild steel, or stainless alloys or shall be porcelain enamelled inside. They shall have smooth interior water-ways of full-sized bore and, except in the case of resealing traps, their nominal inside diameter shall be equal to that of the waste, soil, or sewer pipes with which they are connected.

35. SOIL, WASTE, AND VENT PIPES AND ASSOCIATED FITTINGS

Soil, waste, and vent pipes and fittings of cast iron, copper, asbestos cement, or unplasticized polyvinyl chloride (PVC) shall comply with the relevant South African Standard Specifications as follows:

SABS 461	Light gauge copper tubes for water, gas and sanitation
SABS 721	Asbestos cement soil, waste, and ventilating pipes and fittings
SABS 746	Cast iron soil, waste water, and ventilating pipes and fittings
SABS 791	Unplasticized polyvinyl chloride (UPVC) sewer and drain pipes and fittings
SABS 967	Unplasticized polyvinyl chloride (UPVC) soil, waste, and vent pipes and fittings

Soil, waste, and vent pipes and associated fittings of galvanized steel, lead, or copper shall conform to the requirements of Table II.

TABEL II

DIKTE EN MASSA VAN VUILPYPE, VUILWATERPYPE EN RIOOLLUGPYPE VAN GEGALVANISEERDE STAAL, LOOD EN KOPER

1	2	3	4	5
Nominale grootte, millimeter	Gegalvaniseerde staal		Lood	Koper
	Minimum dikte, millimeter	Minimum massa, kilogram per meter	Minimum massa, kilogram per meter	Minimum dikte, millimeter
32	4·05	3·84	4·46	1·22
40	4·05	4·43	5·46	1·22
50	4·5	6·17	5·95	1·22
65	4·5	7·90	7·44	1·22
80	4·85	10·1	8·93	1·42
90	4·85	11·6	12·90	1·42
100	5·4	14·4	13·88	1·63
125	5·4	17·8	23·81	—
150	5·4	21·2	29·76	—

36. VUILRIOOL- EN RIOOLPYPE EN MEEGAANDE TOEBEHORE VAN ANDER MATERIAAL AS GIETYSTER

Alle vuilriool- en rioolpype van geglasuurde erdewerk, asbessement, pikgeïmpregneerde vesels of beton moet voldoen aan die toepaslike Suid-Afrikaanse standaardspesifikasies, soos volg:

SABS 559	Riool- en afvoerpype en toebehore van geglasuurde erdewerk
SABS 676	Drukpype van gewapende beton
SABS 677	Nie-drukpype van beton
SABS 819	Asbessementriool- en vuilrioolpype
SABS 921	Pikgeïmpregneerde veselpype en -koppelings

37. GIETYSTERVUILRIOOLPYPE, SPERDERS EN MEEGAANDE TOEBEHORE

Alle gietystervuilrioolpype, sperders, en meegaande toebehore moet sterk, netjies afgewerkte gietstukke wees wat donkergrys is waar dit breek en wat maklik geboor of gevyl en van moerdraad voorsien kan word. Die pype moet suiwer, glad, silindries en reguit wees en die binne- en buite-oppervlakke daarvan moet so naby as moontlik konsentries wees. Die pype moet 'n suiwer klank hê wanneer hulle vir foute getoets word deur hulle oral met 'n ligte handhamer te tik. Al sodanige pype, sperders en meegaande toebehore moet doeltreffend teen korrosie beskerm word deur hulle van binne en van buite met 'n lagie van 'n geskikte, korrosiewerende bitumen, teer of 'n ander goedgekeurde mengsel te bedek. Die dikte van sodanige pype, sperders en meegaande toebehore en die massa, die binnediepte van die sok en die kalfaatruimte van pype moet wees soos in tabel III uiteengesit.

TABLE II

THICKNESSES AND MASSES OF GALVANIZED STEEL, LEAD, AND COPPER SOIL, WASTE, AND VENT PIPES

1	2	3	4	5
Nominal size, millimetres	Galvanized steel		Lead	Copper
	Minimum thickness, millimetres	Minimum mass, kilograms per metre	Minimum mass, kilograms per metre	Minimum thickness, millimetres
32	4·05	3·84	4·46	1·22
40	4·05	4·43	5·46	1·22
50	4·5	6·17	5·95	1·22
65	4·5	7·90	7·44	1·22
80	4·85	10·1	8·93	1·42
90	4·85	11·6	12·90	1·42
100	5·4	14·4	13·88	1·63
125	5·4	17·8	23·81	—
150	5·4	21·2	29·76	—

36. SEWER AND DRAIN PIPES AND ASSOCIATED FITTINGS OF MATERIALS OTHER THAN CAST IRON

All sewer and drain pipes of glazed earthenware, asbestos cement, pitch-impregnated fibre, or concrete shall comply with the relevant South African Standard Specifications as follows:

SABS 559	Glazed earthenware drain and sewer pipes and fittings
SABS 676	Reinforced concrete pressure pipes
SABS 677	Concrete non-pressure pipes
SABS 819	Asbestos cement drain and sewer pipes
SABS 921	Pitch-impregnated fibre pipes and couplings

37. CAST IRON SEWER PIPES, TRAPS, AND ASSOCIATED FITTINGS

All cast iron sewer pipes, traps, and associated fittings shall be sound, neatly dressed castings which are dark grey on fracture and capable of being easily drilled, tapped, and filed. The pipes shall be true, smooth, cylindrical, and straight and their inner and outer surfaces shall be as nearly as practicable concentric. The pipes shall ring clearly when tested for soundness by being struck all over with a light hand-hammer. All such pipes, traps, and associated fittings shall be effectively protected against corrosion by being coated on both the inside and the outside with a suitable corrosion-resistant bitumen, tar, or other approved compound. The thickness of such pipes, traps, and associated fittings and the mass, internal depth of socket, and caulking space of pipes shall be as set out in Table III

TABEL III

DIAMETER, DIKTE, MASSA, BINNEDIEPTE VAN SOKKE EN KALFAATRUIMTES VAN GIETYSTERVUILRIOOLPYPE, SPERDERS EN MEEGAANDE TOEBEHORE

1	2	3	4	5
Binne-diameter, millimeter	Minimum dikte, millimeter	Minimum massa van pype (met inbegrip van sok en gekraalde tap of flense), kilogram per meter	Minimum binne-diepte van sok van pype, millimeter	Minimum vrye kalfaat-ruimte met pype in posisie, millimeter
100	9·5	25·95	76·2	7·9
150	9·5	37·21	88·9	9·5
200	11·9	61·18	101·6	9·5
225	12·7	72·92	101·6	9·5

38. VETVANGERS

Vetvangers moet, indien dit van geglasuurde erdewerk gemaak is, aan SABS 559 voldoen.

39. RIOOLPUTTE MET SPERDERS

Rioolputte met sperders moet, indien dit van geglasuurde erdewerk gemaak is, aan SABS 559 voldoen en moet met 'n goedgekeurde rooster bedek wees waarvan die stawe hoogstens 10 millimeter van mekaar af is.

40. SLUKSPERDERS

Alle sluksperders moet van 'n tipe wees wat deur die Plaaslike Bestuur goedgekeur is.

41. VERBODE TOEBEHORE

Geen enkele of dubbele T-stuk of T-vertakking met moerdraad of enige toebehore of verbinder wat abnormale belemmering van die afvloei deur 'n vuilriool-, vuilwater- of vuilpyp veroorsaak, mag gebruik word nie. Boorwerk aan enige pyp wat in die vuilrioolstelsel gebruik word nadat dit geïnstalleer is en die sny van moerdraad in sodanige pyp, is verbode.

Blinde ente in vuilwater- of vuilpype word nie toegelaat nie behalwe waar dit nodig is om die pyp vir skoonmaakdoeleindes te verleng, en alle sodanige blinde ente moet toeganklik wees. Geen oorstaande aansluiters mag in 'n vuilrioolstelsel gebruik word nie tensy die ingeslote hoek tussen die twee ingaande pype nie 90 grade oorskry nie. Los sokke mag slegs gebruik word waar geen ander vorm van konstruksie prakties moontlik is nie, en dan slegs met goedkeuring van die Plaaslike Bestuur.

42. DRAADGESNYDE TOEBEHORE

Alle draadgesnyde toebehore moet van koper, geelkoper, smeebare gietyster of gegalvaniseerde sagtestaal gemaak wees en moet 'n versonke patroon en aan die binnekant 'n gladde waterdeurgang hê en die skroefdraad daarvan moet in soliede materiaal gesny wees.

TABLE III

DIAMETERS, THICKNESSES, MASSES, INTERNAL DEPTHS OF SOCKETS, AND CAULKING SPACES OF CAST IRON SEWER PIPES, TRAPS, AND ASSOCIATED FITTINGS

1	2	3	4	5
Internal diameter, millimetres	Minimum thickness, millimetres	Minimum mass of pipes (including socket and beaded spigot or flanges), kilograms per metre	Minimum internal depth of socket of pipes, millimetres	Minimum clear caulking space with pipes in position, millimetres
100	9·5	25·95	76·2	7·9
150	9·5	37·21	88·9	9·5
200	11·9	61·18	101·6	9·5
225	12·7	72·92	101·6	9·5

38. GREASE TRAPS

Grease traps, if of glazed earthenware, shall comply with SABS 559.

39. TRAPPED GULLIES

Trapped gullies, if of glazed earthenware, shall comply with SABS 559, and shall be covered with an approved grating, the bars of which shall be not more than 10 millimetres apart.

40. RESEALING TRAPS

All resealing traps shall be of a type approved by the Local Authority.

41. PROHIBITED FITTINGS

No single or double tee or tapped tee branch or any fitting or connection that offers abnormal obstruction to flow through a sewer, waste, or soil pipe shall be used. The drilling and tapping of any pipe used in the sewerage system after its installation is prohibited.

Dead ends in waste or soil pipes shall not be permitted except where necessary to extend the pipe for cleaning purposes, and all such dead ends shall be accessible. No opposite junction shall be used in a sewerage system unless the included angle between the two entering pipes does not exceed 90 degrees. Loose sockets shall be used only where no other form of construction is practicable and then only with the approval of the Local Authority.

42. THREADED FITTINGS

All threaded fittings shall be of copper, brass, malleable cast iron, or galvanized mild steel and shall be of recessed pattern with smooth interior waterways and with threads tapped out of solid material.

43. WATERSLOTTE IN DIE SPERDERS VAN TOEBEHORE

Behalwe in die geval van sluksperders moet die maksimum diepte van 'n waterslot in alle sperders van toebehore 100 millimeter wees. By tweepypstelsel-installasies moet die minimum diepte van 'n waterslot in alle sperders van toebehore 40 millimeter wees in die geval van vuilwatertoebehore en 50 millimeter in die geval van drekwatertoebehore. By eenpypstelsel-installasies moet die minimum diepte van 'n waterslot 65 millimeter in die geval van vuilwatertoebehore en 50 millimeter in die geval van drekwatertoebehore wees.

Elke sperder waarvan die waterslot nie maklik bygekom kan word nie, moet 'n verwyderbare steekoog van voldoende grootte hê wat deur die waterslot beskerm word. Elke sperder moet selfreinigend wees.

Sperders wat vir afsluiting afhanklik is van beweegbare dele of ontoeganklike binne-afskortings, mag nie gebruik word nie. Vetvangers kan egter afskortings van korrosiebestande materiaal hê wat as integrerende dele daarvan gegiet is.

44. VUILWATEROORLOOP

Waar sanitêre toebehore van 'n oorloop voorsien is, moet sodanige oorloop, behalwe in die geval van bakke en opgaartenks, naby die toebehore bokant die waterslot van laasgenoemde en op die inlaat van die meegaande sperder aansluit en moet dit so geplaas wees dat dit maklik bygekom kan word vir skoonmaakdoeleindes.

45. INGEBOUDE PYPE VIR REËNWATER

Alle reënwatergeutpype, indien dit so ingebou is dat dit nie bygekom kan word nie, moet gemaak wees van gietyster wat doeltreffend bestand gemaak is teen korrosie, van gegalvaniseerde sagtestaal met skroefdraad, of van ander goedgekeurde drukpype wat 'n hidrouliese drukhoogte van twee keer die hoogte van die pyp kan weerstaan.

46. VERBINDINGS

Verbindings tussen vuilriole en toebehore moet so gemaak wees dat lekkasie by die lasse voorkom word en dat 'n mate van beweging by die lasse kan plaasvind waar dit nodig is.

47. ASFALTMENGSEL

Die asfaltmengsel wat vir pyplasse gebruik word, mag nie by normale temperatuur bros word nie, mag nie so sag word wanneer dit aan 'n temperatuur van 70°C blootgestel word dat die las sy doeltreffendheid verloor nie, en mag nie oplosbaar wees in enige soort vuilwater wat deur die vuilrioolstelsel afgevoer word nie.

48. SOLDEERSEL

Soldeersel wat vir loodgieterswerk gebruik word, moet aan die vereistes van SABS 24 „Sagte soldeersel" voldoen.

PYP- EN VUILRIOOLGROOTTES

49. AFVOEREENHEDE

Vir die doel van hierdie regulasie word die tempo waarteen rioolvuil in 'n pyp of vuilriool in afgevoer word of daardeur vloei, in eenhede gemeet wat hierin „afvoereenhede" (afgekort a.e.) genoem word.

43. SEALS IN FITTING TRAPS

Except in the case of resealing traps the maximum depth of water seal in all fitting traps shall be 100 millimetres. For two-pipe system installations the minimum depth of water seal in all fitting traps shall be 40 millimetres for waste-water fittings and 50 millimetres for soil-water fittings. For one-pipe system installations the minimum depth of water seal shall be 65 millimetres for waste-water fittings and 50 millimetres for soil-water fittings.

Every trap of which the seal is not readily accessible shall be provided with a removable cleaning eye of sufficient size protected by the water seal. Every trap shall be self-cleansing.

Traps which depend for their seal upon movable parts or inaccessible interior partitions shall not be used. Grease traps may, however, have integrally cast partitions of corrosion-resistant material.

44. WASTE OVERFLOW

Where any sanitary fitting is provided with an overflow, such overflow shall, except in the case of cisterns and storage tanks, be connected close to its fitting above the water seal of the latter and on the inlet of the associated trap and shall be so arranged that it is readily accessible for cleaning.

45. BUILT-IN PIPES FOR RAINWATER

All rainwater down pipes if built in so as to be inaccessible shall be of cast iron which has been effectively proofed against corrosion, of screwed galvanized mild steel, or of other approved pressure piping capable of withstanding a hydraulic head equal to twice the height of the pipe.

46. JOINTING

Jointing of sewers and fittings shall be made so as to prevent leakage from the joints, and where necessary, to allow of some movement of the joints.

47. ASPHALTIC COMPOUND

Asphaltic compound used for pipe joints shall not be brittle at normal temperature, shall not soften sufficiently to destroy the effectiveness of the joint when subjected to a temperature of 70°C, and shall not be soluble in any of the wastes carried by the sewerage system.

48. SOLDER

Solder used for plumbing shall comply with the requirements of SABS 24 "Soft solders".

SIZES OF PIPES AND SEWERS

49. DISCHARGE UNITS

For the purposes of this regulation the rate at which sewage is discharged into or at which it flows through a pipe or sewer shall be measured in units which are herein referred to as "discharge units" (abbreviated reference d.u.).

Die tempo waarteen rioolvuil deur 'n pyp of 'n vuilriool by 'n bepaalde punt daarin vloei, is die som van die tempo's waarteen sodanige rioolvuil ooreenkomstig regulasie 50 in sodanige pyp of vuilriool in afgevoer word by alle punte bokant daardie bepaalde punt.

50. AFVOERTEMPO VANAF SANITÊRE TOEBEHORE

Daar word geag dat sanitêre toebehore wat voorsien is van 'n uitlaat met 'n diameter in kolom 1 van tabel IV genoem, rioolvuil afvoer teen die tempo wat vir sodanige sanitêre toebehore in kolom 2 of kolom 3 van sodanige tabel aangegee word, na gelang van wat toepaslik is.

TABEL IV

AFVOERTEMPO VANAF SANITÊRE TOEBEHORE

1	2	3
	Afvoertempo in afvoereenhede (a. e.)	
Diameter van uitlaat van sanitêre toebehore, millimeter	Sanitêre toebehore wat in 'n privaatwoonhuis of wooneenheid of in woonstelle geïnstalleer word	Sanitêre toebehore wat in 'n ander gebou as 'n privaatwoonhuis of wooneenheid of in woonstelle geïnstalleer word
32	1	1
40	1	2
50	1½	3
65	2	4
75	2½ (1½*)	5 (3*)
100	3	6

* Vir 'n urinaal of 'n groep urinale met 'n gesamentlike sperder.

