

Septic system and plumbing regulations

What professionals and regulators need to know

Due to the related nature of plumbing and subsurface sewage treatment system (SSTS) work, it is important to recognize whether proposed work is defined as plumbing, SSTS, or both. This determination ensures those involved understand who is authorized to complete specific work tasks and who the responsible administrative authority is for review, permitting, and inspection purposes.

Code jurisdictions

The Minnesota Plumbing Code regulates all water supply and drainage activities within a structure and premises, including the **building drain**, **building sewer**, and the **building sewer connected to an SSTS**.

Minn. R. ch. 4714 defines the **building drain** as the waste drainage piping that exits a structure, terminating two-feet outside of the building foundation. The **building sewer** is the pipe that connects to the end of the building drain and transports the waste away from the structure to an approved point of disposal. The **building sewer connected to an SSTS** is the pipe that connects a structure to a septic system. The building sewer connected to an SSTS is co-defined as both a plumbing and SSTS component in Minn. R. ch. 7080.

The plumbing code regulations stop where the building sewer ends. The plumbing code ends at the point that occurs first:

1. Property line
2. Start of public pipe ownership (such as a collection system)
3. Septic tank, holding tank, or point of treatment or disposal

SSTS regulations begin at the building sewer connected to an SSTS. However, the SSTS rules defer to the plumbing code standards for technical specifications for building sewers and any external sump, lift, or grinder pump or grease interceptor preceding an SSTS component. This creates a simplified overlap of program authority and enables both professions to conduct work in accordance with the appropriate requirements.

When multiple dwellings/units are connected together to discharge to a SSTS, and that SSTS does not require a state permit, the collection system component is regulated by the SSTS rules and design guidance.

Licensing requirements

All work determined to fall under SSTS jurisdiction must be authorized by the Minnesota Pollution Control Agency (MPCA), which issues licenses to businesses that conduct SSTS work. This is a statewide requirement.

All work determined to fall under plumbing code jurisdiction must be authorized by the Department of Labor and Industry (DLI) which issues plumbing contractor licenses and pipe layer bond registrations for businesses that conduct plumbing work. This is also a statewide requirement.

Work that is co-defined as both plumbing and SSTS may be completed by either a licensed plumbing contractor, a DLI registered pipe-laying contractor, or a licensed SSTS business in accordance with local and state requirements.

For industry professionals and regulators, this means:

