

ORDINANCE NO. 199

An Ordinance providing for the adoption of Building Sewer Specifications.

BE IT ORDAINED by the Council of the Town of Gig Harbor, Washington, as follows:

1.1 BUILDING SEWER PERMITS. The owner or his agent shall make application for a building sewer permit on a special form furnished by the Town. The permit application shall be supplemented by any plans, specifications, or other information considered pertinent in the judgment of the Sewer Superintendent, including, in case of a new building, a plan or diagram of the building sewer and storm drain facilities. A building sewer is defined as that part of the sanitary sewer system connecting the building plumbing to the public sewer.

1.2 BUILDING SEWER PERMITS - PROCEDURE FOR OBTAINING.
Building sewer permits shall be obtained in the following manner:

1. Building sewer permits shall be issued only upon proper application to the Town of Gig Harbor Town Clerk.
2. A permit which authorizes building sewer work in a public right-of-way or the connection with or opening into any public sewer other than through the normal opening of a wye, tee or stub may be issued to a registered side sewer contractor.
3. A permit which authorizes building sewer work on private property only may be issued to the owner of the property or to a registered side sewer contractor, but such permit shall require a registered side sewer contractor to connect the building sewer to a public sewer through the normal opening of a wye, tee or stub under the supervision of the Superintendent of Sewers or his representative.
4. Building sewer permits shall not be transferable. No authorized person, including any registered side sewer contractor, shall lay any pipe pursuant to any other person's permit.
5. The applicant for a building sewer permit shall supply the following information.
 - a. Owner's name
 - b. Address or property description and parcel number of property to be served

- c. Owner's mailing address
- d. Name and address to which bills shall be sent
- e. Registered side sewer contractor's name and proof of qualification under 1.3 of this code
- f. Legal description of property to be served
- g. All outside dimensions of building to be served
- h. Location of building on property to be served
- i. Purpose of building; and number of units
- j. Full course of the proposed building sewer

- 6. A building sewer permit shall be obtained and the fees therefor paid before any building sewer work is started.
- 7. No building sewer permit shall be issued before the main sewer is accepted by the Town and the property owner so notified.
- 8. The building sewer permit card must be posted on the job prior to commencing the work and must be readily accessible to the Building Department Inspector for the Town.
- 9. The registered side sewer contractor shall meet with the Building Department Inspector on the job whenever required.

1.3 SIDE SEWER CONTRACTOR REGISTRATION REQUIRED. For the purpose of assuring safe, quality construction and connection of building sewers to the public sewers of the Town and affording satisfactory protection to the sewer users of the Town, no person may construct, install, repair, reconstruct, excavate, or connect to the public sewers of the Town any building sewer, unless he is a side sewer contractor holding a valid current certificate of registration issued by the Department of Licenses of the State of Washington pursuant to Chapter 18.27 R.C.W. and shall be registered with the Town of Gig Harbor and shall have filed a valid \$5,000 street obstruction bond with the Town in favor of the Town of Gig Harbor. Provided, however, that if a stub from a public sewer has been carried to a property line, the property owner may connect a building sewer to a side stub with the approval of and under the supervision of the Sewer Superintendent.

All such registered side sewer contractors shall adhere at all times to the current requirements of the Town of Gig Harbor relating to building sewers, connections to public sewers, and sewer construction standards, including reasonable requirements of the Superintendent of Sewers relating to construction, installation, reconstruction and repair of building sewers, and shall be liable for all damages to the public sewers of the Town and related wastewater facilities caused by his work.

1.4 SIDE SEWER TEE - LOCATION. Tees shall be located in the following manner:

1. Connection will be made at the point designated by the Superintendent.
2. If a side sewer wye, tee or stub is not found at the measurement given by the Superintendent, the contractor shall prospect five feet in all directions from the measurement given and if not found, then notify the Superintendent.

1.5 INSTALLATION OF SIDE SEWER TEE: In the event that there is no side sewer tee installed in the existing sanitary sewer pipe at the proper location to serve the property being developed, a connection to the Town sewer shall be accomplished as follows:

1. The Town shall install the tee connection to the public sewer in the right-of-way or easement at a cost to the property owner as established by the Superintendent of Sewers. A registered side sewer contractor shall then be hired by the property owner to install the side sewer in the right-of-way to the property line in accordance with Town requirements; or in the event the Town directs.
2. A registered side sewer contractor shall be hired by the property owner to accomplish all work necessary to install the tee connection to the public sewer in the right-of-way or easement and to install the side sewer in the right-of-way to the property line all in accordance with Town requirements.