51. ONDERSKEID TUSSEN HORISONTALE EN VERTIKALE PYPE

Vir die doel van die regulasies wat in hierdie hoofstuk vervat is, word geag dat 'n pyp wat onder 'n hoek van minder as 45 grade met die horisontale skuins afloop, 'n horisontale pyp is en dat enige ander pyp 'n vertikale pyp is.

52. INHOUDSVERMOË VAN HORISONTALE PYPE

Daar word geag dat 'n horisontale pyp of vuilriool met 'n diameter soos in kolom 1 van tabel V aangegee, 'n maksimum afvoervermoë het soos wat in kolom 2 vir sodanige pyp en in kolom 3, 4, 5 en 6 vir sodanige vuilriool aangegee word, en die totale afvoertempo van al die sanitêre toebehore wat in sodanige pyp of privaatvuilriool afvoer, mag nie sodanige maksimum afvoervermoë oorskry nie.

The rate at which sewage flows through a pipe or sewer at a particular point therein shall be the sum of the rates at which such sewage is discharged into such pipe or sewer in accordance with Regulation 50 at all points above that particular point.

50. RATES OF DISCHARGE FROM SANITARY FITTINGS

Any sanitary fitting, with an outlet of a diameter referred to in Column 1 of Table IV shall be deemed to discharge sewage at the rate stated for such sanitary fitting in Column 2 or Column 3 of such table, whichever is applicable.

TABLE IV

RATES OF DISCHARGE FROM SANITARY FITTINGS

1	2	3
	Rate of discharge in discharge units (d. u.)	
Diameter of sanitary fitting outlet, millimetres	Sanitary fitting installed in a private dwelling house or dwelling unit/flats	Sanitary fitting installed in a building other than a private dwelling house or dwelling unit/flats
32	1	1
40	1	2
50	1½	3
65	2	4
75	2½ (1½*)	5 (3*)
100	3	6

* For a urinal or a group of urinals with a common trap.

51. DISTINCTION BETWEEN HORIZONTAL AND VERTICAL PIPES

For the purposes of the regulations contained in this chapter, any pipe which is inclined to the horizontal at an angle of less than 45 degrees shall be deemed to be a horizontal pipe, and any other pipe shall be deemed to be a vertical pipe.

52. CAPACITIES OF HORIZONTAL PIPES

Every horizontal pipe or sewer having a diameter set out in Column 1 of Table V shall be deemed to have a maximum discharge capacity set out in Column 2 for such pipe and set out in Columns 3, 4, 5, and 6 for such sewer, and the aggregate rate of discharge of all the sanitary fittings discharging into any such pipe or private sewer shall not exceed such maximum discharge capacity.

TABEL V

MAKSIMUM AFVOERVERMOË VIR VUILRIOLE EN VIR HORISONTALE PYPE

1	2	3	4	5	6
Diameter van pyp of gekombineerde privaat vuilriool of privaatvuilriool, millimeter	Horisontale pyp: afvoervermoë, a.e.	Vuilriole met 'n gradiënt van			
		1:200 a.e.	1:100 a.e.	1:50 a.e.	1:25 a.e.
32	1	—	—	—	—
40	3	—	—	—	—
50	6	—	—	21	26
65	12	—	—	24	31
75	32	—	36	42	50
100	160	—	180	216	250
125	360	—	390	480	575
150	620	—	700	840	1 000
200	1 400	1 400	1 600	1 920	2 300
250	2 500	2 500	2 900	3 500	4 200
300	3 900	3 900	4 600	5 600	6 700
375	7 000	7 000	8 300	10 000	12 000

TABLE V

MAXIMUM DISCHARGE CAPACITY FOR SEWERS AND FOR HORIZONTAL PIPES

1	2	3	4	5	6
Diameter of pipe or combined private sewer or private sewer, millimetres	Horizontal pipe, discharge capacity, d.u.	Discharge capacity for sewers with a gradient of			
		1:200 d.u.	1:100 d.u.	1:50 d.u.	1:25 d.u.
32	1	—	—	—	—
40	3	—	—	—	—
50	6	—	—	21	26
65	12	—	—	24	31
75	32	—	36	42	50
100	160	—	180	216	250
125	360	-	390	480	575
150	620	-	700	840	1 000
200	1 400	1 400	1 600	1 920	2 300
250	2 500	2 500	2 900	3 500	4 200
300	3 900	3 900	4 600	5 600	6 700
375	7 000	7 000	8 300	10 000	12 000

53. INHOUDSVERMOË VAN VERTIKALE PYPE

Die diameter van elke vertikale pyp moet sodanig wees dat—

(*a*) die tempo waarteen rioolvuil deur sodanige pyp vloei, op enige punt nie die tempo oorskry wat vir 'n pyp van daardie diameter in kolom 2 of kolom 3 van tabel VI, watter ook al van toepassing is, aangegee word nie; en

(*b*) die tempo waarteen rioolvuil sodanige pyp by enige punt binnegaan (indien die hoogte van die nat gedeelte van sodanige pyp twee verdiepings bokant grondvloerhoogte oorskry), nie die tempo oorskry wat vir die pyp in kolom 4 van tabel VI aangegee word nie: Met dien verstande dat waar rioolvuil sodanige pyp by twee of meer opeenvolgende punte binnegaan waarvan nie een verder as 2·4 meter van 'n ander af is nie, daar vir die doel van hierdie paragraaf geag word dat al die rioolvuil wat die pyp by sodanige twee of meer opeenvolgende punte binnegaan, sodanige pyp by die onderste een van sodanige twee of meer opeenvolgende punte, na gelang van die geval, binnegaan.

53. CAPACITIES OF VERTICAL PIPES

Every vertical pipe shall be of such a diameter that—

(*a*) the rate at which sewage flows through such pipe at any point does not exceed the rate shown for the pipe of that diameter in Column 2 or Column 3 of Table VI, whichever is applicable; and

(*b*) the rate at which sewage enters such pipe at any point (if the wetted portion of such pipe exceeds two storeys in height above ground floor level) does not exceed the rate shown for the pipe in Column 4 of Table VI: Provided that wherever sewage enters any such pipe at two or more consecutive points, neither or none of which is more than 2·4 metres from any other, all the sewage entering the pipe at such two or more consecutive points shall for the purposes of this paragraph be deemed to enter such pipe at the lower or lowest of such two or more consecutive points, as the case may be.

TABEL VI

INHOUDSVERMOË VAN VERTIKALE PYPE

1	2	3	4
Diameter van pyp, millimeter	Maksimum vloeitempo (a.e.)		Maksimum ingangstempo (in a.e.) in pyp by enige punt, indien die hoogte van die nat gedeelte van die pyp twee verdiepings bokant grondvloerhoogte oorskry
	Waar die hoogte van die nat gedeelte van die pyp nie twee verdiepings bokant grondvloerhoogte oorskry nie	Waar die hoogte van die nat gedeelte van die pyp twee verdiepings bokant grondvloerhoogte oorskry	
32	2	2	1
40	4	8	2
50	10	24	6
65	20	42	9
75	30	60	16
100	240	500	90
125	540	1 100	200
150	960	1 900	350
200	2 200	3 600	600
250	3 800	5 600	1 000
300	6 000	8 400	1 500

TABLE VI

CAPACITIES OF VERTICAL PIPES

1	2	3	4
Diameter of pipe, millimetres	Maximum rate of flow, d.u.		Maximum rate of entry (in d.u.) into pipe at any point, if wetted portion of pipe exceeds two storeys in height above ground floor level
	Where wetted portion of pipe does not exceed two storeys in height above ground floor level	Where wetted portion of pipe exceeds two storeys in height above ground floor level	
32	2	2	1
40	4	8	2
50	10	24	6
65	20	42	9
75	30	60	16
100	240	500	90
125	540	1 100	200
150	960	1 900	350
200	2 200	3 600	600
250	3 800	5 600	1 000
300	6 000	8 400	1 500

54. MINIMUM GROOTTE VAN PYPE, ENS.

Behoudens die bepalings van regulasie 52, mag geen vuilpyp, privaatvuilriool of vuilwaterriool 'n diameter van minder as 100 millimeter hê nie, behalwe dat 'n vuilwaterriool wat hoogstens 4·6 meter lank is of 'n vuilpyp wat slegs urinale bedien, 'n diameter wat minder as 100 millimeter maar nie minder as 50 millimeter is nie kan hê.

VENTILASIE

55. RIOOLLUGPYPE, ALGEMEEN

(1) (*a*) Elke vuilpyp, vuilwaterriool en vuilriool, met inbegrip van elke tak daarvan wat langer as 6 meter is, soos gemeet van die aansluiting daarvan by 'n geventileerde privaatvuilriool of 'n geventileerde vuilpyp tot by die aansluitpunt by die drekwatertoebehore wat dit bedien, moet van 'n ventilasiepyp voorsien wees wat vanaf die hoogste gerieflike punt daarvan boontoe loop.

(*b*) Elke vuilwaterpyp en vuilwaterpyptak wat langer as 6 meter is, soos gemeet van die afvoerpunt daarvan oor 'n rioolput of van die aansluiting daarvan by 'n geventileerde vuilwaterpyp of geventileerde vuilpyp, na

54. MINIMUM SIZE OF PIPES, ETC.

Subject to the provisions of Regulation 52, no soil pipe, private sewer, or waste sewer shall be less than 100 millimetres in diameter except that a waste sewer not exceeding 4·6 metres in length or a soil pipe serving urinals only may be less than 100 millimetres but not less than 50 millimetres in diameter.

VENTILATION

55. VENTS: GENERAL

(1) (*a*) Every soil pipe, waste sewer, and sewer, including every branch thereof which exceeds 6 metres in length, measured from its junction with a ventilated private sewer or a ventilated soil pipe to its point of connection with the soil fitting which it serves, shall be provided with a ventilation pipe leading upwards from its highest convenient point.

(*b*) Every waste pipe and branch waste pipe which exceeds 6 metres in length, measured from its point of discharge over a gully or from its junction with a ventilated waste pipe or ventilated soil pipe, as the case may

gelang van die geval, tot by die aansluitpunt by die vuilwatertoebehore wat dit bedien, moet van 'n ventilasiepyp voorsien wees wat vanaf die hoogste gerieflike punt daarvan boontoe loop.

(2) Behoudens die bepalings van enige andersluidende regulasie wat in hierdie hoofstuk vervat is, moet daar minstens een rioollugpyp met 'n diameter van 100 millimeter vir elke privaatvuilriool wees.

Die diameter van 'n rioollugpyp en van 'n slukpyp moet volgens die lengte daarvan en volgens die totale getal afvoereenhede wat daarmee verbind is, bepaal word soos in tabel VII aangegee. Geen rioollugpyp wat drekwatertoebehore bedien, mag 'n diameter van minder as 50 millimeter hê nie.

be, to its point of connection with the waste water fitting which it serves shall be provided with a ventilation pipe leading upwards from its highest convenient point.

(2) Subject to the provisions of any regulations to the contrary contained in this chapter, there shall be at least one 100 millimetre diameter vent for every private sewer.

The diameter of a vent and of an anti-siphon pipe shall be determined from its length and from the total of discharge units connected thereto as provided in Table VII. No vent serving a soil fitting shall have a diameter less than 50 millimetres.

TABEL VII

DIAMETER EN LENGTE VAN RIOOLLUGPYPE

1	2	3	4	5	6	7	8	9	10	11	12	13
Grootte van stampyp, millimeter	Totale getal a.e. wat met stampyp verbind is	Diameter van rioollugpyp, mm										
		32	40	50	65	75	100	125	150	200	250	300
		Maksimum lengte van rioollugpyp, m										
32	2	9										
40	8	15	45									
40	10	9	30									
50	12	9	23	60								
50	20	8	15	45								
65	42		9	30	91							
75	10		13	44	108	317						
75	21		9·5	33	82	245						
75	53		8	29	70	207						
75	102		7·5	26	64	189						
100	43			10·5	26	76	297					
100	140			8	20	59	229					
100	320			7	17	50	194					
100	530			6·5	15	46	177					
125	190				8·5	25	98	300				
125	490				6·5	19	75	232				
125	940				5·5	16	63	204				
125	1 400				5	15	58	178				
150	500					10	40	122	305			
150	1 100					8	30	94	236			
150	2 000					7	26	79	200			
150	2 900					6	23	73	181			
200	1 800						9·5	29	73	287		
200	3 400						7·5	22	56	220		
200	5 600						6	19	47	186		
200	7 600						5·5	17	43	169		
250	4 000							9·5	24	93	293	
250	7 200							7·5	18	72	224	
250	11 000							6	15·5	61	191	
250	15 000							5·5	14	55	174	
300	7 300								9·5	37	116	287
300	13 000								7·5	28·5	90	220
300	20 000								6	24	76	186
300	26 000								5·5	22	69	169
375	15 000									12	38	93
375	25 000									9·5	29	72
375	38 000									8	25	61
375	50 000									7·5	22·5	55

TABLE VII

DIAMETER AND LENGTH OF VENTS

1	2	3	4	5	6	7	8	9	10	11	12	13
Size of stack, millimetres	Total d.u. connected to stack	Diameter of vent, millimetres										
		32	40	50	65	75	100	125	150	200	250	300
		Maximum length of vent, metres										
32	2	9										
40	8	15	45									
40	10	9	30									
50	12	9	23	60								
50	20	8	15	45								
65	42		9	30	91							
75	10		13	44	108	317						
75	21		9·5	33	82	245						
75	53		8	29	70	207						
75	102		7·5	26	64	189						
100	43			10·5	26	76	297					
100	140			8	20	59	229					
100	320			7	17	50	194					
100	530			6·5	15	46	177					
125	190				8·5	25	98	300				
125	490				6·5	19	75	232				
125	940				5·5	16	63	204				
125	1 400				5	15	58	178				
150	500					10	40	122	305			
150	1 100					8	30	94	236			
150	2 000					7	26	79	200			
150	2 900					6	23	73	181			
200	1 800						9·5	29	73	287		
200	3 400						7·5	22	56	220		
200	5 600						6	19	47	186		
200	7 600						5·5	17	43	169		
250	4 000							9·5	24	93	293	
250	7 200							7·5	18	72	224	
250	11 000							6	15·5	61	191	
250	15 000							5·5	14	55	174	
300	7 300								9·5	37	116	287
300	13 000								7·5	28·5	90	220
300	20 000								6	24	76	186
300	26 000								5·5	22	69	169
375	15 000									12	38	93
375	25 000									9·5	29	72
375	38 000									8	25	61
375	50 000									7·5	22·5	55

56. RIOOLLUGPYPUITLAAT

(1) Elke rioollugpyp of slukpyp moet opwaarts gevoer word sonder verkleining van diameter tot 'n hoogte van minstens 4·5 meter bokant afgewerkte grondhoogte, 300 millimeter bokant die uitgangsplek deur die dak, of 1 meter bokant dakrandhoogte, watter ook al die grootste hoogte is, of tot sodanige groter hoogte of tot sodanige posisie as wat die Ingenieur mag vereis, met inagneming van die aantreklikheid van aanliggende eiendom.

(2) Die oop ent van 'n rioollugpyp wat deur 'n gebou gaan of daaraan bevestig is, moet minstens 2 meter bo die bokant van 'n venster, deur of ander opening in daardie gebou of in enige ander gebou wees wat binne 'n horisontale afstand van 6 meter van genoemde oop ent is: Met dien verstande dat waar toegang tot die bo-oppervlak van die dak of 'n deel daarvan vir enige ander doel as instandhouding of herstel verleen word, die pyp, tensy die Ingenieur dit anders toelaat, minstens 2·5 meter bokant sodanige dak of deel daarvan moet uitsteek.

(3) Waar 'n nuwe gebou of aanbouing aan 'n bestaande gebou enige vensters, deure of ander openings het wat so geplaas is dat die bepalings van subregulasie (2) van hierdie regulasie oortree word ten opsigte van 'n bestaande rioollugpyp, hetsy op dieselfde of op 'n ander eiendom, moet die eienaar van sodanige nuwe gebou of aanbouing op eie onkoste al die dinge doen wat nodig mag wees om sodanige rioollugpyp aan die genoemde subregulasie te laat voldoen.

(4) Geen skoorsteen of ander trekgang mag vir die ventilering van 'n vuilriool- of vuil- of vuilwaterpyp gebruik word nie.