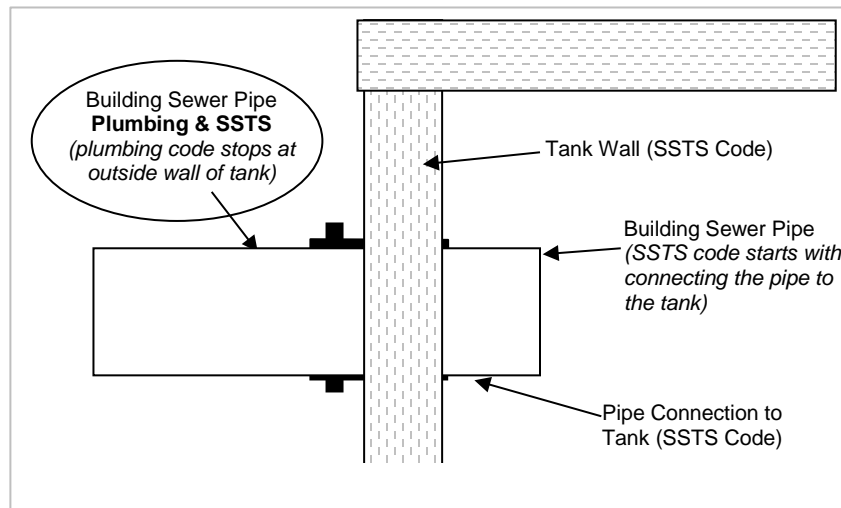
1. **MPCA licensed SSTS installers*** may install and repair external water service lines, building sewers, grinder pumps, sewage ejectors, and grease interceptors. The MPCA validates DLI pipe laying certification and bonding requirements as a part of the SSTS license issuance and renewal process and shares that information with DLI to authorize all pipe laying activities: <https://secure.doli.state.mn.us/ccldbond/>. SSTS installers are acting as pipe layers (see #5 below) when they install piping that is defined or co-defined as plumbing. They must provide adequate notice to the local septic system program **and** appropriate plumbing program representative when work requires an SSTS and/or plumbing inspection. They may also be required to provide a valid pipe layer card or personal plumbing license upon inspection.
*Other SSTS professionals may obtain DLI pipe laying bond registration by submitting their pipe laying card or personal plumbing license to the MPCA.
2. **MPCA licensed SSTS designers** must submit **building sewer plans** to DLI when designing new building sewers connected to SSTS for all “other establishments” that serve commercial, public, or industrial buildings, and residential buildings with five or more units. MPCA licensed SSTS designers are not authorized to design for water services. There is an application linked below that includes plan submittal instructions. Unless defined as a “state project” (http://www.dli.mn.gov/cclde_public.asp), all building sewers connected to SSTS in plumbing code-enforced areas are subject to local plumbing program inspection requirements.
3. **MPCA licensed SSTS inspectors** may permit and/or inspect building sewers connected to SSTS for compliance with the Minnesota Plumbing Code when a plumbing inspection is a) not required for single-family homes in non-code enforced areas, or b) the SSTS inspector has prior permission from the proper plumbing authority. This may be a building official or DLI plumbing program regional inspector for the project. <http://workplace.doli.state.mn.us/jurisdiction/>. Local SSTS programs may verify all SSTS and plumbing contractors that are authorized to install building sewers here: <https://secure.doli.state.mn.us/ccldbond/>.
4. **DLI licensed plumbing contractors** may design and perform the installation of plumbing systems (interior plumbing as well as building sewer and water services). The licensed plumber preparing plumbing plans and specifications must be the installer for the construction project. All plans must be submitted to DLI, or cities with formal plan review agreements, for approval and inspection permits prior to installation of any portion of the plumbing system.
5. **DLI registered and bonded pipe laying contractors** may perform installation of sewer and water services outside of buildings. DLI registered pipe laying contractors are not authorized to design plumbing systems including designs of building sewer and water services within the property line. Pipe laying contractors must ensure all sewer and water service plans are submitted to DLI or to cities with formal plan review agreements with DLI for approval and inspection permit prior to installation of sewer and water services.
6. **Plumbing officials** in municipalities that have adopted the State Building Code will issue plumbing permits and perform plumbing inspections within their jurisdiction. DLI performs plumbing plan reviews for “other establishments” for most municipalities. Some municipalities have formal plumbing plan review agreements with DLI and perform their own review, permitting, and inspection activities (except for “state projects”). The municipal plumbing permits and inspections may cover building sewer and water services for single family homes, multi-family homes, commercial buildings, industrial buildings, public buildings, etc. However, the review and

inspections of certain projects known as “state projects” are performed by DLI unless a formal plan review agreement is established *and* inspections are performed by an employee of the municipality that is a master plumber. Local plumbing programs may verify all SSTS and plumbing contractors that are authorized to install building sewers here: <https://secure.doli.state.mn.us/ccldbond/>.