1.6 COSTS OF BUILDING SEWER BORNE BY OWNER. All costs and expense incident to the installation, connection and maintenance of the building sewer shall be borne by the owner. The owner shall indemnify the Town from any loss or damage that may directly or indirectly be occasioned by the installation of the building sewer.

1.7 BUILDING SEWER FOR EACH BUILDING - EXCEPTIONS. A single building sewer shall be provided for each building unless the connection of more than one building to a single building sewer is approved in writing by the Superintendent prior to the construction of such building sewer. No

more than one multiple dwelling, industrial, or commercial building shall be connected to a single building sewer, unless otherwise approved in writing by the Superintendent of Sewers.

If the building sewer is allowed to serve more than one building site, approved easement documents assuring that all properties involved shall have perpetual mutual use of the building sewer and side sewer, and having provisions for mutual maintenance and access for repair purposes, shall be signed by the recorded owners. This document shall be acknowledged and recorded with the County Auditor, and a copy thereof furnished to the Town Clerk.

1.8 REUSE OF OLD BUILDING SEWERS. Old building sewers, including septic tank lines, may be used only when they are found, on examination and test by the Superintendent of Sewers to meet all requirements of this code. This examination and test shall be at the owners' expense. The owner or his agent shall demonstrate to the Superintendent of Sewers that no connection to such building sewer or septic tank line exists which conveys any material prohibited by other ordinances of the Town of Gig Harbor.

1.9 BUILDING SEWER - SPECIFICATIONS. The building sewer, beginning two (2) feet from any building or structure, shall be installed utilizing any of the following approved materials:

1. Cast-iron soil pipe (ASTM Specification A-74)
2. Vitrified Clay pipe (ASTM Specification C-13)
3. Portland cement concrete pipe (ASTM Specification C-14) Extra Strength
4. Asbestos-cement pipe (ASTM Specification C428 or C296)
5. Polyvinyl Chloride (PVC) Gravity Sewer Pipe and Fittings (ASTM Specification D3033 - Type PSP or ASTM Specification D3034 - Type PSM)
6. Acrylonitrile - butadiene - styrene drain, waste and vent (ABS-DWV) plastic pipe and fittings, schedule 40 (ASTM Specification D-2661)
7. Other pipe material as specifically authorized by the Superintendent of Sewers.

All ASTM Specifications referred to shall be the latest issue.

Non-metallic building sewer or drainage piping shall not be run or laid in the same trench with water service pipes or any underground water pipes unless both of the following requirements are met;

1. The bottom of the water piping at all points shall be at least twelve (12) inches above the top of the sewer piping.
2. The water piping shall rest on a solid shelf at one side of the common trench.

If installed in filled or unstable ground, the building sewer shall be of cast iron pipe, except that non-metallic material may be accepted if laid on a suitable clean granular material or concrete bed or cradle as approved by the Superintendent of Sewers. Suitable clean-outs shall be located at the building drain connection and at all bends totaling 45° or greater and shall be located at a spacing no greater than 100 feet. A 6" x 6" x 6" tee shall be located at the property line end of the side sewer at the point of connection to the building sewer. The tee shall be installed in an upright position and plugged.

1.10 BUILDING SEWER - SIZE AND SLOPE. The size and slope of the building sewer shall be subject to the approval of the Superintendent of Sewers, but in no event shall the inside diameter be less than four inches for a single connection to a single family residence nor less than six inches inside diameter for approved connections to two single family or multiple residences. The size of building sewers for other connections shall be not less than 6" inside diameter. The slope of such building sewer shall be not less than 2% for four inch and six inch pipe. If the depth of the public sewer requires a lesser slope of the building sewer, such lesser slope must be approved by the Superintendent of Sewers, who shall require the owner to release the Town in writing from all liability for damages caused by such lesser slope.

1.11 BUILDING SEWER - ELEVATION - DIRECTION. Whenever possible the building sewer shall be brought to the building at an elevation below the basement floor. No building sewer shall be laid under any building or constructed within 30 inches of any foundation wall unless the building sewer is constructed of cast iron. The minimum cover of the house sewer shall be

24 inches on private property and 3' - 6" at the property line. The building sewer shall be laid on a uniform grade and in straight alignment insofar as possible. Changes in direction shall be made only with properly curved pipe and fittings, as approved by the Sewer Superintendent. Fittings shall be used at all changes in direction exceeding manufacturer's allowable joint deflection. Whenever any building drain is too low to permit gravity flow to the public sewer, sewage carried by such drain shall be lifted into the public sewer by approved mechanical means which shall be installed and operated at the owners' expense. Low lying houses shall have a check valve to prevent flooding in event of line blockage.

