

Nagapattinam Municipality



Under Ground Drainage By-law

Tamil Nadu District Municipalities Act 1920, under sections 138, 142, 147, 148, 149, 306(5)(B), 306(6) the statutory rules for provision of Residential Drainage system, Drainage pipes, Septic tanks and other sanitary provisions and connecting them to the Underground Drainage System.

One who for his own sake or others provides sanitary or other provisions for his new house or builds them for the existing buildings or makes alterations for the existing system should strictly follow to the following rules and regulations.

1. To discharge faces and right soil waters (stool waters) and stagnant dirt's. Except in places where there is only open drainage system the drainage water discharged and the rain water accumulated from each building and its surroundings should have separate outlet facilities.
2. The rain water from the terraces (roof) of the houses and their surroundings and open spaces should not be let out to reach the drainage gutters or pumping station. To facilitate rain water harvesting and improve ground water resources the rain water should flow to a particular place without any block, as approved by the Municipality Engineer. A rain water harvesting structure is mandatory provision to get the Underground Drainage System connection.
3. The owner of the house or the tenants should provide such facilities that are necessary for the rain water discharged from the top of the building with proper, drain pipe and canals.
4. It should be clearly noticed that solid or liquids of faces and gray water from wash basins or bath rooms should not mix with the rain water harvest process.
5. If such pipes are to be provided in wet places where water is likely to ooze. Further the rain water harvesting process needs to be done with cement concrete structures. If such provisions are to be laid in other places recommended by the Municipal Authority they should be built over the cement concrete or they should be covered by the cement concrete slab.
 - a) The faces and the black water discharged from the latrine and the gray water from the kitchen, bathroom or other places should have two different separate pipe connections in all residential areas. The internal building structure should be designed in such a way that the faces and the black water alone should fall into the underground drainage canals.
6. Construction of drainage system with Stoneware or C.I. Pipes. Those who lay drainages should use pipes of prescribed diameters. The inner diameter should not be less than 100mm. The diameter limit should be above the approved one by the Municipal Engineer or above the level of the water discharged.
 - a) The specification for the drainage gutter :-
The drainage should be in the pattern approved by the Municipal Engineer, as detailed below:-
Drainage of 100mm inner diameter - 40: 1
150mm inner diameter - 80: 1

- b) The drainage should be straight with a minimum number of bends in its course, suitable bend pipes and canals.
 - c) Necessary inspection chamber should be provided at the points of junction and bends to enable for future inspection in the event of dry block or failure in the system.
 - d) The following rules will be observed for granting connection for flats :-
 - 1. Up to four latrines - pipe 100 mm
 - 2. Above 4-8 latrines - pipe 150 mm
 - 3. Above 8 latrines - pipe 200 mm
 In the event of increase in residence the norms prescribed by the Municipal Engineer, should be followed strictly.
 - e) For every residential flat occupied by owners the deposit, service charges and property tax must be connected separately from each and every owner of the apartments.
7. Drainage pipe connecting manhole should be round in shape, smooth surface, leak proof, rust proof, C.I. Pipes stoneware pipes or concrete pipes. The pipes should be plastered with cement mortar both inside and outside or the joints should be tight and strong to prevent any inflow or outflow of water.
8. The specification for pipe connection laid as stated above as follows :-

Inner Diameter	Minimum gauge of pipes	Minimum depth of the socket	Minimum volume of cement
(1)	(2)	(3)	(4)
100 mm	12 mtr	50 mtr	10 mm
150 mm	16 mtr	57 mtr	11 mm
250 mm	20 mtr	70 mtr	16 mm

Pipe like the connection pipes should in the proper from with proper curves forming perfect circular shape. These pipes should be of C.I. Pipes, stone ware pipes or PVC pipes.