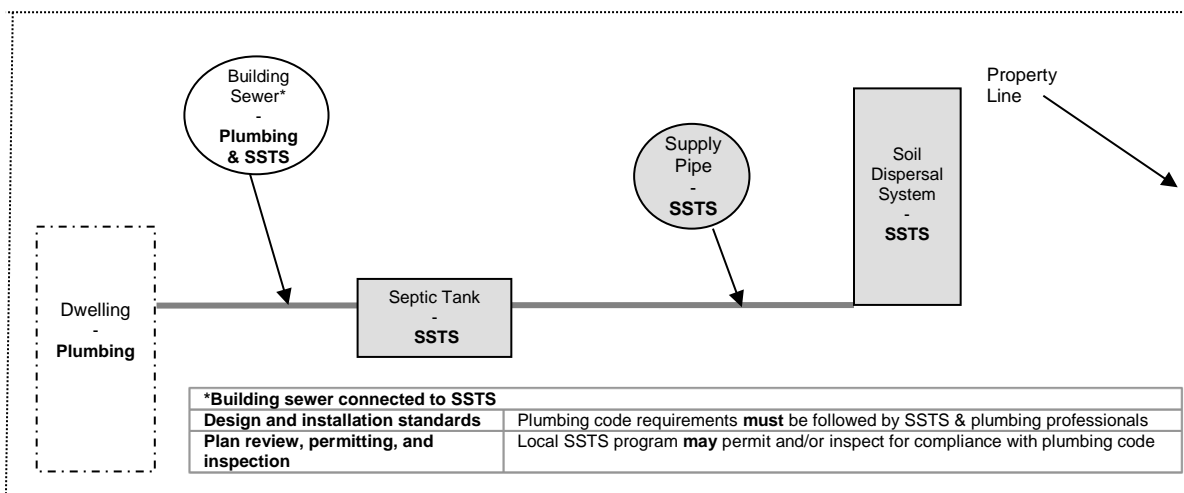
For non-code enforced areas of the state, DLI plumbing staff will perform plumbing plan reviews and inspections for plumbing systems including sewer and water services outside of buildings for all commercial, public, industrial, and residential buildings with five or more units – generally all “other establishments” under SSTS rules.

The following diagrams show common situations encountered in the field where the plumbing and the SSTS regulations overlap, and indicate which regulations and requirements apply. The appropriate plumbing officials can be located with this tool: <http://workplace.doli.state.mn.us/jurisdiction/>

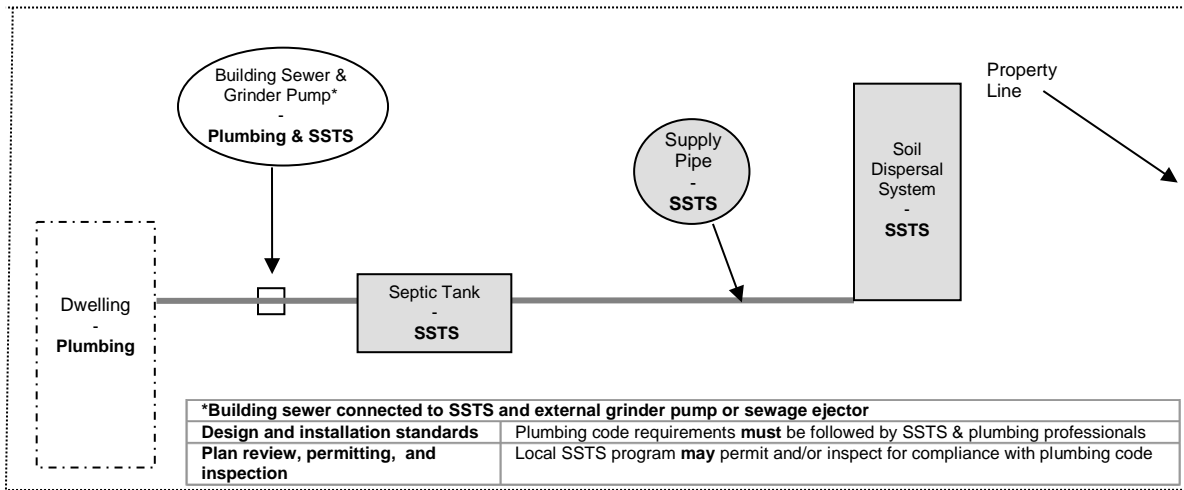
Scenario 1: Connections between the building sewer and sewage tank