1.12 INFORMATION FROM TOWN. The owner of any building shall be responsible for obtaining from the Sewer Superintendent the location and elevation of the sewer wye, tee or stub at the point of connection and, in the case of new construction, for planning the building and plumbing to provide adequate slope for the building sewer. The applicant for permit shall be responsible for determining the available grade between building drain and sewer wye, tee or stub.

1.13 BUILDING SEWER - EXCAVATION - PIPE LAYING. All excavations required for the installation of a building sewer shall be open trench work unless otherwise approved by the Sewer Superintendent. Pipe laying and backfill shall be performed in accordance with the following specifications:

1. Pipe shall be carefully bedded, either by forming the trench bottom to support the bottom one quarter of the pipe or by over-excavating and bedding with granular material, thoroughly tamped and compacted under and along both sides of the pipe.
2. No rocks larger than 1-1/2 inches in diameter shall be left in the trench bottom and no rocks larger than 1-1/2 inches in diameter shall be placed nearer than six (6) inches away from the pipe in the trench backfill.
3. Bell and spigot pipes shall be laid with spigot end downstream and all changes of direction shall be made by suitable fittings. Trench shall be free of excess water during laying of pipe. When pipe laying is not in progress the pipe shall be kept tightly closed.
4. No backfill shall be placed over the pipe until the installation has been inspected and approved by the Building Department Inspector.

5. Backfill shall be placed by hand and be thoroughly tamped and compacted by hand to six inches above the top of the pipe.
6. Only a registered side sewer contractor may excavate in the Town right-of-way in the vicinity of a public sewer and stubs.
7. No downspouts, basement or outside storm drains shall be connected to a building sewer.
8. With respect to building sewer connections to public sewers, the excavation for the connection into the public sewer or stub serving the public sewer and the connection thereto shall be made only under the visual inspection of the Sewer Superintendent or his representative.

1.14 BUILDING SEWERS - JOINTS AND CONNECTIONS. All joints and connections shall be made gastight and watertight in accordance with approved specifications. Pipe jointing for all types of pipe material allowed under 1.9, Items 1 thru 5, shall be through utilization of flexible sealing gaskets conforming to the requirements of ASTM Specification D 1869, latest issue. Pipe jointing for ABS-DWV plastic pipe shall be solvent welded utilizing methyl-ethyl-ketone in accordance with ASTM Specification D 2235. Installations utilizing ABS-DWV pipe materials shall be required to install flexible type couplings at no greater than sixty (60) foot intervals to provide for adequate longitudinal expansion or contraction caused by temperature fluctuations of wastewater. All joints between dissimilar pipes shall be made with suitable adaptor couplings or special fabricated couplings approved by the Sewer Superintendent. Other jointing materials and methods may be used only by approval of the Sewer Superintendent.

1.15 BUILDING SEWER - CONNECTION TO PUBLIC SEWER. The connection of the building sewer to the public sewer shall only be made at an existing side sewer, wye or tee if available at a suitable location in the public sewer. If there is no properly located side sewer, wye or tee available, entry to the public sewer shall only be accomplished in a manner in accordance with provisions outlined in 1.4 and 1.5.

1.16 BUILDING SEWER - INSPECTION. The applicant for the building sewer permit shall notify the Building Department Inspector when the building

sewer is ready for inspection. The grade, materials, and manner of construction shall be in accordance with Sections 1.10 through 1.15 of this code. The Sewer Superintendent may require any test to demonstrate that the building sewer meets the standards required by the Town. Such tests, which shall be conducted at the expense of the building sewer permit applicant, may be accomplished by use of one or more of any of the following approved test methods:

1. Water Exfiltration Test

Building sewers shall be tested by means of a hydrostatic test equivalent to a minimum head of six feet at the lower end and a minimum of 2-ft head be placed at the upper end. Higher test heads may be required at the lower end up to twelve (12) feet. Temporary standpipes and intermediate tees for testing shall be provided in those sections where it is necessary to obtain the required head.