9. All kind of pipes connections should be perfectly fixed of spare parts approved by the Municipal Engineer.
- When the concrete pipes are used in the drainage system the pipe joints must be sealed, properly with cement sand mix of 1:1. In case of usage of C.I. Pipes, the joints must be sealed with melted lead to the depth of 9.4 mm. If the pipe is 100 mm dia, the gap between two pipes joint must be not less than 10 mm.
10. There should be wooden barricade in the pit to avoid any damage to surrounding places.
- a) Every pipe should be properly laid strong, further strengthened by pouring water. Where the soil is porous and wet drainage pipe should be laid on bed of cement concrete and plastered around as prescribed by the Municipal Engineer.
 - b) The design of above said drainage should be arranged in such a way that there should not be any in flow of water and the pressure resistance capacity must be prescribed. It must be got approved by the Municipal Engineer.
11. In addition to the air-holes for providing air every drainage should have a trap inside with a capacity to hold water level up to 50 mm. The trap may be either bell trap or dip trap.
12. The trap or the covering lid should be of the same specification approved and confirm to standard by the Municipal Engineer. The trap should be built on 10 mm concrete base with gratings of 2.5 cm. Water level less than 31 cm. It should be below the path level and the path should be built slanting to the level of the grating.
13. There should be proper iron lids covering them to check the in flow of surface water at street level into the drainage system.

14. Building pipe should not be connected with main drain pipe in a perpendicular or at same gradient level. In the event of connecting building drain to the main the building drain should run and connect linear angular path.
15. At no point the building drain should run under the buildings, in exceptional cases with following conditions :-
 - a) All drainage should be built in such a way as they are in a straight line.
 - b) The drainage pipe should be of C.I. pipes connected with lead or concrete pipes. They should be connected to the extent of 15cm with concrete.
 - c) The drainage system under the building should have manhole arrangements to have an open check.
16. When drainage has to pass through or under a wall, a circular arch of RCC concrete or of iron strong enough to bear the weight of the drainage need to be built to safe guard the circular portion. But at no time should the arch binder the drainage. When a wall needs to be built over or around the drainage. Proper protection has to be made as narrated above.
17. Air facilities to the drainage: - For larger drainages or at the entrance of the tributary drainages trap less opening need to provide. These opening should have free access to air without any trap or other such provisions. Every opening should be connected with the top of the drainage through a horizontal pipe. Such connections should be built as detailed below :-
 - a) The connection should not end 6 meters below or above a window or entrance of any building.
 - b) The connection that falls on the wall supporting the room should necessarily be above 60 cm or more.
 - c) Such connection should in no way be detrimental to the interests of the residents.
18. There should be whole without traps near the buildings as per the above rules at places where the engineer directs the connections to be made. The opening should be above but near the surface with connections for drainage pipes and tanks.
19. The gratings or ones made of other substances should be in relation to the diameter of the pipes enable free flow of air, without being smaller than the inner surface of the pipe, but with adequate holes.
20. Unless there is no other way, the pipes position should not be circular or angular but should strictly adhere to sub-rule 17. The pipes as stated earlier should have an inner diameter of not less than 100 mm and the cover and edge should have been made of C.I. iron as per Indian Standard Specifications and they should be open to the provisions of air.
21. It will be considered that if the stoneware pipe of the water tank or in every respect of their location, cross section area, height and building pattern as per rule 18 they are supposed to have opening as per rule 20.
22. Pipes discharging the black and gray water should have an inner diameter of 40-50 mm and made of lead or cast iron. They should be placed just below the level of the toilet with siphon arrangements. It should also be possible to open them in times of need and clean. Further no outer air should enter into it.
23. Every discharge pipe should be laid concealed along the outer wall and end at the open air drainage of the canal. It should as far as possible be of short in length.
24. Every such pipe as stated above should be fixed concealed as desired by the Engineer. If the pipes are of cast iron they should have holder bats or handles suitably fixed at proper points.