57. HELLING VAN RIOOLLUGPYPE EN SLUKPYPE

Aan elke rioollugpyp en elke slukpyp moet so 'n helling gegee word dat daar vir 'n deurlopende val voorsiening gemaak word, sonder die tussenvoeging van 'n sperder, van die oop ent daarvan tot by die aansluitpunt by die vuilwaterpyp, vuilpyp, privaatvuilriool of gekombineerde privaatvuilriool wat dit bedien.

58. TAKRIOOLLUGPYPE EN -SLUKPYPE

Elke rioollugpyp en elke slukpyp moet, tensy dit onafhanklik boontoe lei, met 'n hoofrioollugpyp verbind wees by 'n punt minstens 150 millimeter bo die bokant van die hoogste toebehore wat deur die hoofrioollugpyp bedien word.

59. TUSSENVERBINDING VAN RIOOLLUGPYPE VANAF DREK- EN VUILWATERTOEBEHORE

Waar die tweepypstelsel gebruik word, mag 'n pyp wat 'n vuilpyp of drekwatertoebehore ventileer en 'n pyp wat 'n vuilwaterpyp of -toebehore ventileer nie met mekaar verbind wees nie, tensy die vuilwatertoebehore wat so geventileer word, van 'n sperder voorsien is wat 'n waterslot met 'n diepte van minstens 65 millimeter het.

56. VENT OUTLETS

(1) Every vent or anti-siphon pipe shall be carried upwards without diminution of diameter to a height of at least 4·5 metres above finished ground level, 300 millimetres above place of emergence through the roof, or 1 metre above eaves level, whichever is the greatest height or to such greater height or to such position as the Engineer may require, having regard to the amenity of adjoining property.

(2) The open end of any vent passing through or attached to a building shall be not less than 2 metres above the head of any window, door, or other opening in that building or in any other building, which is within a horizontal distance of 6 metres of the said open end: Provided that where access to the upper surface of the roof or any part thereof is provided for any purpose other than that of maintenance or repair the pipe shall, unless the Engineer otherwise permits, extend at least 2·5 metres above such roof or part thereof.

(3) Where any new building or any addition to an existing building has any windows, doors, or other openings so placed that the provisions of Subregulation (2) of this regulation are contravened in respect of an existing vent whether on the same or any other property, the owner of such new building or addition shall at his own expense do all such things as may be necessary to bring such existing vent into compliance with the said subregulation.

(4) No chimney or other flue shall be used for ventilating any sewer or soil or waste pipe.

57. GRADING OF VENTS AND ANTI-SIPHON PIPES

Every vent and every anti-siphon pipe shall be so graded as to provide a continuous fall without the interposition of a trap from its open end to the point of connection to the waste pipe, soil pipe, private sewer, or combined private sewer which it serves.

58. BRANCH VENTS AND ANTI-SIPHON PIPES

Every vent and every anti-siphon pipe shall, unless carried up independently, be connected to a main vent at a point at least 150 millimetres above the top of the highest fitting that the main vent serves.

59. INTERCONNECTION OF VENTS FROM SOIL AND WASTE FITTINGS

Where the two-pipe system is used, a pipe which ventilates a soil pipe or fitting and a pipe which ventilates a waste pipe or fitting shall not be connected to each other unless the waste fitting so ventilated is provided with a trap having a water seal not less than 65 millimetres in depth.

60. SLUKPYPE

Elke afsonderlike slukpyp moet aan die uitlaatkant van die sperder, skuins in die vloeirigting van die vuil- of vuilwaterpyp wat dit bedien, by laasgenoemde pyp aansluit by 'n punt wat minstens 75 millimeter en hoogstens 750 millimeter van die kruin van die sperder af is. Sodanige slukpyp moet afsonderlik boontoe lei sodat dit in die opelug afvoer ooreenkomstig die vereistes van subregulasie (1) van regulasie 56, of sodanige slukpyp moet met 'n gemeenskaplike slukpyp verbind wees by 'n punt minstens 150 millimeter bo die bokant van die toebehore wat sodanige slukpyp bedien.

Die gemeenskaplike slukpyp moet in die opelug afvoer ooreenkomstig die vereistes van subregulasie (1) van regulasie 56, so nie kan dit met die hoofrioollugpyp verbind wees ooreenkomstig die vereistes van regulasie 58.

61. BESKERMING VAN DREKWATERSPERDERS

Behoudens die bepalings van regulasie 62, moet die waterslot van die sperder van drekwatertoebehore in die volgende gevalle beskerm word deur middel van 'n slukpyp met sodanige afmetings en ligging as wat onderskeidelik in regulasie 55 en in subregulasie (1) van regulasie 56 voorgeskryf word, d.w.s. waar sodanige drekwatertoebehore—

(*a*) in 'n ongeventileerde vuilriool of vuilpyp of 'n kombinasie daarvan afvoer waarin daar 'n val van meer as 1·2 meter binne 'n horisontale afstand van 2·4 meter van die kruin van die sperder af is; of

(*b*) in 'n geventileerde vuilpyp of privaatvuilriool afvoer wat 'n helling van 45 grade of meer weg van die horisontale het en wat die afvoer van een of meer ander drekwatertoebehore by 'n hoër vlak, behalwe soos in regulasie 68 bepaal, ontvang; of

(*c*) behalwe in die geval van drekwatertoebehore wat by die heel boonste of verste ent van die vuilpyp of vuilriool geleë is, in 'n ongeventileerde vuilpyp of vuilriool afvoer wat die afvoer van enige ander drekwatertoebehore ontvang.

62. VENTILASIE VAN DREKWATERTOEBEHORE

Waar 'n aantal drekwatertoebehore verbind is met 'n takvuilpyp wat voorsien is van 'n rioollugpyp wat onmiddellik voor die laaste drekwatertoebehore by sodanige takvuilpyp aansluit en sodanige rioollugpyp verbind is met 'n ander rioollugpyp by 'n punt minstens 150 millimeter bo die bokant van sodanige drekwatertoebehore, kan slukpype weggelaat word.

63. BESKERMING VAN VUILWATERSPERDERS

(1) In die eenpypstelsel moet die waterslot van die sperder van elke vuilwatertoebehore deur middel van 'n slukpyp beskerm word, maar waar horisontale vuilwaterpype aan die agterkant ontlug word soos in regulasie 62 beskryf, kan die slukpype weggelaat word.

(2) In die tweepypstelsel moet die waterslot van die sperder van elke vuilwatertoebehore deur middel van 'n slukpyp of 'n „agterrioollugpyp" beskerm word, tensy 'n goedgekeurde sluksperder geïnstalleer word: Met dien verstande dat hierdie subregulasie nie van

60. ANTI-SIPHON PIPES

Every individual anti-siphon pipe shall be connected to the soil or waste pipe which it serves on the outlet side of the trap obliquely in the direction of flow of the last-mentioned pipe at a point not less than 75 millimetres or more than 750 millimetres from the crown of the trap. Such anti-siphon pipe shall be carried up independently to discharge into the open air in accordance with the requirements of Subregulation (1) of Regulation 56 or such anti-siphon pipe shall be connected to a common anti-siphon pipe at a point not less than 150 millimetres above the top of the fitting which such anti-siphon pipe serves.

The common anti-siphon pipe either shall discharge into the open air in accordance with the requirements of Subregulation (1) of Regulation 56 or it may be connected to the main vent in accordance with the requirements of Regulation 58.

61. PROTECTION OF SOIL-WATER TRAPS

Subject to the provisions of Regulation 62, the water seal of the trap of a soil-water fitting shall, in the following cases, be protected by means of an anti-siphon pipe of such dimensions and location as are prescribed in Regulation 55 and in Subregulation (1) of Regulation 56 respectively, that is to say where such soil-water fitting—

(*a*) discharges into an unventilated sewer or soil pipe or a combination thereof in which there is a fall of more than 1·2 metres within a horizontal distance of 2·4 metres from the crown of the trap; or

(*b*) discharges into a ventilated soil pipe or private sewer having an inclination from the horizontal of 45° or greater and which receives the discharge from one or more other soil-water fittings at a higher level except as provided for in Regulation 68; or

(*c*) not being the soil-water fitting situated at the uppermost or remotest end of the soil pipe or sewer, discharges into an unventilated soil pipe or sewer which receives the discharge from any other soil-water fitting.

62. VENTILATION OF SOIL-WATER FITTINGS

Where several soil-water fittings are connected to a branch soil pipe which is provided with a vent connected to such branch soil pipe immediately short of the farthest soil-water fitting on such branch, and such vent is connected to another vent at a point not less than 150 millimetres above the highest water level possible in any such soil-water fitting, anti-siphon pipes may be omitted.

63. PROTECTION OF WASTE-WATER TRAPS

(1) In the one-pipe system the water seal of the trap of every waste-water fitting shall be protected by means of an anti-siphon pipe, except that where horizontal waste pipes are back-vented as described in Regulation 62 the anti-siphon pipes may be omitted.

(2) In the two-pipe system the water seal of the trap of every waste-water fitting shall be protected by means of an anti-siphon pipe or a "back vent" unless an

toepassing is in die geval van 'n enkele bad, stortbad of opwasbak wat 'n afsonderlike afvoer na 'n rioolput het en waar die totale lengte van die vuilwaterpyp hoogstens 6 meter is nie.

64. SPERDERS IN VUILWATERTOEBEHORE

(1) Behalwe soos toegelaat in subregulasie (4) van hierdie regulasie, moet daar rég onder elke vuilwatertoebehore 'n goedgekeurde sperder met 'n verwyderbare skoonmaakprop wat onderkant die waterslot geleë is, aangebring word.

(2) Die nominale binnemaat van sodanige sperder moet minstens 32 millimeter in die geval van 'n handewasbak en 40 millimeter in die geval van 'n opwasbak of bad wees.

(3) Die diepte van die waterslot in 'n sperder wat vuilwatertoebehore bedien mag in geen geval 100 millimeter oorskry nie en moet minstens 40 millimeter wees in 'n tweepypstelsel en minstens 65 millimeter in 'n eenpypstelsel.

(4) Nieteenstaande die bepalings van subregulasie (1)—

(*a*) kan 'n bad of handewasbak of stortbad sonder die tussenvoeging van 'n sperder afvoer in 'n oop kanaal wat 'n halfronde dwarsdeursnee en 'n diameter van minstens 100 millimeter het, wat van geglasuurde keramiekmateriaal of 'n ander goedgekeurde materiaal gemaak is, wat oor die hele lengte daarvan toeganklik is vir skoonmaakdoeleindes, en wat reg onder die afvoerpunt of -punte geplaas is. Sodanige oop kanaal moet in 'n sperder afvoer wat in staat is om die afvoer te ontvang en wat 'n korrosiebestande metaalrooster het.

(*b*) kan 'n bad of handewasbak of stortbad wat in 'n kompartement geïnstalleer is wat 'n urinaal bevat, sonder die tussenvoeging van 'n sperder afvoer in die urinaalkanaal indien die uitlaat vanaf sodanige bad, handewasbak of stortbad bokant die hoogste gedeelte van die urinaalkanaal is.

65. DREKWATERSPERDERS

Behalwe soos vir urinale in regulasie 31 bepaal, moet elke drekwatertoebehore voorsien word van 'n goedgekeurde sperder wat in een stuk met die toebehore gebou is, maar sodanige sperder kan, met die goedkeuring van die Plaaslike Bestuur, aan die toebehore verbind word indien die aansluiting bokant die waterlyn van die sperder is en die las stewig en waterdig is.

66. SPERDERS IN RIOOLPUTTE

Rioolputte moet van 'n waterslot van minstens 60 millimeter voorsien wees.

67. MINIMUM VAL NA TOEBEHORE

Waar 'n vuilwaterpyp, vuilpyp of privaatvuilriool twee of meer sanitêre toebehore bedien, moet daar 'n val van minstens 150 millimeter vanaf elke sodanige toebehore wees, soos gemeet van die bodem van die sperderuitlaat tot by die bodem van sodanige vuilwaterpyp, vuilpyp of privaatvuilriool.

approved re-sealing trap is installed: Provided that this subregulation shall not apply in the case of a single bath, shower, or sink, having an independent discharge to a gully, and where the total length of the waste pipe does not exceed 6 metres.

64. TRAPS IN WASTE-WATER FITTINGS

(1) Except as permitted in Subregulation (4) of this regulation, there shall be provided immediately beneath every waste-water fitting an approved trap having a removable cleaning plug situated below the water seal.

(2) The nominal bore of such a trap shall be not less than 32 millimetres in the case of a wash-hand basin and 40 millimetres in the case of a sink or bath.

(3) The depth of the water seal in a trap serving a waste-water fitting shall in no case exceed 100 millimetres and shall be not less than 40 millimetres in a two-pipe system and not less than 65 millimetres in a one-pipe system.

(4) Notwithstanding the provisions of Subregulation (1)—

(*a*) a bath or wash-hand basin or shower may discharge without the interposition of a trap into an open channel semi-circular in cross-section having a diameter of at least 100 millimetres made of glazed ceramic material or other approved material, accessible for cleaning throughout its length and placed immediately beneath the point or points of discharge. Such open channel shall discharge into a trap capable of receiving the discharge and having a corrosion-resistant metal grating.

(*b*) a bath or wash-hand basin or shower installed in a compartment containing a urinal may discharge without the interposition of a trap into the urinal channel if the outlet from any such bath, wash-hand basin, or shower is above the highest part of the urinal channel.

65. SOIL-WATER TRAPS

Except as provided for urinals in Regulation 31, every soil-water fitting shall be provided with an approved trap, built integrally with the fitting, but such trap may, with the approval of the Local Authority, be joined to the fitting if the junction is above the water line of the trap and the joint is firm and watertight.

66. TRAPS IN GULLIES

Gullies shall be provided with a water seal of not less than 60 millimetres.

67. MINIMUM DROP TO FITTINGS

Where a waste pipe, soil pipe, or private sewer serves two or more sanitary fittings, there shall be a drop of at least 150 millimetres from every such fitting measured from the invert of the trap outlet to the invert of such waste pipe, soil pipe, or private sewer.

68. WEGLATING VAN SLUKPYPE OF „AGTERRIOOLLUGPYPE" (ENKELSTAMPYPSTELSELS)

Slukpype of „agterrioollugpype" kan in een- sowel as tweepypstelsels weggelaat word, mits—

(a) daar slegs een sanitêre toebehore is wat in elke horisontale takpyp afvoer, en

(b) die lengte van die horisontale takpyp nie 6 meter oorskry nie, en

(c) 75-millimeter-diepslotsperders of goedgekeurde slukSperders gebruik word, en

(d) geen horisontale vuilwaterpyp lynreg teenoor en op dieselfde vlak as of binne 200 millimeter onderkant die aansluiting van 'n takvuilpyp verbind is nie,

en in sodanige gevalle word die volgende beperkings op die maksimum vloeitempo in die vertikale pyp, ooreenkomstig regulasie 49 en 50 bereken, geplaas:

òf

(i) die tempo mag op geen punt die tempo oorskry wat in kolom 2 van tabel VIII aangegee word vir die ooreenstemmende grootte vertikale pyp in kolom 1 nie,

TABEL VIII

1	2
Diameter van pyp, millimeter	Maksimum vloeitempo, a.e.
75	14
100	70
150	350

òf

(ii) die tempo in 'n vertikale pyp met 'n diameter van 100 millimeter kan 70 a.e. oorskry maar mag in geen geval 280 a.e. oorskry nie; in sodanige geval moet 'n deurlopende rioollugpyp met 'n diameter van 50 millimeter aangebring en op elke vloervlak met die vertikale pyp verbind word, òf direk òf met die sluktuit langs 'n drukwatertoebehore met 'n diameter van 100 millimeter.

KONSTRUKSIE EN LÊ VAN PRIVAAT- EN GEKOMBINEERDE PRIVAATVUILRIOLE

69. GROOTTE, VAL, LYN EN VERANDERINGS VAN RIGTING

(1) Alle vuilriole moet groot genoeg wees om die afvoer daarin te neem, soos bereken ooreenkomstig die toepaslike regulasies wat in hierdie hoofstuk vervat is, en moet 'n minimum binnediameter van 100 millimeter hê.

(2) Vuilriole met 'n diameter van 100 millimeter en 150 millimeter moet met 'n gradiënt van hoogstens 1 op 10 en minstens 1 op 60 gelê word. Die Ingenieur kan volgens eie oordeel in besondere omstandighede toelaat dat die maksimum gradiënt vergroot word of dat die minimum gradiënt verklein word met inagneming van beskikbare valle, tipes pype en lasse wat gebruik word, en die vloei wat in die pype verwag word.