Test heads shall be measured from the crown of the lower end of the pipe section being tested.

Prior to the start of the test, the pipe shall be filled with water and allowed to stand overnight to permit normal absorption into the walls to take place. The hydrostatic head shall be maintained for such length of time necessary to satisfy the Town that the sewer does not show a leakage in excess of the amounts as follows:

ALLOWABLE LOSS
Gallons Per 100 Lineal Feet
of Sewer Per Hour

| <u>Pipe Size</u> | <u>H E A D</u> | | | | | | |
|----------------------|----------------|-----------|-----------|-----------|------------|------------|------------|
| | <u>6'</u> | <u>7'</u> | <u>8'</u> | <u>9'</u> | <u>10'</u> | <u>11'</u> | <u>12'</u> |
| 4" | 2.0 | 2.1 | 2.2 | 2.3 | 2.4 | 2.5 | 2.8 |
| 6" | 3.1 | 3.2 | 3.4 | 3.5 | 3.6 | 3.7 | 3.8 |
| 8" | 4.2 | 4.3 | 4.5 | 4.6 | 4.8 | 5.0 | 5.2 |

During filling of the pipe, a suitable trap approved by the Town must be provided at the upper end of the side sewer being tested to draw off the entrapped air.

All visible leaks in manholes and pipe other than beads or damp spots on the pipe shall be repaired. In the event it is difficult to locate the leaks, the contractor may be required to color the water with potassium permanganate or other suitable coloring material.

2. Low Pressure Air Test

Building sewers shall be tested by means of a low pressure air test described as follows. Air shall be slowly supplied to the plugged pipe installation until the internal air pressure reaches 4.0 pounds per square inch greater than the average back pressure of any ground water that may submerge the pipe. At least two minutes shall be allowed for temperature stabilization before proceeding further.

The pipeline shall be considered acceptable, when tested at the average pressure of 3.0 pounds per square inch greater than the average back pressure of any ground water that may submerge the pipe, if: (1) the total rate of air loss from any section tested in its entirety between manhole and cleanout structures does not exceed 2.0 cubic feet per minute, or (2) the section under test does not lose air at a rate greater than 0.0030 cubic feet per minute per square foot of internal pipe surface.

For building sewer installations of 4" and 6" pipe with a total length of less than 300 feet the requirements of this test shall be considered satisfied if the time required for the pressure to decrease from 3.5 to 2.5 pounds square inch greater than the average back pressure of any ground water that may submerge the pipe is not less than 18 seconds per 100 feet for 4" pipe and 40 seconds per 100 feet for 6" pipe.

3. Infiltration Test.

All building sewers which are installed in permeable material subject to high water tables from adjacent bodies of water may be tested by the infiltration test when allowed. Decision in all cases shall be made by the Town.

Infiltration for each one hundred (100) feet of pipe shall not exceed the following:

| <u>Pipe Size</u> | <u>Maximum allowable infiltration in gallons per 100 feet of building sewer per hour</u> |
|------------------|--|
| 4" | 1.6 |
| 6" | 2.4 |
| 8" | 3.2 |

All equipment required to make the foregoing tests, including but not limited to, plugs, hoses, blocking, air pumps, water and any other equipment necessary shall be furnished by the contractor.

The contractor shall make a trial test of the installation and shall satisfy himself that the test is satisfactory before calling for inspection. If an installation fails to meet test requirements then the contractor shall locate and repair or replace any defective materials or workmanship. The type of repair and extent of repair which may be allowed shall be subject to approval of the Town. After replacement or repairs have been made the installation shall be re-tested until acceptable.

1.17 PROTECTION OF EXCAVATIONS - RESTORATION OF PUBLIC PROPERTY

All excavations for building sewer installations shall be adequately guarded with barricades and lights in accordance with the requirements of the Sewer Superintendent so as to protect the public from hazard and all such persons, firms or corporations performing said excavations shall hold harmless and indemnify the Town for any and all damages and/or losses that the Town may incur due to said excavations. Streets, sidewalks, parkways and other public property disturbed in the course of the work shall be restored in a manner as required by and satisfactory to the Sewer Superintendent.

PASSED by the Town of Gig Harbor Council and approved by the Mayor of the Town of Gig Harbor, Washington, at a regular meeting thereof this 8th day of July 1974.

Attest:


DON AVERY, Town Clerk


JACK D. BUJACICH, Jr., Mayor