25. The water tank, the drainage cell, their accessories of operation, the basins for black or gray water, urinal and porcelain should all have connection with separate tubes of water. A side of the urinal should be the outer wall. No urinal or latrine should have access through a kitchen, store-room or rooms in use or machine rooms of factories. Normally they should have access through an open area.
26. Such urinal or latrine should have 125 cm, 85 cm as their minimum inner scale specifications. If they are located near the residential room of the house or machine rooms of a factory they should have a complete concealing wall or bricks and jelly from the top to the bottom. Such urinal or latrines should be built of smooth but with strong materials. The floor should be wet free from any water inflow. If they are built on a higher level they should have 13 mm to 30 mm and flow near at a distance of 0.05 mm. The floor level of any urinal or latrine should be 15 cm above the outer floor level. The urinals and the latrines should have doors with locking facilities.
27. There should be a window or an opening of 1,900 sq.cm on one of the walls of the urinal and latrine. Air hole of 120 sq.cm near the floor of 460 sq.cm at higher levels should be provided for free air flow.
28. Solely to clean the urinals or the latrines a twelve liter tank or if permitted by the Municipal Engineer a fifteen liter tank may be built there without room for water wastes. The tanks or its pipe should have no connection with drinking or other normal use water provision. The tank should be 1.5 meter above the floor level where water is likely to fall.

Every tank should have a circular shaped pipe with control wheel. Any overflow of water should be able to be watched from outside and the discharge pipe should facilitate it. But no water should directly flow into the drainage.

29. Under no circumstances no automatic water discharge arrangements can be made unless a written permission is obtained from the Municipal Commissioner. In addition to the permission from the commissioner permission has to be got from the Municipal Commissioner for the plan of the construction informing him the details of the construction with the materials to be used. The plan needs to be modified as directed by the Municipal Engineer.
30. The pipes, connecting the basins of the discharged water and water from urinal or latrine, with lids and joints should have an inner minimum diameter of not less than 32 mm in all places and should be horizontal to the maximum extent possible.
31. The basin accessories for the urinal basin or latrine used should be similar to ones approved by the Municipal Engineer. They should satisfy the following conditions :-
 1. The shape model and capacity of the container :-
 - a) It should contain enough water
 - b) The faces discharged in the basin should move down freely to the water on its own. The urinal basin should as far as possible be small.
 - c) It should be possible to have them clean completely with a little water.
 2. The basin should not be of the type of remove it out and clean it. If permitted as a special case alone, they should be connected directly with siphon arrangements. There should be water up to the level of not less than 51-1/2 mm between the drainage and the stoneware pipes. The outer mouth of the siphon should be except in extraordinary cases, visible to the viewers.
 3. There should be provision to the flush the water in and discharge the water out.
 4. No basin, tank or other provision should be covered with lids of wood or any other thing.

32. Drainage pipes: - The primary pipe carrying solid and liquid discharges should be far outside the building, as far as possible. They should have been made of cast iron or lead. If for some reason or other, they are to be laid inside the building they should be of melted lead, built with connections easily visible from outside. The lead used should be strong. The inner diameter should be uniformly 100 mm though out weighing 11 kg per meter. If the diameter is 125 mm the weight may be 15 kg per meter C.I. pipes of the ends and the cover should satisfy the Indian Standard specification.
33. The base of the drainage pipe should be made of concrete and strongly connected. The C.I. pipes, if used, should have holder bats. It is enough these pipe should be connected with the proper provisions of the wall, to the satisfaction of the Municipal Engineer.
34. If the head of the drainage pipes, inside or outside should be away from the rain water pipes or other such pipes without contaminating them. There should be no traps between the heads of the drainage pipes and the outer drainage pipes.
35. The head of the drainage pipes should be of circular shape of not less than 50 mm diameter. Except where it is impossible the inner or outer pipes running high in a building should have a diameter of not less than 100 mm. They should be sufficiently being in a higher position with no curved or angular structure. Such pipes taken to higher levels should have a suitable opening to discharge the impure air. They should be in accordance with the provisions of the rule 17a, b and c.
36. The drainage pipes and other pipes discharging water if built over higher terrace they should be air tight and should be got tested in the presence of the Municipal Engineer one authorized by him smoke should be sent inside the pipe and got confirmed that or does not leak put anywhere.
37. Ventilation to urinal trap: - When an urinal is built, if the pipes of the urinal are connected with the trap lines of the drainage every trap should have facilitate to let outer air in, it should be placed higher at the top line (head pipe) or at the top of the urinal line pipe whichever is at a higher level to enable free flow of air. the line connecting the trap and air pipe should face the pipe line carrying the water.
38. The air pipes should be of cast lead or iron as specified in rule 27 and fixed as stated in rule 29. If the pipes are to be laid inside a building it is enough they made of lead.
 1. If one for him or for others builds drainage it should never be connected with the urinal built of mud, ash are the container of the wastes.
 2. Open drainage :- If there is already an open drainage for the discharge of rain water or other discharged water, no permission will be granted for building a fresh open drainage for black water.
 3. A trap and a sand filter should be provided for every drainage of the house at place specified by the Municipal Engineer as per the instructions.
 4. The owner of the building should make every arrangement for the Municipal Engineer or his deputy to inspect all the aspects of the drainage pipes and traps.
 5. If one wants to build a drainage in a building or effect alterations for the existing ones he should apply with plan 30 days in advance by applying in the prescribed form obtainable paying rupees fifty.
 6. If the engineer suggests any alteration in the proposed plan a fresh plan should be prepared and got approved and such approved plan should be placed at the construction site.