68. OMISSION OF ANTI-SIPHON OR "BACK VENT" PIPES (SINGLE STACK SYSTEMS)

Anti-siphon or "back vent" pipes may be omitted in both one- and two-pipe systems provided that—

(a) there is only one sanitary fitting discharging into each horizontal branch pipe, and

(b) the length of the horizontal branch pipe does not exceed 6 metres, and

(c) 75 millimetre deep-seal traps or approved resealing traps are used, and

(d) no horizontal waste pipe is connected diametrically opposite and on a level with, or within, 200 millimetres below the connection of a soil branch,

and in such cases the following limitations are placed on the maximum rate of flow in the vertical pipe, calculated in accordance with Regulations 49 and 50: either:

(i) the rate shall not exceed at any point the rate given in Column 2 of Table VIII for the corresponding size of vertical pipe indicated in Column 1,

TABLE VIII

1	2
Diameter of pipe, millimetres	Maximum rate of flow, d.u.
75	14
100	70
150	350

or

(ii) the rate in a 100 millimetre diameter vertical pipe may exceed 70 d.u. but shall in no instance exceed 280 d.u.: in such cases a continuous 50 millimetre diameter vent pipe is to be provided and connected to the vertical pipe at each floor level, either directly or to the anti-siphon horn adjacent to a 100 millimetre soil-water fitting.

CONSTRUCTION AND LAYING OF PRIVATE AND COMBINED PRIVATE SEWERS

69. SIZE, FALL, LINE, AND CHANGES IN DIRECTION

(1) All sewers shall be of a size capable of taking the discharge into them, calculated in accordance with the relevant regulations contained in this chapter, with a minimum internal diameter of 100 millimetres.

(2) Sewers of 100 millimetre and 150 millimetre diameter shall be laid with gradients lying between a maximum of 1 in 10 and a minimum of 1 in 60. The Engineer may, in his discretion, allow the maximum gradient to be increased or the minimum gradient to be decreased in particular circumstances, taking into account available falls, type of pipes and joints used and the flow anticipated in the pipes.

(3) Alle vuilriole moet suiwer in lyn en met eenvormige gradiënte gelê word en moet so ondersteun of geanker word dat hierdie gradiënte behou word. Alle sok-en-tap-vuilrioolpype moet so gelê word dat hul tapente in die vloeirigting wys.

(4) Alle vuilriole moet so gelê word dat die romp van die pyp volledig ondersteun word en 'n holte by die sok gelaat word vir die maak van die las.

(5) Die terugvulling van alle vuilriole moet uitgevoer word deur versigtige plasing en verdigting van sand of uitgesoekte fyn korrelsand egalig rondom die pyp aan beide kante en bo-op die pyp tot 'n hoogte van 150 millimeter bokant die kruin van die pyp, en daarna terugvulling en verdigting van die res van die sloot tot by die finale hoogte.

(6) Veranderings in die horisontale rigting van vuilriole wat van erdewerk gemaak is, moet met buigstukke gemaak word wat aan SABS 559 voldoen. Indien buigstukke van enige ander goedgekeurde materiaal gebruik word, moet die strale van hierdie buigstukke minstens gelyk wees aan dié wat vir buigstukke van erdewerk gespesifiseer is.

Waar die verandering van vloeirigting nie 90° oorskry nie, moet die straal van die volledige buigstuk minstens drie keer die binnediameter van die pype wees.

Waar die verandering van vloeirigting meer as 90° is, moet 'n reeks buigstukke geïnstalleer word wat elkeen aan die voorgaande vereistes van hierdie regulasie moet voldoen; of die verandering van vloeirigting kan in 'n mangat met kanaalbuigstukke wat aan die vereistes van SABS 559 voldoen, gemaak word. Indien kanaalbuigstukke van enige ander goedgekeurde materiaal as erdewerk gebruik word, moet hierdie kanaalbuigstukke strale hê wat nie minder is as dié wat vir kanaalbuigstukke van erdewerk gespesifiseer word nie.

(7) Enige verandering van meer as 5° in die vertikale rigting van 'n erdepypvuilriool moet met haakse of daalpypaansluiters of -buigstukke wat aan SABS 559 voldoen, gemaak word. Indien aansluiters of buigstukke van enige ander goedgekeurde materiaal gebruik word, moet hierdie aansluiters of buigstukke aan die toepaslike afmetingsvereistes van SABS 559 voldoen.

70. AANSLUITINGS BY VUILRIOLE

Elke takvuilriool moet by 'n ander vuilriool aansluit in die vloeirigting van sodanige vuilriool, onder 'n ingeslote hoek van 45°, en so na as moontlik aan die bodem daarvan.

Alle aansluitings van erdewerk moet gemaak word deur middel van gewone of kanaalaansluiters wat aan die vereistes van SABS 559 voldoen.

71. LASSE IN VUILRIOLE

(1) Alle vuilrioolpype moet gesentreer en konsentries verbind word met hul bodems suiwer in lyn.

(2) Indien vuilriole van gietystertpype met sokke gemaak word, moet die las tot 'n diepte van minstens die helfte van die sokdiepte bevestig word met gesmelte lood wat met een slag ingegiet is of met loodwol wat behoorlik gekalfater is.

(3) Indien vuilriole van gietysterpype met flense gemaak word, moet die lasse stewig aan mekaar vasgebout word met invoegingsmateriaal, deur die Ingenieur goedgekeur, tussen die vlakke van die flense geplaas.

(3) All sewers shall be laid in true alignment and at uniform gradients, and shall be so supported or so anchored as to maintain these gradients. All spigot and socket sewer pipes shall be laid with the spigot ends pointing in the direction of the flow.

(4) All sewers shall be laid so that the barrel of the pipe is fully supported and a depression is left at the socket to permit the joints to be made.

(5) The backfilling to all sewers shall be carried out by carefully placing and consolidating sand or selected fine granulated soil evenly around the pipe on both sides, and on top of the pipe to a height of 150 millimetres above the crown of the pipe, and thereafter backfilling and consolidating the remainder of the trench up to the final level.

(6) Changes in the horizontal direction of sewers constructed of earthenware shall be made with bends complying with SABS 559. Should bends of any other approved material be used, these bends shall have radii not less than those specified for earthenware bends.

When the change of direction of flow does not exceed 90°, the radius of the complete bend shall be not less than three times the internal diameter of the pipes.

When the change of direction of flow is more than 90°, a series of bends shall be installed, each of which shall comply with the foregoing requirements of this regulation; or the change of direction of flow may be made within a manhole with channel bends complying with the requirements of SABS 559. Should channel bends of any approved material other than earthenware be used, these channel bends shall have radii not less than those specified for earthenware channel bends.

(7) Any change in the vertical direction exceeding 5° in an earthenware sewer shall be made with square or ramp junctions or bends complying with SABS 559. Should junctions or bends of any other approved material be used, these junctions or bends shall comply with the relevant requirements for dimensions of SABS 559.

70. JUNCTIONS TO SEWERS

Every branch sewer shall join another sewer in the direction of the flow of such sewer at an included angle of 45° and as near as practicable to the invert thereof.

All earthenware junctions shall be made by means of ordinary or channel junctions complying with the requirements of SABS 559.

71. JOINTS IN SEWERS

(1) All sewer pipes shall be centred and joined concentrically with the invert on true line.

(2) If sewers are constructed of cast iron socketed pipes, the joint shall be secured to a depth of at least half the socket depth with molten lead run in one pouring or with lead wool, properly caulked.

(3) If sewers are constructed of cast iron flanged pipes, the joints shall be securely bolted together with insertion material approved by the Engineer placed between the faces of the flanges.

(4) Indien vuilriole van geglasuurde erdepype of ander nie-metaalpype gemaak word, moet die lasse volgens die vereistes van SABS 058 „Verbinding van straatriole en afvoerleidings" gemaak word.

72. VUILRIOLE IN SLEGTE OF OPGEVULDE GROND

Alle vuilriole in slegte of opgevulde grond of grond met 'n ongelyke dravermoë moet op so 'n manier gelê word dat dit die Ingenieur, wat die aard van die grond en die eienskappe van die pype en lasse wat gebruik word, in ag moet neem, in alle opsigte tevrede stel.

73. TOEGANG TOT VUILRIOOL EN OPENBARE VUILRIOOL

'n Mangat of ander goedgekeurde toegangswyse moet op die perseel waarop 'n vuilriool aangelê word, gebou word en moet hoogstens 1·2 meter van die grens van sodanige perseel geleë wees om maklike toegang tot sodanige vuilriool en die openbare vuilriool te verleen.

74. VUILRIOLE BINNE OF ONDER GEBOUE[6]

(1) 'n Vuilriool of deel daarvan kan in of deur of onderdeur 'n gebou gelê word of gaan, na gelang van die geval, tensy die Plaaslike Bestuur anders besluit op grond van oorwegings soos gesondheid en instandhouding of ander sake wat op die besondere geval betrekking het.

(2) 'n Vuilriool of deel daarvan moet, waar dit onder 'n gebou is, sonder verandering van rigting of gradiënt en sonder 'n wyse van toegang daartoe wees, behalwe soos in regulasie 86 bepaal, en moet op 'n betonbed, minstens 100 millimeter dik, met 'n samestelling van hoogstens ses dele growwe aggregaat op drie dele fyn aggregaat op een deel portlandsement gelê wees en moet ook, indien dit van geglasuurde erdewerk gemaak is, met soortgelyke beton met 'n minimumdikte van 100 millimeter by alle punte gemeet van die buite-oppervlak van die pyp af, omhul wees.

(3) Waar 'n vuilriool of deel daarvan in 'n blootgestelde posisie binne 'n gebou gelê word, moet dit van gietystervpype gemaak word en moet dit op afstande van hoogstens 2 meter langs die loop daarvan behoorlik gesteun word.

(4) Geen deel van die gewig van 'n muur of fondament mag op 'n vuilriool wat daardeur of onderdeur dit gaan, druk nie.

75. DIEPTE VAN BEDEKKING OP EN BESKERMING VAN VUILRIOLE

Alle vuilriole uitgesonderd gietystervuilriole, met 'n skoon bedekking van minder as 300 millimeter oor die sok van die pyp moet voldoende beskerm word deur 'n betonomhulsel minstens 100 millimeter dik met 'n samestelling wat nie swakker as 50 kilogram sement op 100 kubieke desimeter fyn aggregaat op 200 kubieke desimeter growwe aggregaat (1:3:6-mengsel) is nie. Waar vuilrioolpype na die mening van die Ingenieur deur vibrasie of buitedruk beskadig kan word, moet hulle ook 'n soortgelyke betonomhulsel kry.

[6] Die aandag van Plaaslike Besture in die Kaapprovinsie word op artikel 180 (1) (a) van Ordonnansie 19 van 1951 gevestig.

(4) If sewers are constructed of glazed earthenware pipes or other non-metallic pipes, the joints shall be constructed in accordance with the requirements of SABS 058 "Sewer and drain jointing".

72. SEWERS ON BAD OR MADE-UP GROUND

All sewers on bad or made-up ground or ground producing unequal bearing shall be laid in a manner in all respects satisfactory to the Engineer who shall take into consideration the nature of the ground and the properties of the pipes and joints being used.

73. ACCESS TO SEWER AND PUBLIC SEWER

A manhole or other approved means of access shall be constructed on the premises upon which a sewer is laid and shall be located not more than 1·2 metres from the boundary of such premises in order to afford ready access to such sewer and to the public sewer.

74. SEWERS WITHIN OR UNDER BUILDINGS[6]

(1) A sewer or part thereof may be laid or may pass as the case may be within or under or through a building unless the Local Authority shall decide otherwise having regard to considerations of health and maintenance or other matters relevant to the particular case.

(2) A sewer or part thereof shall where it is under a building be without change of direction or gradient and without means of access thereto except as provided for in Regulation 86 and shall be laid on a bed of concrete at least 100 millimetres thick having a composition of not more than six parts of coarse aggregate to three parts of fine aggregate to one part of Portland cement and, if it is made of glazed earthenware, shall also be encased in similar concrete having a minimum thickness at all points of 100 millimetres measured from the external surface of the pipe.

(3) Where a sewer or part thereof is laid in an exposed position within a building, it shall be constructed of cast iron pipes, and shall be adequately supported at intervals not exceeding 2 metres along its course.

(4) No part of the weight of a wall or foundation shall bear upon a sewer which passes under or through it.

75. DEPTH OF COVER TO AND PROTECTION OF SEWERS

All sewers, other than cast iron sewers, having less than 300 millimetres clear cover over the socket of the pipe shall be adequately protected by encasing in concrete not less than 100 millimetres thick having a composition not inferior to 50 kilograms of cement to 100 cubic decimetres of fine aggregate to 200 cubic decimetres of coarse aggregate (1:3:6 mix). Where in the opinion of the Engineer sewer pipes may be damaged by vibration or external pressure, they shall also be encased in similar concrete.

[6] The attention of local authorities in the Cape Province is invited to Section 180 (1) (a) of Ordinance 19 of 1951.

LIGGING VAN RIOOLPUTTE, VETVANGERS EN STALRIOOLPUTTE

76. INLATE NA VUILRIOLE BINNE GEBOU

(1) Behoudens die bepalings van subregulasie (3) van hierdie regulasie, moet alle rioolputte, vetvangers en stalrioolputte in die opelug geleë wees, of, indien hulle onder 'n dak is, moet hulle op 'n plek wees wat permanent aan die buitelug blootgestel is en moet hulle te alle tye maklik bygekom kan word vir skoonmaak- of instandhoudingsdoeleindes.

(2) Elke vloer in 'n fabriek, stal of ander perseel waarop vloeistof voortdurend of met tussenpose afgevoer word, moet 'n harde, gladde, duursame oppervlak hê en moet met 'n helling gebou en na 'n rioolput gedreineer word.

(3) Ondanks die bepalings van subregulasie (1), kan 'n rioolput in subregulasie (2) van hierdie regulasie genoem, binne 'n gebou geleë wees mits die pyp wat die afvoer vanaf sodanige rioolput ontvang, self in 'n ander rioolput wat in die opelug geleë is, afvoer.

77. KONSTRUKSIE EN GROOTTE VAN MANGATE

Die mure van 'n mangat in 'n vuilriool moet van steenwerk, minstens 215 millimeter dik, saamgestel uit stene wat aan die vereistes van SABS 227 „Messeleenhede van gebrande klei" voldoen, gevoeg met sementmortel met 'n samestelling wat nie swakker as drie dele sand op een deel sement per volume is nie, gebou word of moet, met die skriftelike toestemming van die Ingenieur, van beton gebou word. Die basis van 'n mangat moet minstens 150 millimeter dik wees, moet van beton met 'n samestelling wat nie swakker as 50 kilogram sement op 65 kubieke desimeter fyn aggregaat op 130 kubieke desimeter growwe aggregaat (1 : 2 : 4-mengsel) is nie, gebou word.

Die bodem en kanaal moet behoorlik met soutgeglasuurde erdewerkkanaalstukke gevorm word en die kante van die kanaal moet vertikaal tot by die hoogte van die pypsoffiet verhoog word en daarvandaan trapsgewys met 'n val van 1 op 6 afloop en met 'n staaltroffel gladgestryk word. Enkele of dubbele gietysterseëldeksels wat aan die vereistes van SABS 558 „Grondkassies en mangatdeksels met rame van gietyster" voldoen, moet gebruik word. Swaardienstipe gietysterdeksels wat aan voornoemde spesifikasie voldoen, moet gebruik word op plekke wat 'n swaarvoertuigverkeer dra. Die hol gedeeltes van mangatdekselrame moet met wrywingwerende ghries gevul word en die deksels moet so in die holtes vasgesit word dat hulle gasdigte bedekkings vorm. Die minimum binne-afmetings van mangate moet 600 millimeter lank by 450 millimeter breed vir 'n diepte van tot 1 meter en 900 millimeter lank by 600 millimeter breed vir 'n diepte van meer as 1 meter wees: Met dien verstande dat die Ingenieur die gebruik van ronde mangate van dieselfde grootte kan toelaat en groter mangate as dié wat in hierdie regulasie gespesifiseer word, kan vereis waar toestande sodanige groter mangate nodig maak.

Waar die Ingenieur dit vereis, moet goedgekeurde metaalsporte in die muur van elke mangat wat dieper as 1·25 meter is, gebou word om toegang daartoe te verleen.