7. The work should commence within three days after the approval is obtained from the Municipal Engineer. After the permission is obtained, except for the final completion at the road end, all other work can be finished by the applicant.
8. No one except the authorities of the municipality should undertake drainage work without the prior permission of the Municipal commissioner.
9. One who builds, effects alteration or attends to work related to it in a drainage should pay in advance the due fixed deposit and service charges as detailed below (service of discharge of black and gray water) :-

Area in sq.feet	Deposit Domestic	Deposit Non Domestic	Tariff Rs/Month Domestic	Tariff Rs/Month Non Domestic
500 sq.ft	5000/-	10000/-	100	150
501-1200 sq.ft	7500/-	15000/-	110	200
1201-2400 sq.ft	9000/-	25000/-	120	400
Above 2400 sq.ft	10000/-	50000/-	150	800

- He should inform in writing the municipal authorities before 7 days of the details of open drainage, the foundation and other provisions and their readiness for inspection. He should also inform the date and time of the closure of the drainage work (for the quarters, rest houses or commercial agencies).
10. No drainage pipes or other similar provisions should be connected with the municipal drainage unless and until they are inspected and certified to the effect that they are all in accordance with the rules and needs of the municipality, by the Municipal Engineer. Permission will be granted only on application for the connection supported by the copy of the order of approval. If it comes to the notice of the municipality that pollute water flows into the connection pipe or something, causes obstruction to the drainage, connection will be withdrawn.
 11. One who is desirous of connecting the drainage of his house with that of the municipality he should pay the expenses for it to the municipality. The amount so paid will under no circumstance be refunded. A plan and estimate should also be given to the municipality for effecting the pipe connection. A further amount of 10 percentage of the estimate should also be paid before the construction starts towards supervisory charges.
39. (11) 1. The plan should contain the following :-
- a) it should be of 2 cm to one ;
 - b) An index plan of 1:10 should be drawn with the new drainage proposed and manhole marked in red and the existing ones marked in a different color other than red. The correct address, the door number and the name of the street should also be furnished.
 - c) The cross diagram of the proposed connection should also be furnished;
 - d) The approved building plan of the municipality also be enclosed with any application for drainage connection.
- (12) Fines :- If one deviates from the above rules they will be subject to following punishments :-
- a) A fine of Rs. 1,000 will be levied; or
 - b) A further recurring fine of Rs. 100 per day also be levied if one continuous to deviate from the rules even after he receives a notice from the municipal authorities. An owner or a builder on his behalf who starts construction in deviation to the rules of the municipality will be issued a notice by the Municipal Commissioner to remove, alter or demolish it on a particular day.