LOCATION OF GULLIES, GREASE TRAPS, AND STABLE TRAPS

76. INLETS TO SEWERS INSIDE BUILDINGS

(1) Subject to the provisions of Subregulation (3) of this regulation, all gullies, grease traps, and stable traps shall be located in the open air or if beneath a roof then in a place permanently exposed to the open air and shall be at all times readily accessible for purposes of cleaning or maintenance.

(2) Every floor in a factory, stable, or other premises upon which liquid is discharged continuously or intermittently shall have a hard, smooth, durable surface and shall be graded and drained to a gully.

(3) Notwithstanding the provisions of Subregulation (1) a gully referred to in Subregulation (2) of this regulation may be located within a building so long as the pipe receiving the discharges from such gully itself discharges into another gully situated in the open air.

77. CONSTRUCTION AND SIZE OF MANHOLES

The walls of every manhole installed on a sewer shall be constructed of brickwork not less than 215 millimetres thick, composed of bricks, complying with the requirements of SABS 227 "Burnt clay masonry units", set in cement mortar having a composition not inferior to three parts of sand to one part of cement by volume or, with the written consent of the Engineer, shall be of concrete construction. The base of every manhole shall be not less than 150 millimetres thick, shall be constructed of concrete having a composition not inferior to 50 kilograms of cement to 65 cubic decimetres of fine aggregate to 130 cubic decimetres of coarse aggregate (1:2:4 mix). The invert and channel shall be properly formed with salt-glazed earthenware channels, the sides of the channel being raised up vertically to the level of the pipe soffit and benched therefrom at a slope of 1 in 6, steel-trowelled to a smooth finish. Single or double seal covers of cast iron complying with the requirements of SABS 558 "Cast iron surface boxes and manhole covers with frames" shall be used. Heavy duty types of cast iron covers complying with the specification aforesaid shall be used in areas subject to heavy vehicular traffic. The recesses of manhole cover frames shall be filled with anti-friction grease and the covers set in the recesses so as to form gastight coverings. The minimum inside dimensions of manholes shall be 600 millimetres in length by 450 millimetres in width up to 1 metre deep, and 900 millimetres in length by 600 millimetres in width over 1 metre deep: Provided that the Engineer may permit the use of circular manholes of equivalent size and may demand larger manholes than those specified in this regulation where conditions render such larger manholes necessary.

Where required by the Engineer, approved metal rungs for the purposes of access shall be built into the wall of every manhole exceeding 1·25 metres in depth.

KONSTRUKSIE EN BEVESTIGING VAN PYPE

78. VUILWATER MOET IN RIOOLPUT MET SPERDER AFGEVOER WORD

Behalwe in die geval van 'n eenpypstelsel, moet alle vuilwater afgevoer word in 'n rioolput met sperder wat met 'n vuilriool verbind is, of in 'n rioolput met sperder bokant die waterstand in die sperder, of in 'n kanaal wat na sodanige rioolput lei. Geen vuilwaterpyp mag in 'n geut, geuttregter of pyp wat vir die deurvoer van reënwater aangebring is of gebruik word of in 'n kanaal wat vir die besproeiing van 'n tuin aangebring is, afvoer nie, of daarmee verbind word nie.

79. INLATE NA VUILRIOLE MOET AFGESLUIT WORD

Die rioolput met sperder wat volgens die bepalings van regulasie 78 vereis word, moet so gevorm en geïnstalleer word dat 'n waterslot van 60 millimeter daarin behou word en geen ander sperder mag tussen sodanige rioolput met sperder en die openbare vuilriool geplaas word nie.

80. VETVANGERS

Uitgesonderd in woonhuise met minder as nege vertrekke, moet vetvangers aangebring word om die afvoer van elke opwasplek of kombuisopwasbak te neem, en indien hulle van erdewerk gemaak is, moet hulle aan die bepalings van regulasie 38 voldoen, maar in elk geval moet vetvangers so na as moontlik aan die toebehore waarvan hulle die afvoer ontvang, geplaas word en moet hulle minstens twee keer die inhoudsvermoë van sodanige toebehore hê.

81. GEKOMDE RIOOLPUTTE MET SPERDERS

(1) By wonings met minder as nege vertrekke word 'n vetvanger nie vereis nie, maar moet 'n gekomde rioolput met sperder aangebring word om die afvoer van elke opwasplek of kombuisopwasbak te neem. Sodanige rioolput moet geplaas word op 'n betonbasis, minstens 150 millimeter dik, met 'n samestelling wat nie swakker as 50 kilogram sement op 65 kubieke desimeter fyn aggregaat op 130 kubieke desimeter growwe aggregaat (1:2:4-mengsel) is nie. Alle sodanige rioolputte moet met soortgelyke beton tot 'n dikte van minstens 100 millimeter omhul word en 'n kom van geskikte grootte met 'n borand moet so aangebring word dat dit minstens 75 millimeter bokant grondhoogte gelig is en moet glad afgewerk word en 'n val van minstens 75 millimeter na die middel van die rioolput hê.

(2) Behalwe waar die Plaaslike Bestuur dit toelaat, mag die maksimum afstand van die grondhoogte tot by die bokant van die waterslot in alle rioolputte nie 450 millimeter oorskry nie.

82. SLIKSPERDERS EN VANGBAKKE

Wanneer sliksperders of vangbakke aangebring word, moet hulle so ontwerp word dat slik of enige ander materiaal wat die vuilriool kan verstop, doeltreffend gekeer word en moet hulle so geplaas word dat hulle maklik bygekom kan word vir skoonmaakdoeleindes.

CONSTRUCTION AND FIXING OF PIPES

78. WASTE WATER TO DISCHARGE INTO TRAPPED GULLY

Except in the case of a one-pipe system, all waste water shall discharge into a trapped gully connected to a sewer, or into a trapped gully above the level of the water in the trap, or into a channel leading to such gully. No waste pipe shall discharge into or connect with a gutter, hopper head, or pipe provided or used for the conveyance of rain water or into a channel provided for the irrigation of a garden.

79. INLETS TO SEWERS TO BE TRAPPED

The trapped gully required under the provisions of Regulation 78 shall be so formed and installed as to maintain a water seal of 60 millimetres and no other trap shall be placed between such trapped gully and the public sewer.

80. GREASE TRAPS

Except in dwelling houses containing less than nine rooms, grease traps shall be fitted to take the discharge from every scullery or kitchen sink, and if they are constructed of earthenware shall comply with the provisions of Regulation 38, but in any case, grease traps shall be placed as near as possible to the fitting from which they receive the discharge and shall have at least twice the capacity of such fitting.

81. TRAPPED DISH GULLIES

(1) In dwellings containing less than nine rooms, a grease trap is not required, but a trapped dished gully shall be provided to take the discharge from every scullery or kitchen sink. Such gully shall be set on a base of concrete not less than 150 millimetres thick having a composition not inferior to 50 kilograms of cement to 65 cubic decimetres of fine aggregate to 130 cubic decimetres of coarse aggregate (1:2:4 mix). All such gullies shall be encased in similar concrete to a thickness of not less than 100 millimetres, and a suitably sized dish shall be provided surmounted with a kerb, which dish shall be raised at least 75 millimetres above ground level and finished off smooth and shall have a fall of at least 75 millimetres to the centre of the gully.

(2) Except where permitted by the Local Authority, the maximum distance from the ground level to the top of the water seal in all gullies shall not exceed 450 millimetres.

82. SILT TRAPS AND CATCH BASINS

Silt traps or catch basins when installed shall be designed so as to retain effectively the silt or any other material which may cause clogging of the sewer and shall be placed so as to be readily accessible for clearing.

83. BEHOUD VAN WATERSLOT IN SPERDERS

'n Waterkraan moet oor elke rioolput met sperder wat met 'n vuilriool verbind is en wat nie die afvoer van vuilwatertoebehore ontvang nie, geplaas word.

84. TUSSENSPERDERS IN VUILRIOLE

Geen sperder, uitgesonderd die sperder wat nodig is om drekwatertoebehore regstreeks te bedien, mag tussen sodanige toebehore en 'n vuilriool waarmee dit verbind is, toegelaat word nie.

85(a) TOEGANKLIKHEID

EEN MANGAT soos beskrywe in klousule 77 MOET GEBOU WORD vir toegang in die rioolpyp, nie meer as 1,2 meters vanaf die erfgrens nie, in 'n posisie so na as moontlik aan die aansluitingspunt van die huisrioolnetwerk en die aansluiting soos deur die Munisipaliteit voorsien en soos skriftelik goedgekeur deur die Ingenieur of sy verteenwoordiger. Geen ander vorm van toegang sal toegelaat word nie.

85(b) TOEGANKLIKHEID, ALGEMEEN

Toegangsmiddels soos steekoë, mangate of inspeksiekamers vir skoonmaak- en inspeksiedoeleindes moet aangebring word by die voet van elke vuilwater- of vuilstampyp, by elke rigtingsverandering van vuilriole, vuilwaterpype en vuilpype, by alle aansluitings van vuilriole, vuilwaterpype, en vuilpype, en op sodanige ander plekke wat alle vuilriole en alle vuilwater- en vuilpype en sanitêre toebehore toeganklik sal maak.

86 TOEGANG TOT VUILRIOLE

Toegangsmiddels moet in vuilriole aangebring word op afstande van hoogstens 24 meter tussen elke twee sodanige toegangsmiddels. Steekoë vir vuilriole moet 'n minimumdiameter van 100 millimeter hê. Steekoë by vuilriole wat onder geplaveide oppervlakke deurgaan, moet na die oppervlak gebring word en moet met behoorlik gemerkte, verwyderbare plaveiblokke of gietysterdeksels, minstens 300 millimeter in die vierkant bedek word. Wanneer steekoë skuins takke het, moet laasgenoemde in die vloerrigting by die vuilriool aansluit en moet hulle 'n hoek van hoogstens 35 grade met die horisontale vorm, tensy die Ingenieur skriftelik toestemming vir 'n steiler hoek gee. Sodanige skuins takke moet dieselfde diameter hê as die vuilriool wat hulle bedien. Steekoë en mangate moet gas- en waterdig wees en moet voorsien word van identifiseerbare deksels op die aanliggende grondhoogte, maar waar 'n mangat of steekoog binne 'n gebou toegelaat word moet dit van 'n dubbelverseëlde gas- en waterdigte deksel voorsien word wat op die aanliggende vloerhoogte vasgeskroef of vasgebout word. Steekoë met skuins takke moet met 'n toegangsdeksel verseël word wat ingelaat is en vasgeskroef of vasgebout word.

83. SEAL PRESERVATION OF TRAPS

A water tap shall be placed over every trapped gully which is connected to a sewer and which does not receive the discharge from a waste-water fitting.

84. INTERMEDIATE TRAPS IN SEWERS

No trap other than the trap required to serve a soil-water fitting directly shall be permitted between such fitting and any sewer with which it is connected.

85(a) ACCESS

ONE MANHOLE as described in clause 77 MUST BE CONSTRUCTED as access to the sewer pipe at a distance of not more than 1,2 metres away from the erf boundary in a position as close as possible to the connection point between the house drainage reticulation and the connection provided by the Municipality, and as approved in writing by the Engineer or his representative. No other form of access will be permitted here.

85(b) ACCESS GENERALLY

Means of access such as access eyes, manholes, or inspection chambers for cleaning and inspection shall be provided at the foot of each waste or soil stack, at each change of direction or gradient of sewers, waste pipes, and soil pipes, at every junction of sewers, waste pipes, and soil pipes, and in such other positions as shall make all sewers and all waste and soil pipes and sanitary fittings accessible.

86 ACCESS TO SEWERS

Means of access shall be provided in sewers at distances between every such means of access not exceeding 24 metres. Access eyes for sewers shall have a minimum diameter of 100 millimetres. Access eyes on sewers passing under paved areas shall be brought to the surface and shall be covered with suitably marked movable paving blocks or cast iron covers at least 300 millimetres square. Where access eyes have raking arms, the latter shall join the sewer in die direction of flow and shall be at an angle of not more than 35 degrees from the horizontal unless the Engineer approves in writing of a steeper angle. Such raking arms shall have the same diameter as that of the sewer they serve. Access eyes and manholes shall be gas- and water-tight and shall be fitted with identifiable covers at adjoining ground level, but where a manhole or access eye is permitted within a building it shall be fitted with a screwed or bolted double-sealed gas- and water-tight cover at adjoining floor level. Access eyes having raking arms shall be sealed with an access cover, bedded and screwed or bolted.

87. TOEGANG TOT DAALPYPE OF VALPYPE

Elke daalpyp of valpyp wat langer as 750 millimeter is, moet van 'n steekoog of ander toegangsmiddel by die bo-ent daarvan voorsien wees.

88. TOEGANG TOT VERTAKKINGS VAN VUILRIOLE

Elke tak of deel van 'n vuilriool wat langer as 3 meter is, moet van 'n steekoog of ander toegangsmiddel by die bo-ent daarvan voorsien wees.

DIVERSE

89. STORMWATER MAG NIE IN VUILRIOLE EN SEPTIESE TENKS INLOOP NIE

(1) Geen persoon mag fonteinwater, ondergrondse water, oppervlakwater of stormwater in 'n vuilriool laat afvoer of inloop of toelaat dat dit daarin afgevoer word of inloop nie, behalwe met die skriftelike toestemming of volgens aanwysing van die Ingenieur. Sodanige toestemming of aanwysing is onderworpe aan die bepalings, onder andere, dat sodanige fonteinwater, ondergrondse water, oppervlakwater of stormwater in 'n rioolput met sperder afgevoer moet word bokant die watervlak van die sperder. In geen geval mag water van voornoemde aard in 'n septiese tenk of soortgelyke werke afgevoer word of toegelaat word om daarin te loop nie.

(2) Enigeen wat die bepalings van hierdie regulasie oortree, begaan 'n misdryf.

90. RIOOLVUIL MAG NIE IN RIOLE OF STORMWATERSLOTE INLOOP NIE

(1) Geen persoon mag 'n vuilriool in 'n privaat- of openbare riool of oop stormwatersloot laat afvoer of daarmee laat verbind of toelaat dat dit daarin afvoer of daarmee verbind word nie.

(2) Enigeen wat die bepalings van hierdie regulasie oortree, begaan 'n misdryf.

91. AFVOER UIT SWEMBADDENS

(1) Geen water mag regstreeks of onregstreeks uit 'n swembad in 'n vuilriool afgevoer word tensy skriftelike toestemming daarvoor eers van die Ingenieur verkry is nie.

(2) Sodanige skriftelike toestemming is onderworpe aan sodanige voorwaardes as wat die Ingenieur mag bepaal, met inbegrip veral van 'n voorwaarde dat die toestemming te eniger tyd ingetrek kan word nadat die Ingenieur een week skriftelike kennis van sodanige intrekking gegee het.

(3) Geen water uit 'n swembad mag sonder dat die skriftelike toestemming van die Ingenieur vooraf verkry is, regstreeks of onregstreeks in 'n openbare riool afgevoer word nie.

(4) Enigeen wat die bepalings van subregulasie (1) en (3) van hierdie regulasie oortree, begaan 'n misdryf.

92. DIE STEUN VAN PYPE EN TOEBEHORE

Lushangers kan vir alle pype met 'n nominale binnemaat van tot 50 millimeter gebruik word; ringhangers moet vir alle groter pype gebruik word. Sodanige hangers moet van korrosiebestande metaal met 'n swaar

87. ACCESS TO RAMPS OR BACK-DROPS

Every ramp or back-drop exceeding 750 millimetres in length shall be provided with an access eye or other means of access at its head.

88. ACCESS TO BRANCH SEWERS

Every branch or part of a sewer exceeding 3 metres in length shall be provided with an access eye or other means of access at its top end.

MISCELLANEOUS

89. STORMWATER NOT TO FLOW INTO SEWERS AND SEPTIC TANKS

(1) No person shall cause or permit any spring water, sub-soil water, surface water, or stormwater to discharge or flow into any sewer except with the written permission or by direction of the Engineer, which permission or direction shall be subject to the conditions *inter alia* that any such spring water, sub-soil water, surface water, or stormwater shall discharge into a trapped gully above the level of the water in the trap. In no case shall any such water as aforesaid be discharged or permitted to flow into any septic tank or similar works.

(2) Any person who contravenes the provisions of this regulation shall be guilty of an offence.

90. SEWAGE NOT TO FLOW INTO DRAINS OR STORMWATER CHANNELS

(1) No person shall cause or permit any sewer to discharge into or communicate with any private or public drain or open stormwater channel.

(2) Any person who contravenes the provisions of this regulation shall be guilty of an offence.

91. DISCHARGE FROM SWIMMING BATHS

(1) No water shall be discharged directly or indirectly from a swimming bath into a sewer unless written permission to do so shall first have been obtained from the Engineer.

(2) Any such written permission shall be subject to such conditions as the Engineer shall determine, including in particular a condition that the permission may be revoked at any time on the Engineer's giving one week's written notice of such revocation.

(3) No water from a swimming bath shall without the written permission of the Engineer first had and obtained be discharged directly or indirectly into a public drain.

(4) Any person who contravenes the provisions of Subregulations (1) and (3) of this regulation shall be guilty of an offence.

92. SUPPORT OF PIPING AND FITTINGS

Strap hangers may be used for all pipes of nominal bore up to 50 millimetres; ring hangers shall be used for all pipes of greater size. Such hangers shall be of

patroon gemaak wees en moet stewig aan die boukonstruksie bevestig word. Alle pype, uitgesonderd dié wat in die grond gelê word, moet op kort afstande stewig bevestig word aan dié deel van die muur of ander stewige deel van die struktuur waarlangs hulle gaan, om deurhanging te voorkom. Waterdigte lasse moet by mure of vloere gemaak word waar pype of toebehore deur sodanige mure of vloere gaan of daaraan bevestig is. Die bevestiging van pypsteunstukke aan klipmesselwerk, steenwerk, klip of betonagterwerk moet sonder die gebruik van houtproppe geskied.

93. VENTILASIE VAN VERTREK MET DREKWATERTOEBEHORE

Drekwatertoebehore in 'n gebou moet in 'n vertrek of kompartement met 'n buitemuur geplaas word: Met dien verstande dat sodanige toebehore teen of aangrensend aan die muur van 'n loodgieterskag geplaas kan word indien voldoende voorsorg getref word vir die ventilasie van die vertrek of kompartement waarin sodanige toebehore geïnstalleer word.

94. TOEGANG TOT PYPE EN VERBINDINGS

Alle steekoë moet maklik bygekom kan word sodat die loodgietwerkstelsel doeltreffend skoongemaak kan word. Enige deel van die loodgietwerkstelsel wat moontlik beskadig kan word, moet voldoende beskerm word.

95. TOEGANG TOT EN VERVANGING VAN BAKKE EN TENKS IN DAKSTRUKTURE EN INGESLOTE PLEKKE

'n Bak of tenk wat in 'n dakstruktuur geleë is of in 'n ander ingeslote plek aangebring word, moet so geïnstalleer word dat dit maklik bygekom kan word vir instandhoudingsdoeleindes of vir die vervanging van sodanige bak of tenk.

96. SANITÊRE TOEBEHORE MET PROPPE OF STOPPROPPE

Sanitêre toebehore met proppe of stopproppe moet aan die vereistes van SABS 497 voldoen en moet so aangebring word dat water nie in die oorloop kan bly wanneer die toebehore leeg is nie

97. SYFERDIGTE VLOERE

Drekwatertoebehore en baddens moet op syferdigte vloere geplaas word en stortbaddens moet oor baddens geplaas word of oor syferdigte vloere wat skuins afloop na 'n vuilwateruitlaat wat deur 'n sperder met 'n rooster aan die vuilriool verbind is.

98. ELEKTROLITIESE WERKING

Daar mag geen verbinding tussen metaalpype en bakke of tenks van 'n nie-eenderse metaal wees waar so 'n assosiasie van verskillende metale na die mening van die Ingenieur elektrolitiese werking kan veroorsaak nie.

corrosion-resistant metal of heavy pattern and shall be securely attached to the building construction. All pipes, except those laid in the ground, shall be securely fixed at frequent intervals to that portion of the wall or other rigid portion of the structure along which they pass, to preclude sagging. Water-tight joints to walls or floors shall be made where pipes or fittings pass through such walls or floors or are fixed thereto. The connection of pipe supports to masonry, brick-work, stone, or concrete backing shall be made without the use of wooden plugs.

93. VENTILATION OF ROOM CONTAINING SOIL-WATER FITTINGS

Every soil-water fitting in a building shall be placed in a room or compartment having an external wall: Provided that such fitting may be placed against or adjacent to the wall of a plumbing shaft if adequate provision is made for the ventilation of the room or compartment in which such fitting is installed.

94. ACCESS TO PIPES AND CONNECTIONS

All access eyes shall be readily accessible so as to enable the plumbing system to be effectively cleansed. Any part of the plumbing system which might be exposed to possible damage shall be adequately protected.

95. ACCESS TO AND REPLACEMENT OF CISTERNS AND TANKS IN ROOF STRUCTURES AND ENCLOSED POSITIONS

Every cistern or tank situated within a roof structure or in any other enclosed position shall be so installed as to be readily accessible for purposes of maintenance or replacement of such cistern or tank.

96. SANITARY FITTINGS HAVING PLUGS OR STOPPERS

Sanitary fittings having plugs or stoppers shall comply with the requirements of SABS 497 and shall be so constructed that water cannot remain in the overflow when the fitting is empty.

97. IMPERVIOUS FLOORS

Every soil-water fitting and every bath shall be placed on an impervious floor; and every shower shall be placed over a bath or over an impervious floor graded to a waste-water outlet connected through a trap fitted with a grating to the sewer.

98. ELECTROLYTIC ACTION

There shall be no connection between metal pipes and cisterns or tanks of dissimilar metal, where, in the opinion of the Engineer, such association of dissimilar metals may set up electrolytic action.

99. VERLOOPPYPE

Verlooppype wat aan die vereistes van SABS 559 voldoen, moet gebruik word wanneer 'n erdepypvuilriool regstreeks vergroot word. Die diameter van die ente van sodanige verlooppype moet ooreenstem met die diameter van die pype waarmee hulle verbind word en die gradiënt van sodanige groter pyp mag nie verminder word nie, tensy die soffietlyn van die verlooppyp in lyn met dié van die kleiner pyp is, en dieselfde helling het.

100. SKOONMAAK VAN RIOLERING- EN LOODGIETWERKSTELSEL VOOR GEBRUIK

Alle dele van vuilriole en van die loodgietwerkstelsel moet na installering of herstelwerk en voordat dit gebruik word, skoongemaak word van voegmengsels, metaalvylsels, los soldeersel of ander materiaal wat moontlik elektrolitiese werking, verstopping of beskadiging van enige aard kan veroorsaak.

PRIVAATRIOLE

101. VERBINDING VAN PRIVAATRIOLE MET OPENBARE RIOLE VERBODE

(1) Geen persoon mag 'n privaatriool met 'n openbare riool laat verbind of toelaat dat dit daarmee verbind word nie, en geen persoon mag fonteinwater, ondergrondse, oppervlak- of stormwater in 'n openbare riool laat loop of toelaat dat dit daarin loop nie, behalwe met die toestemming van en behoudens die voorwaardes voorgeskryf deur die Plaaslike Bestuur.

(2) Enigeen wat die bepalings van hierdie regulasie oortree, begaan 'n misdryf.

102. REËNWATERGEUTE EN GEUTPYPE

Geute en geutpype en die voegwerk daarvan moet van duursame, waterdigte materiaal wees.

103. GROOTTE VAN REËNWATERGEUTE EN GEUTPYPE[7]

Die grootte van 'n reënwatergeut moet bereken word op die basis van 7 vierkante sentimeter dwarsdeursnee-oppervlakte vir elke 5 vierkante meter dakoppervlakte wat deur sodanige geut bedien word. Die grootte van 'n reënwatergeutpyp moet bereken word op die basis van 7 vierkante sentimeter dwarsdeursnee-oppervlakte vir elke 7 vierkante meter dakoppervlakte wat deur sodanige geutpyp bedien word.

104. GROOTTE VAN PRIVAATRIOLE

Geen privaatriool mag 'n diameter van minder as 100 millimeter hê nie, maar die Plaaslike Bestuur kan die konstruksie van groter privaatriole vereis waar hy dit nodig ag.

105. VERBINDINGS MET GEUTPYPE VERBODE

Reënwatergeutpype mag nie as vuilwaterpype, vuilpype of rioollugpype gebruik word nie, en vuilwaterpype, vuilpype of rioollugpype mag nie as reënwatergeutpype gebruik word nie.

[7] Bogenoemde syfers is op hoëreënvalgebiede (150 millimeter per uur vir 5 minute) van toepassing. Vir ander gebiede as hoëreënvalgebiede kan die Plaaslike Bestuur 'n kleiner dwarsdeursnee-oppervlakte vereis.

99. TAPERED PIPES

Tapered pipes complying with the requirements of SABS 559 shall be used when directly increasing the size of an earthenware sewer. The diameter of the ends of such tapered pipes shall correspond to the diameter of the pipes to which they are connected and the gradient of such larger pipe shall not be decreased unless the soffit of the taper pipe is in line with that of the smaller pipe and on the same gradient.

100. CLEANING OF SEWERAGE AND PLUMBING SYSTEM BEFORE USE

All parts of sewers and of the plumbing system shall, after installation or repairs and before being used, be left clean of all jointing compounds, metal filings, loose solder, or any other materials liable to cause electrolytic action, stoppage, or damage of any kind.

101. CONNECTION OF PRIVATE DRAINS TO PUBLIC DRAINS PROHIBITED

(1) No person shall cause or permit any private drain to communicate with any public drain, and no person shall cause or permit any spring water, sub-soil, surface, or stormwater to flow into any public drain except with the permission of, and subject to conditions laid down by, the Local Authority.

(2) Any person who contravenes the provisions of this regulation shall be guilty of an offence.

102. RAINWATER GUTTERS AND DOWN PIPES

Gutters and down pipes and the jointing thereof shall be of durable water-tight material.

103. SIZE OF RAINWATER GUTTERS AND DOWN PIPES[7]

The size of a rainwater gutter shall be calculated on the basis of 7 square centimetres of cross-sectional area for every 5 square metres of roof area served by such gutter. The size of a rainwater down pipe shall be calculated on the basis of 7 square centimetres of cross-sectional area for every 7 square metres of roof area served by such down pipe.

104. SIZE OF PRIVATE DRAINS

No private drain shall have a diameter of less than 100 millimetres, but the Local Authority may require the construction of larger private drains where it considers it necessary so to do.

105. CONNECTIONS WITH DOWN PIPES PROHIBITED

Rainwater down pipes shall not be used as waste, soil, or vent pipes, nor shall any waste, soil, or vent pipe be used as rainwater down pipes.

[7] The above figures apply to rainfall areas of high intensity (150 millimetres/hr for 5 minutes). For areas with a rainfall of different intensity the Local Authority may wish to vary the required cross-sectional area.

106. INGEBOUDE PYPE VIR REËNWATER

Alle reënwatergeutpype, indien hulle so ingebou is dat hulle nie bygekom kan word nie, moet gemaak wees van gietyster wat doeltreffend teen korrosie bestand gemaak is of van gegalvaniseerde sagtestaal met skroefdraad.

SEPTIESE TENKS EN PRIVAATRIOOLSLYK-INSTALLASIES

107. ALGEMEEN

(1) Geen persoon mag sonder die skriftelike toestemming van die Plaaslike Bestuur onder die hand van die Ingenieur 'n septiese tenk en bybehorende rioolslykinstallasie vir die behandeling en wegdoening van rioolvuil op enige perseel aanbring of gebruik nie.

(2) Enigeen wat die bepalings van subregulasie (1) van hierdie regulasie oortree, begaan 'n misdryf.

(3) Voordat die Plaaslike Bestuur sodanige toestemming gee, moet hy daarvan oortuig wees dat sodanige septiese tenk en sodanige rioolslykinstallasie nie 'n oorlas of nie skadelik vir die openbare gesondheid sal wees nie en dat dit onprakties is om die betrokke perseel met die openbare vuilriool te verbind.

108. SEPTIESE TENK — ONTWERP EN KONSTRUKSIE

'n Septiese tenk moet 'n ontwerp en konstruksie hê wat deur die Plaaslike Bestuur goedgekeur is en moet aan die volgende vereistes voldoen:

(*a*) Dit moet minstens 3 meter van enige gebou en van die grens van die betrokke perseel geleë wees en moet so geplaas word dat dit nie 'n openbare of privaatwatervoorraad sal besoedel nie en dat dit nie op 'n plek is wat deur voertuigverkeer gebruik word of gebruik kan word nie.

(*b*) Dit moet waterdig wees, en geen fontein-, ondergrondse, oppervlak- of stormwater mag toegelaat word om dit binne te gaan nie.

(*c*) Dit moet 'n inhoudsvermoë onderkant die bodem van die uitlaatpyp hê van minstens 1 350 liter, of 360 liter per toevoerder, watter ook al die grootste is. In die geval van septiese tenks wat meer as 20 toevoerders bedien, kan die inhoudsvermoë verminder word tot 180 liter per toevoerder indien daar tot tevredenheid van die Ingenieur voorsiening gemaak word vir ontslyking en vir die wegdoening van slyk.

(*d*) Dit moet doeltreffend bedek en geventileer word om reuke daaruit te beperk en om die broei van muskiete te verhoed.

(*e*) Toegang tot die binnekant daarvan moet moontlik wees sodat slyk verwyder kan word.

109. WEGDOENING VAN UITVLOEISEL VAN SEPTIESE TENKS

Voordat die Plaaslike Bestuur toestemming verleen vir die konstruksie van 'n septiese tenk en bybehorende rioolslykinstallasie, moet 'n aantal toetsgate, soos deur die Ingenieur vereis, egalig oor die terrein van sodanige bybehorende rioolslykinstallasie geboor word tot die diepte van die putte of slote waaruit sodanige installasie sal bestaan. Elke toetsgat moet 'n diameter van tussen

106. BUILT-IN PIPES FOR RAINWATER

All rainwater down pipes if built in so as to be inaccessible shall be of cast iron which has been effectively proofed against corrosion or of screwed galvanized mild steel.

SEPTIC TANKS AND PRIVATE DISPOSAL PLANTS

107. GENERAL

(1) No person shall on any premises construct or use any septic tank and appurtenant disposal works for the treatment and disposal of sewage without the written consent of the Local Authority given under the hand of the Engineer.

(2) Any person who contravenes the provisions of Subregulation (1) of this regulation shall be guilty of an offence.

(3) Before giving such consent the Local Authority shall be satisfied that such septic tank and such disposal works can be operated without nuisance or danger to public health and that it is impracticable to connect the premises in question to the public sewer.

108. SEPTIC TANK—DESIGN AND CONSTRUCTION

Every septic tank shall be of a design and construction approved by the Local Authority and shall comply with the following requirements:

(*a*) It shall be situated at least 3 metres from any building and from the boundary of the premises concerned and shall be so located that it will not contaminate any public or private water supply and that it is not in any area which is or may be used by vehicular traffic.

(*b*) It shall be water-tight, and no spring, sub-soil, surface, or stormwater shall be permitted to enter it.

(*c*) It shall have a capacity below the invert of the outlet pipe of not less than 1 350 litres or 360 litres per contributor, whichever is the greater. In the case of septic tanks serving more than 20 contributors, the capacity may be reduced to 180 litres per contributor if provision is made for desludging and sludge disposal to the satisfaction of the Engineer.

(*d*) It shall be effectively covered and ventilated so as to minimize smell therefrom and to prevent the breeding of mosquitoes.

(*e*) It shall be provided with access to its interior for the purpose of removing sludge.

109. DISPOSAL OF EFFLUENT FROM SEPTIC TANKS

Before the approval of the Local Authority is granted for the construction of a septic tank and appurtenant disposal works, a number of test holes, as required

100 millimeter en 300 millimeter hê. Die kante van elke sodanige gat moet grof gemaak word om 'n natuurlike infiltrasie-oppervlak te verskaf. Alle los materiaal moet van die bodem van sodanige gat verwyder word en deur 'n 50-millimeter-gruislaag vervang word om uitspoeling te voorkom wanneer die gat met water gevul word.

Voordat daar met 'n toets begin word, moet die grond waaruit die wand van elke toetsgat bestaan, deeglik geweek word deur sodanige gat met water te vul tot 'n hoogte van minstens 300 millimeter bo die gruis. Hierdie waterstand moet minstens 4 uur lank behou word deur die aanhoudende byvoeging van water. Na hierdie aanvangsweking en wanneer die water weggesyfer het, moet sodanige gat met water gevul word tot 'n hoogte van 150 millimeter bo die gruis en moet die daling in die watervlak 30 minute lank waargeneem word. As al die water gedurende hierdie tydperk wegsyfer, moet die tyd wat dit geduur het, aangeteken word. So nie, moet die daling in die watervlak na die tydperk van 30 minute gemeet word.