Contrary to the notice of the builder on the owner fails to justify his construction and represents its needlessness to remove or alter the municipality has the right to remove or alter or demolished the construction and collect the charges for such acts from him. If one fails to abide by the conditions it is informed that he is liable for punishments stated above.

- (13) 1. In case of transfer of the right of the construction, the receipt of the payment of charges should also be transferred to the new names on proper application to the municipality. Otherwise such the connection will be considered illegal and additional service charges for connection and fixed deposit will be collected.
2. An additional surcharge of 18% will be collected from the owner if the service charges are not paid within 15 days or the receipt of the notice from the Municipal Commissioner.

GENERAL RULES

1. No one should damage the drainage pipe knowingly or not.
2. No one take away or steal the lids of the manholes, police action will be taken against such persons.
3. The municipal has rights to take action as per the sub rules against persons altering or damaging ventilation pipes for air facilities in the course of the drainage.
4. No pits for any erection of pandals or constructing building should be dug in the course of the drainage. If necessary they should do it only with the consent of the municipality. Otherwise a fine of Rs. 1,000 will be levied against any unapproved action.
5. Any block in course of the drainage should immediately be intimated to the municipal authorities. They should under no circumstances dig any pit themselves creating any stagnation of water.
6. The rainwater or other drainage water should not enter the manholes breaking away the holes. Serious action will be taken against them and punishment up to a fine of Rs. 1,000 will be levied when it comes to the notice of the municipal authorities.
7. No rubbish should be thrown out that would cover the manhole or their ventilation provision. Severe action will be taken against person who commits such and them liable to pay a fine of Rs. 100 per day.
8. Things stated in sub-rules 6a brought by the builder need be scrutinized and approved on satisfaction of standard specifications and permission granted for drainage connection. On completion of the work the owner or the builder should apply in the prescribed form and connection permission obtained from the commissioner, engineer or an authorized official. After the work is over, the completion report duly signed by the competent person should be furnished to the municipality.
9. If without the knowledge of the municipality, any work of repair for damage, leakage or the extensions of the service is undertaken against the sub-rules the license granted earlier will be cancelled, deposit forfeited and further proceedings initiated.
10. Every one who undertakes repair work in drainage system should produce the particulars of earlier sanction of its original construction for due scrutiny of the municipal authorities under proper acknowledgement.
11. All materials used and all works carried out are subject to the supervision and sanction of the Municipal commissioner, Engineer or any authorized officer.
12. The pipes, Y bends, traps and other accessories used in drainage connection should be on par with the things kept in the office or store of the municipality satisfying the specification of the standard control authorities, No pipes, bend or other accessories not approved by the municipality should be made use of.

13. If the drainage connections need to be discontinued or renewed the owner or the builder should apply to the municipality in writing and no license should undertake it without prior permission.
14. One who does the drainage connection work or repairs without observing the sub-rules or regulations or if he does not obey the order of the municipal authorities or if the work is found to be unsatisfactory and brought to the executive officer or commissioner his license will be cancelled, fine levied and further proceedings undertaken against him.
15. The estimate for drainage connection, repairs or extension should be in accordance with the sub-rules and other rules.

PUNISHMENT

Whoever deviates from the rules (even if a child deviates if he should be prevented from doing it) will be levied a fine of Rs. 100 and in case of continued deviation or compound (daily) fine of Rs. 100 will be levied and legal action through the police executed.

Place : Nagapattinam

Date :

Commissioner,
Nagapattinam Municipality.

APPLICATION FOR GETTING DRAINAGE CONNECTION FORM – A

To
The Commissioner,
Nagapattinam Municipality.

Sir,

I am the owner / resident of Door No.....in the street given below. I request you to make necessary arrangements to get underground drainage connection.

I hereby agree to remit security deposit and service charges as per the Rules. I hereby further agree to remit the cost and maintenance charges for the accessories for this purpose.

I hereby agree that if I / We desire to disconnect the above connection I will issue a notice before 30 days in writing to the Commissioner of Municipal Corporation.

Yours faithfully,

House Owner / Resident.