Volgens hierdie waarnemings moet die deursyfertempo, d.w.s. die gemiddelde tyd wat die water neem om 25 millimeter te sak, bereken word, en volgens tabel IX moet die maksimum toelaatbare oorbrengingstempo na ondergrondse infiltrasie-oppervlaktes bepaal word.

TABEL IX

MAKSIMUM TOELAATBARE OORBRENGINGSTEMPO VAN UITVLOEISEL NA ONDERGROND

1	2
Deursyfertempo	Maksimum toelaatbare oorbrengingstempo van septiesetenk-uitvloeisel na ondergrondse infiltrasie-oppervlaktes (liter per vierkante meter per dag)
1 minuut of minder	150–200
5 minute	100
10 minute	75
15 minute	50
30 minute	37·5
60 minute	25
meer as 60 minute	nie vir deursyfering geskik nie

Indien die Plaaslike Bestuur daarna die konstruksie van 'n septiese tenk en bybehorende rioolslykinstallasie goedkeur, moet uitgrawings vir sodanige installasie in die vorm van slote of putte gemaak word waarvan die kante grof gemaak moet word om 'n natuurlike infiltrasie-oppervlak te verseker. Slootbodems moet afgeskuins word tot 'n helling van tussen 1 op 16 en 1 op 33.

Aanliggende slote of putte moet so geplaas word dat die vry afstand van die symuur van een sloot of put tot by die symuur van 'n aanliggende sloot of put minstens twee keer die diepte van die dieper sloot of put is.

Die sloot of put moet met skoon, growwe aggregaat (ongeveer 40 millimeter tot 150 millimeter groot) opgevul word tot by die hoogte van die bodem van die inlaatpyp. By hierdie hoogte moet verdeelpype met 'n diameter van minstens 75 millimeter, gemaak van ongeglasuurde erdewerk of soortgelyke deurtrekbare materiaal, met oop voeë (5-millimeter-opening) gelê word. Growwe aggregaat moet om die oop voeë geplaas word om die openings te beskerm. Die pype moet dan met growwe aggregaat tot 'n diepte van ongeveer 150 millimeter bo die bokant van die pype bedek word

by the Engineer, shall be sunk uniformly over the site of such appurtenant disposal works to the depth of the pits or trenches constituting such works. Each test hole shall have a diameter between 100 and 300 millimetres. The sides of each such hole shall be roughened to provide a natural infiltration surface. All loose material shall be removed from the bottom of such hole and replaced by a 50 millimetre layer of gravel to prevent scouring when such hole is filled with water.

Before commencing a test the soil comprising the wall of each test hole shall be soaked thoroughly by filling such hole with water to a height of at least 300 millimetres above the gravel. This level of the water shall be maintained for at least 4 hours by constantly adding water. After this initial soaking and when the water has seeped away, such hole shall be filled with water to a height of 150 millimetres above the gravel and the drop in the water surface shall be observed for a period of 30 minutes. If all the water seeps away during this period the time taken shall be noted. If not, the drop in the water surface after the 30 minute period shall be measured.

From these observations the percolation rate, that is the average time for the water to drop 25 millimetres shall be calculated, and from Table IX the maximum allowable rate of application to subsoil infiltration areas shall be determined.

TABLE IX

MAXIMUM ALLOWABLE RATE OF APPLICATION OF EFFLUENT TO SUBSOIL

1	2
Percolation rate	Maximum allowable rate of application of septic tank effluent to subsoil infiltration areas (litres per square metre per day)
1 minute or less	150–200
5 minutes	100
10 minutes	75
15 minutes	50
30 minutes	37·5
60 minutes	25
more than 60 minutes	not suitable for percolation

Should the Local Authority thereupon approve the construction of a septic tank and appurtenant disposal works, excavation for such works shall be made in the form of trenches or pits, the sides of which shall be roughened to ensure a natural infiltration surface. Trench bottoms shall be graded to a fall of between 1 in 16 and 1 in 33.

Adjoining trenches or pits shall be placed so that the clear distance from the side wall of one trench or pit to the side wall of an adjoining trench or pit shall not be less than twice the depth of the deeper trench or pit.

The trench or pit shall be filled with clean coarse aggregate (approximately 40 to 150 millimetres in size) up to the level of the invert of the inlet pipe. At this level, distribution pipes not less than 75 millimetres in diameter, made of unglazed earthenware or similar permeable material shall be laid with open joints (5 millimetres opening). Coarse aggregate shall be packed round the open joints to protect the openings. The pipes shall then be covered with coarse aggregate to a depth of approximately 150 millimetres above the top of the pipes. Above this shall be spread a layer of

Hieroor moet 'n laag strooi, goiing of fyn aggregaat gesprei word om te verhoed dat terugvulgrond die sloot of put binnekom. Die terugvulgrond moet dan verby die breedte van die sloot of put opgehoop word om te verhoed dat oppervlakwater die sloot of put binnekom.

In die geval van putte of slote waar die totale horisontale afmeting minder as 6 meter is, kan die verdeelpype weggelaat word. In so 'n geval moet die slootbodem sonder afskuinsing uitgegrawe word.

Waar die Plaaslike Bestuur dit vereis, moet die rioolslykinstallasiegebied in twee of drie afsonderlike afdelings yan 'n beheerkamer voorsien word om die vloei tussen verskillende afdelings te wissel.

Die sywandoppervlaktes onder die inlaatpypbodem van rioolslykinstallasies moet so groot wees dat die oorbrengingstempo, soos volgens tabel IX bepaal, nie oorskry word nie. Vir die doel van hierdie paragraaf word geag dat die hoeveelheid septiesetenk-uitvloeisel 675 liter per dag of 180 liter per toevoerder per dag is, watter ook al die grootste is.

110. RIOOLTENKS

(1) Geen persoon mag sonder die skriftelike toestemming van die Plaaslike Bestuur onder die hand van die Ingenieur 'n riooltenk oprig of gebruik nie. Sodanige tenk moet aan die volgende vereistes voldoen:

(*a*) Behalwe soos in paragraaf (*b*) van hierdie regulasie bepaal, moet die netto inhoudsvermoë Q (bereken deur gebruikmaking van die diepte, soos gemeet van die bodemhoogte van die inlaatpyp tot by die vlo : van die tenk) minstens as volg wees:

$$Q = d \times c \times q \text{ liter}$$

waar:

d = die maksimum aantal dae tussen volledige ledigings van die tenk

c = die aantal toevoerders na die tenk

q = die hoeveelheid liter per dag afkomstig van elke toevoerder soos in tabel X uiteengesit

TABEL X

WAARDES VAN q (liter)

1		2	
Woongeboue en Inrigtings		*Besigheidsgeboue*	
Blankes	160	Blankes	36
Nie-Blankes	90	Nie-Blankes	27

(*b*) 'n Riooltenk moet 'n minimum inhoudsvermoë van 5 000 liter hê, maar sodanige inhoudsvermoë moet in elk geval voldoende wees vir minstens 3 dae se opgaring.

(*c*) Die suighoogte in die suigpyp mag nie 2·1 meter by 'n hoogte van 2 000 meter bo seespieël of 3 meter by seespieël oorskry nie. Op plekke tussen hierdie twee hoogtes moet die maksimum toelaatbare hoogte deur interpolasie bepaal word.

(*d*) Die tenk moet so opgerig word dat gas wat in die tenk gevorm word met die vuilriool langs kan ontsnap deur die rioollugpyp bo-op die vuilriool waarmee sodanige tenk verbind is.

straw, hessian, or fine aggregate to prevent the backfill from entering the trench or pit. The backfill shall then be heaped beyond the width of the trench or pit to prevent surface water from entering the trench or pit.

In the case of pits or trenches where the total horizontal dimension is less than 6 metres, the distribution pipes may be omitted in which case the trench bottom shall be excavated with no grading.

Where required by the Local Authority the disposal works area shall be provided in two or three separate sections with a control chamber to alternate the flow between different sections.

The side wall areas below the inlet pipe invert of every disposal works shall be of such size that the rate of application as determined from Table IX shall not be exceeded. For the purpose of this paragraph the quantity of septic tank effluent shall be deemed to be 675 litres per day or 180 litres per contributor per day whichever is the greater.

110. CONSERVING TANKS

(1) No person shall construct or use any conserving tank without the written consent of the Local Authority given under the hand of the Engineer. Such tank shall conform to the following requirements:

(*a*) Except as provided for in Paragraph (*b*) of this regulation the nett capacity Q (calculated by using the depth as measured from the invert level of the inlet pipe to the floor of the tank) shall be not less than

$$Q = d \times c \times q \text{ litres}$$

where:

d = the maximum number of days between complete evacuations of the tank

c = the number of contributors to the tank

q = the quantity in litres contributed per day by each contributor as set out in Table X.

TABLE X

VALUES OF q (litres)

1		2	
Residential and Institutional buildings		*Business buildings*	
Whites	160	Whites	36
Non-Whites	90	Non-Whites	27

(*b*) A conserving tank shall have a minimum capacity of 5 000 litres but such capacity shall in any case be sufficient for at least three days' storage.

(*c*) The suction lift in the suction pipe shall not exceed 2·1 metres at an altitude of 2 000 metres above sea level and 3 metres at sea level. In localities between these altitudes the maximum permissible lift shall be determined by interpolation.

(*d*) The tank shall be so constructed that any gas forming in the tank can escape along the sewer through the vent pipe at the top of the sewer to which such tank is connected.

(*e*) Die tenk moet so na as moontlik aan 'n straatgrens geplaas word sodat dit maklik leeggemaak kan word. Indien dit nie moontlik is nie, moet daar vir gerieflike toegang tot die tenk voorsiening gemaak word.

(*f*) Die tenk moet van 'n mangat, minstens 600 millimeter by 450 millimeter groot, voorsien word vir inspeksie en skoonmaak van die tenk. Sodanige mangat moet tot bokant grondhoogte opgebou word om te verhoed dat fontein-, ondergrondse, oppervlak- of stormwater die tenk binnegaan.

(*g*) Die tenk moet waterdig wees.

(*h*) Die tenk moet so ontwerp word dat dit 300 millimeter grondbedekking oor die dekblad kan steun. Waar voertuigverkeer oor die dekblad kan gaan, moet die bykomende las wat op sodanige blad opgelê word as gevolg van die deurgang van sodanige verkeer in ag geneem word by die ontwerp van die tenk.

(2) Enigeen wat die bepalings van hierdie regulasie oortree, begaan 'n misdryf.

111. RIOOLVUILLIGTERS

Waar sanitêre toebehore onder die vlak van 'n openbare vuilriool aangebring is of op 'n vlak wat nie hoog genoeg is om 'n selfskoonmaakvloeisnelheid na sodanige vuilriool te verseker nie of waar daar na die mening van die Ingenieur die gevaar van terugloop bestaan indien sodanige vuilriool oorbelas sou word, moet die rioolvuil uit sodanige toebehore deur middel van 'n riool- of ander pomp, hewel of ander goedgekeurde meganiese toestel gelig word tot sodanige hoogte as wat die Ingenieur mag vereis en moet dit afgevoer word in sodanige vuilriool, soos en waar en teen so 'n tempo en op sulke tye as wat die Ingenieur mag aanwys.

'n Doeltreffende terugslagklep en 'n sperder moet voor verbinding met sodanige vuilriool aangebring word en moet in 'n goeie werkende toestand gehou word.

Die vuilwater- of vuilpyp wat na sodanige riool- of ander pomp, hewel of ander goedgekeurde meganiese toestel lei, moet voorsien word van 'n rioollugpyp wat in die geval van 'n vuilpyp 'n binnediameter van minstens 100 millimeter moet hê en in die geval van 'n vuilwaterpyp minstens dieselfde binnediameter as sodanige vuilwaterpyp moet hê.

112. DREINERING VIR STALLE, ENS.

Die riolering vanaf stalle, koeistalle, melkerye, markpleine, slagplase, voertuigwasplekke en ander plekke van 'n dergelike aard moet met 'n openbare vuilriool verbind word of, indien laasgenoemde nie beskikbaar is nie, met private behandelings- en rioolslykinstallasies of met riooltenks, en daarbenewens moet aan die volgende vereistes voldoen word:

(*a*) Die plek wat verbind word, moet so bedek word dat die ingang van reënwater in sodanige openbare vuilriool, private behandelings- en rioolslykinstallasie of riooltenks verhoed word.

(*b*) Die plek wat verbind word, moet tot tevredenheid van die Ingenieur geplavei en afgeskuins word.

(*e*) The tank shall be placed as near as possible to a street boundary so that it can be readily emptied. If this is not possible, a convenient means of access to the tank shall be provided.

(*f*) The tank shall be provided with a manhole at least 600 by 450 millimetres for inspection and cleaning of the tank. Such manhole shall be brought up to above ground level so as to prevent spring, sub-soil, surface, or stormwater from entering the tank.

(*g*) The tank shall be water-tight.

(*h*) The tank shall be designed so as to support 300 millimetres of earth cover over the top of the covering slab. Where vehicular traffic might pass over the slab, the additional load imposed upon such slab due to the passage of such vehicular traffic shall be taken into account in the design of the tank.

(2) Any person who contravenes the provisions of this regulation shall be guilty of an offence.

111. SEWAGE LIFTS

Where a sanitary fitting is below the level of a public sewer or is at a level which is not sufficient to secure a self-cleansing velocity of flow to such sewer or where in the opinion of the Engineer there is a risk of backflow in the event of such sewer becoming surcharged, the sewage from such fitting shall be raised by ejector, pump, siphon, or other approved mechanical appliance to such height as may be required by the Engineer and discharged into such sewer, as and where and at such rate and at such times as directed by the Engineer.

An efficient non-return flow valve and a trap shall be fixed prior to connection with such sewer and shall be maintained in good working order.

The waste or soil pipe, leading to such ejector, pump, siphon, or other approved mechanical appliance, shall be provided with a vent which in the case of such soil pipe shall be not less than 100 millimetres in internal diameter and in the case of such waste pipe shall be at least of the same internal diameter as such waste pipe.

112. DRAINAGE FOR STABLES, ETC.

The sewerage from stables, cowsheds, dairies, market places, abattoirs, areas for washing vehicles, and other places of a like nature shall be connected to a public sewer or, if such is not available, to private treatment and disposal plants or to conserving tanks and in addition the following requirements shall be complied with:

(*a*) The place to be connected shall be so roofed as to prevent the entry of rainwater into such public sewer, private treatment and disposal plants, or conserving tanks.

(*b*) The place to be connected shall be paved and graded to the satisfaction of the Engineer.

(*c*) Die privaatvuilriool wat sodanige plek bedien, moet van 'n doeltreffende slik- of petrol- of ghriesvanger met 'n verwyderbare rooster voorsien word.

ONDERSOEK EN TOETSE: ALGEMEEN

113. MATERIAAL EN ARBEID

Alle uitrusting, materiaal en arbeid wat nodig is om die Plaaslike Bestuur in staat te stel om loodgieters- of rioleringswerk te ondersoek of te toets moet verskaf word deur die persoon wat sodanige loodgieters-, of rioleringswerk doen.

114. GEBREKKIGE MATERIAAL OF AFWERKING

Indien die ondersoek of toets van riolerings- of loodgieterswerk die aanwesigheid van gebrekkige materiaal of werk aan die lig bring, moet sodanige gebrekkige materiaal of werk vervang of oorgedoen word en moet die ondersoek en toets of toetse herhaal word totdat sodanige loodgieters- of rioleringswerk aan die vereistes van die toetse wat in regulasie 117 voorgeskryf word, voldoen.

115. SERTIFIKAAT VAN GOEDKEURING

(1) Na die voltooiing van finale toetse op loodgieters- of rioleringswerk, met bevredigende resultate, moet die Plaaslike Bestuur aan die persoon wat die werk gedoen het, 'n sertifikaat van goedkeuring uitreik en geen eienaar of okkupeerder van 'n gebou mag die installasie gebruik tot tyd en wyl sodanige sertifikaat uitgereik is nie.

(2) Enige eienaar of okkupeerder wat die bepalings van hierdie regulasie oortree, begaan 'n misdryf.

116. TOETS VAN BESTAANDE RIOLERINGSWERK

(1) Wanneer die Plaaslike Bestuur rede het om te vermoed dat rioleringswerk defek geraak het, kan hy die eienaar daarvan gelas om sonder koste vir die Plaaslike Bestuur enigeen van die toetse of al die toetse wat by regulasie 117 voorgeskryf word, uit te voer. Enige veranderings of herstelwerk aan sodanige rioleringswerk wat as gevolg van sodanige toetse vereis word, moet deur die eienaar op sy koste gedoen word binne dié tydperk wat gespesifiseer word in 'n skriftelike kennisgewing wat deur die Plaaslike Bestuur onder die hand van die Ingenieur aan sodanige eienaar beteken word.

(2) Enige eienaar wat versuim om aan 'n bevel of kennisgewing uitgereik kragtens subregulasie (1) van hierdie regulasie uitvoering te gee, begaan 'n misdryf.

TOETSE

117. TOETSE

Na voltooiing van riolerings- en loodgieterswerk, maar voordat sodanige werk met 'n riooltenk, 'n septiese tenk of 'n openbare vuilriool verbind word, moet sodanige werk deur een van die Plaaslike Bestuur se gemagtigde werknemers geïnspekteer word en moet enigeen van die volgende toetse of al die toetse in die teenwoordigheid van sodanige werknemer uitgevoer

(*c*) The private sewer serving such place shall be provided with an effective silt or petrol or grease trap with removable grating.

INSPECTION AND TESTING: GENERAL

113. MATERIAL AND LABOUR

All equipment, materials, and labour necessary to enable the Local Authority to inspect or test any plumbing work or sewerage work shall be furnished by the person executing such plumbing or sewerage work.

114. DEFECTIVE MATERIALS OR WORKMANSHIP

If the inspection or testing of sewerage work or plumbing work reveals the presence of defective materials or work, such defective materials or work shall be replaced or redone, and the inspection and test or tests shall be repeated, until such plumbing work or sewerage work satisfies the tests prescribed by Regulation 117.

115. APPROVAL CERTIFICATE

(1) Upon the completion with satisfactory results of final tests on any plumbing or sewerage work, the Local Authority shall issue to the person executing the work a certificate of approval, and no owner or occupier of any building shall use the installation until such certificate has been granted.

(2) Any owner or occupier who contravenes the provisions of this regulation shall be guilty of an offence.

116. TEST OF EXISTING SEWERAGE WORK

(1) Whenever the Local Authority has reason to believe that sewerage work has become defective, it may order the owner thereof to conduct at no expense to the Local Authority any or all of the tests prescribed by Regulation 117. Any alterations or repairs to such sewerage work required as a result of such tests shall be carried out by the owner at his own expense within such period as may be stipulated in a written notice by the Local Authority under the hand of the Engineer served upon such owner.

(2) Any owner who fails to comply with any order or notice issued under Subregulation (1) of this regulation shall be guilty of an offence.

TESTING

117. TESTS

On completion of all sewerage and plumbing work but before such work is connected to a conserving tank, a septic tank, or a public sewer, such work shall be inspected by one of the Local Authority's authorized employees and any or all of the following tests shall, in the presence of such employee, be applied and such work shall withstand such tests to the satisfaction of the Engineer:

word en moet sodanige werk sodanige toetse tot die tevredenheid van die Ingenieur deurstaan:

(a) Die binnekant van elke pyp of reeks pype tussen twee toegangspunte moet oor die hele lengte daarvan deur middel van 'n spieël en 'n ligbron ondersoek word; 'n volledige sirkel moet deur die waarnemer gesien word en die pyp of reeks moet duidelik sonder hindernisse wees.

(b) 'n Gladde bal met 'n diameter van 12 millimeter minder as die nominale diameter van die pyp moet, wanneer dit by die boonste ent van die pyp of reeks pype ingesit word, sonder hulp of onderbreking tot by die onderste ent rol.

(c) Nadat alle openings in die pyp of reeks pype wat getoets moet word, toegestop of verseël is en alle sperders daarin met water gevul is, moet lug in genoemde pyp of reeks pype gepomp word totdat 'n manometriese druk van 40 millimeter water aangedui word, waarna genoemde druk sonder dat daar verder gepomp word, groter as 25 millimeter water moet bly vir 'n tydperk van minstens 30 sekondes.

b. TARIEWE
BYLAE

Gelde vir die gebruik van die Raad se rioolstelsel:

Onder die verbruikers van die Raad se afvoerkanale, riole en rioolwerke, word ook verstaan die eienaar van enige opgemete erf, gedeelte van 'n erf, bouperseel of stuk grond, met of sonder verbeterings, wat met enige riool van die Raad verbind is of volgens die mening van die Raad daarmee verbind kan word en die gelde wat deur sodanige gebruikers betaal moet word, is as volg:

A. BASIESE TARIEF:

Die eienaar van enige erf, bouperseel of stuk grond, met of sonder verbeterings, moet waar so 'n erf, bouperseel of stuk grond of landbougrond met die Raad se rioolstelsel verbind is of in gevalle waar sodanige lewering beskikbaar is, maar nie gebruik word nie, aan die Raad die volgende gelde, kwartaalliks vooruit betaal ten opsigte van elke sodanige erf, bouperseel of stuk grond, of landbougrond, naamlik; Met dien verstande dat die gelde aldus bepaal die minimum heffing is:

Per Kwartjaar.

Vir die eerste 1500 vierkante meter of gedeelte daarvan R10,00

Vir elke addidionele 500 vierkante meter of gedeelte daarvan R3,00

Maksimum tarief R400,00

(a) The interior of every pipe or series of pipes between two points of access shall be inspected throughout its length by means of a mirror and a source of light; a full circle shall appear to the observer, and the pipe or series shall be seen to be unobstructed.

(b) A smooth ball having a diameter 12 millimetres less than the nominal diameter of the pipe shall when inserted at the higher end of the pipe or series of pipes roll down without assistance or interruption to the lower end.

(c) All openings of the pipe or series of pipes to be tested having been plugged or sealed and all traps associated therewith filled with water, air shall be pumped into the said pipe or series of pipes until a manometric pressure of 40 millimetres is indicated, after which without further pumping the said pressure shall remain greater than 25 millimetres for a period of at least 30 seconds.

b. TARIFFS
ANNEXURE

Tariffs or charge for use of Council's sewerage system:

The users of the Council's drains, sewers or sewerage works, include the owner of any stand, lot, surveyed erf or portion of an erf, with or without improvements, which either is, or in the opinion of the Council, can be, connected to any sewer of the Council, and the charges payable by such users of the Council's drains, sewers or sewerage works, shall be as follows:

A. BASIC CHARGES:

The owner of any erf, stand or lot, with or without improvements shall, where such erf, stand or lot or agricultural land is connected with the Council's sewerage system, or in the case where such supply is available, but not made use of, pay to the Council, quarterly in advance, the following charges in respect of each such erf, stand or lot or agricultural land. Provided that the charges thus determined shall be the minimum charges:

Per Quarter Year

For the first 1500 square metres or portion thereof R10,00

For every additional 500 square metres or portion thereof R3,00

Maximum charges R400,00

B. ADDISIONELE GELDE:

(1) Benewens die basiese gelde vermeld in Deel A, moet eienaars van die betrokke persele wat met die Raad se riole verbind is, die volgende gelde per kwartaal vooruit betaal:

(a) (i) Woonhuise – Vir elke Blanke woonhuis R12,00

(ii) Woonhuise – Vir elke Kleurling woonhuis R9,00

(b) Woonstelle geheel en al vir woondoeleindes gebruik word: Addisionele gelde vir elke woonstel, met uitsondering van die kelder, motorhuis, bediendekamer en buitegeboue: Met dien verstande dat waar kamers slegs vir bewoning verhuur word sonder dat kos voorsien word, elke twee kamers wat onder dieselfde dak is, as een woonstel beskou word R12,00

(c) Kerke – vir elke kerk R10,00

(d) Kerksale – vir elke saal, slegs vir Godsdiensdoeleindes gebruik, waarvan geen inkomste verkry word nie: R10,00

(e) Kolleges, skole en koshuise: Addisionele gelde vir iedere 10 studente of leerlinge of gedeelte van 10 gebaseer op die gemiddelde daaglikse totaal gedurende die voorafgaande kalenderjaar (Die hoof van die betrokke kollege, skool of koshuis moet aan die einde van elke kalenderjaar 'n gewaarmerkte opgaaf aan die Raad verstrek R25,00

(f) Hotelle – Vir elke W.C. of urinaal R15.00

(g) Besighede en kantore:
Vir elke W.C. of urinaal R15.00

(h) Tronke: Vir elke W.C. of urinaal R15.00

(i) Hospitale: Vir elke W.C. of urinaal R15.00

(j) Kleuterskool: Vir elke W.C. of urinaal R12,00

(k) Sport en Skougronde:
Vir elke W.C. of urinaal R8,00

(l) Alle ander openbare geboue: Vir elke W.C. of urinaal R15.00

Met dien verstande dat, waar die trogstelsel toegepas word, elke 750 mm in lengte aan trog of geut wat vir urinale- of waterklosetdoeleindes gebruik word, of bedoel is om aldus gebruik te word as een urinaal- of klosetinrigting, na gelang, by die toepassing van hierdie tariewe beskou word: Met dien verstande voorts dat, waar die aantal waterklosette wat in so 'n

B. ADDITIONAL CHARGES:

(1) The following amounts in addition to those specified in A above, shall be paid quarterly in advance by the owners of all premises which are connected to the Council's sewerage system:

(a) (i) Dwellings — for each European dwelling R12,00

(ii) Dwellings — for each Coloured dwelling R9,00

(b) Flats used wholly for residential purposes: Additional charge per flat, excluding the basement, garage, servant's quarters and outbuildings: Provided that in cases where rooms are let solely for occupation without the provision of meals, every two rooms under the same roof will be taken as one flat R12,00

(c) Churches — for each church R10,00

(d) Church halls — Additional charges for each hall used for ecclesiastical purposes only, and from which no revenue is derived R10.00

(e) Colleges, schools and hostels: Additional charge for every 10 students or scholars or portion of 10 based on the average daily total during the preceding calender year (A certified return must be furnished to the Council at the end of each calender year by the principal of the college or school concerned) R25.00

(f) Hotels — For every W.C. or urinal R15.00

(g) Business premises and offices:
For every W.C. or urinal R15.00

(h) Prisons: For every W.C. or urinal R15.00

(i) Hospitals: For every W.C. or urinal R15.00

(j) Creches: For every W.C. or urinal R12.00

(k) Sport & Showgrounds:
For every W.C. or urinal R8.00

(l) All other public buildings: For every W.C. or urinal R15.00

Provided that, where the trough system is adopted, each 750 mm length of trough or gutter used for urinal or water closet purposes, or designed so to be used, shall be considered as one urinal or closet fittings, as the case may be, for the purpose of these charges: Provided further that when the number of water closets in use in such a building is more than

gebou gebruik word, meer is as wat deur die bouverordeninge vereis word, die tarief vir elke sodanige waterkloset wat te veel is, R3,00 per kwartaal is.

Die bogemelde tarief is ten opsigte van persele wat reeds by die rioolnetwerk aangesluit is, betaalbaar van afkondiging van hierdie regulasie af en wat ander persele betref, van die laaste dag wat die Stadsklerk bepaal waarop aansluitings by die riool gemaak moet word, of van die datum waarop so 'n aansluiting gemaak is, welke datum die vroegste is.

Alle ander persele wat by die Raad se rioleringstelsel aangesluit is en wat nie binne enige van bogenoemde klasse val nie: Die addisionele gelde moet met die Raad ooreengekom word en moet sover moontlik in ooreenstemming met bogenoemde tarief wees.

2(a) Indien enige gebou tydens konstruksie in afdelings geokkupeer word, word tariewe in rekening gebring vir die eerste maand van sodanige okkupasie teen 25 persent: Vir die tweede maand teen 50 persent: Vir die derde maand teen 75 persent: en daarna teen die volle bedrag van die addisionele tarief ten opsigte van sodanige gebou.

(b) Alle gelde wat ingevolge hierdie tarief gehef word, is kwartaalliks vooruitbetaalbaar.

(c) Die gelde wat in hierdie aanhangsel aangegee word, is betaalbaar aan die Raad en die eienaar van die eiendom waarop die gelde betrekking het, is daarvoor aanspreeklik.

(d) Iemand wat gelas word om ingevolge hierdie aanhangsel 'n opgawe in te dien of ander inligting te verstrek wat die Raad nodig het om die gelde ingevolge die aanhangsel te kan bereken en wat versuim om dit te doen, binne 30 dae nadat hy skriftelik kennis ontvang het om dit te doen, moet die gelde betaal wat die Raad met die beste inligting tot sy beskikking bereken.

(e) Die Stadsklerk se beslissing in enige geskil ten opsigte van klassifikasie is afdoende.

C. OPGAWES, DATUM VAN BETALING, ENS.:

(a) Indien 'n persoon of persone van wie vereis word om 'n opgaaf of opgawes kragtens hierdie bylae te verstrek, in gebreke bly om sulks binne dertig dae te doen na kennisgewing onderteken deur die Stadstesourier, kan die Raad vir die gebruik van die Raad se riole sodanige gelde hef soos hy, kragtens hierdie tarief, redelik ag.

required by the building regulations there will be a charge of R3,00 per quarter for every such additional water closet.

Concerning premises already connected to the sewerage network, the above-mentioned tariff is payable on promulgation of this regulation, and concerning other premises, the tariff is payable from the last day for the connections of house sewers as determined by the Town Clerk or the date on which the connection is made, whichever is the earlier.

All other premises connected to the Council's sewerage system, and not falling under any of the above classes: Additional charge to be the subject of agreement with the Council, which shall, so far as possible, be in conformity with the above tariff.

2(a) Should any building be occupied in sections during construction, charges in respect of such occupied sections shall be calculated for the first month such occupation at 25 percent: For the second month at 50 percent: For the third month at 75 percent and thereafter at the full amount of the additional charges in respect of such building.

(b) All charges made under this tariff, shall be payable quarterly in advance.

(c) The charges set out in the schedule is payable to the Council, and the owner of the property to which any charge relates, shall be liable therefor.

(d) Where any person who is required to furnish a return in terms of this schedule, or to provide such other information as may be necessary to enable the Council to determine the charges to be made under this schedule, fails to do so within 30 days after having been called upon to do so by notice in writing, he shall pay such charges as the Council shall assess on the best information available to it.

(e) In all cases of dispute as to classification, the decision of the Town Clerk shall be final.

C. RETURNS, DATE OF PAYMENT, ETC:

(a) Should any person or persons required to furnish a return or returns in terms of this Schedule fail to do so within thirty days after having been called upon to do so by notice under the hand of the Town Treasurer, the Council may make such charge for the use of the Council's sewers as, in terms of this tariff, appears to it to be reasonable.

(b) Indien 'n gebou gedurende die oprigting daarvan in dele bewoon word, moet daarvoor betaling geskied ooreenkomstig die getal uitrustings wat van tyd tot tyd in gebruik is.

D. GELDE VIR WERK:

(1) Wanneer 'n rioolstelsel van 'n straatriool afgekoppel word, moet die Raad die opening wat aldus in die straatriool ontstaan, verseël en die bedrag wat van die eienaar verhaalbaar is is R10,00 (TIEN RAND).

(2) Die Raad kan self, of die eienaar hom nou versoek het om dit te doen of nie, na goeddunke 'n verstopte rioolstelsel oopmaak en kan die gelde soos volg op die eienaar verhaal:

(i) Op weekdae — Vir die eerste halfuur nadat daar met die werk begin is R5,00

Vir iedere halfuur wat daarna gewerk word R3,00

(ii) Op Sondae en openbare vakansiedae — Vir die eerste halfuur soos vermeld ... R8,00

Vir iedere halfuur daarna R4,00

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(b) Should any building be occupied in sections during the construction, these shall be charged for according to the number of fitments in use from time to time.

D. WORK CHARGES:

(1) On any disconnection of a drainage installation from a sewer, the Council shall seal the opening to the sewer so made, and shall recover from the owner the charge of R10,00 (TEN RAND) for such work.

(2) The Council itself shall, whether or not it has been requested by the owner to do so, be entitled at its discretion, to remove a blockage from a drainage installation and to recover from him in respect of such work, the following fees:

(i) Weekdays — For the first half-hour after the beginning of the work........................ R5,00

For every half-hour of work thereafter . R3,00

(ii) Sundays and public holidays — For the first half-hour as aforesaid...... R8,00

For every half-hour thereafter............. R4,00

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