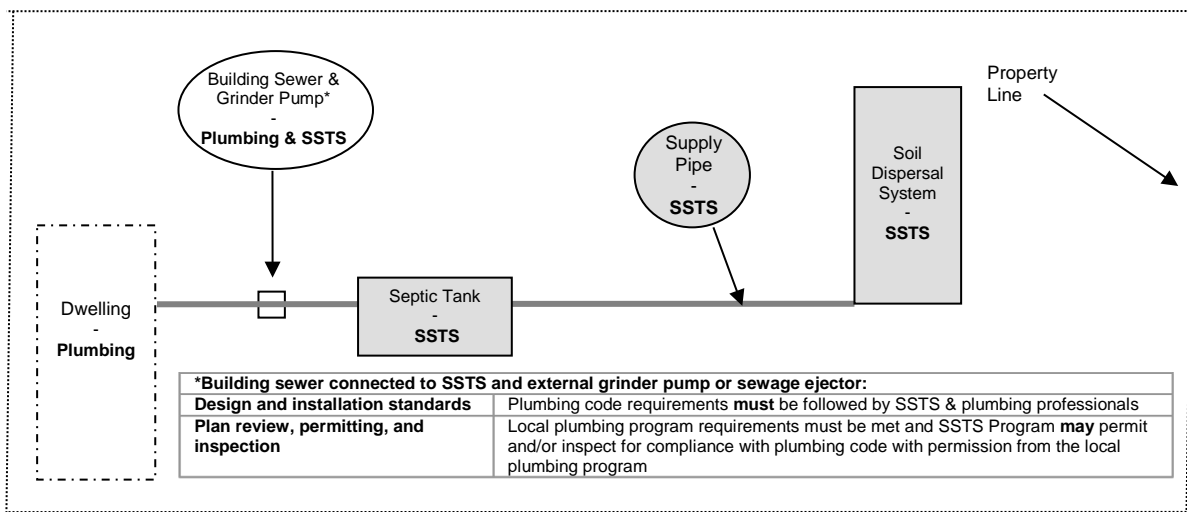
Scenario 2: Single family dwelling on an individual lot with an SSTS, in areas of the state that **do not** locally enforce the plumbing code.



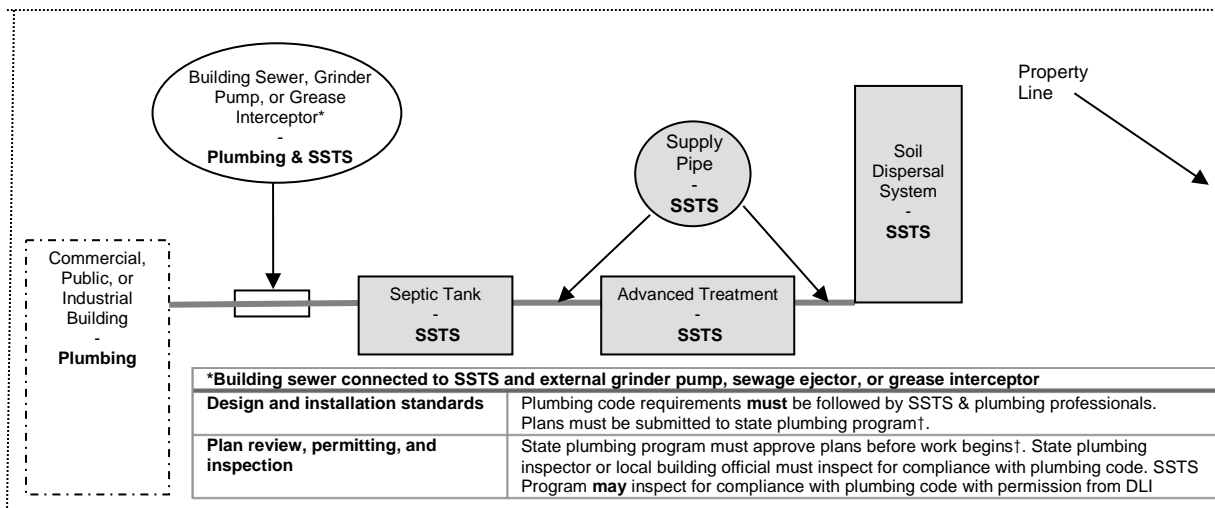
Scenario 3: Single family dwelling on an individual lot with an SSTS that uses an outside grinder pump or sewage ejector, in areas of the state that **do not** locally enforce the plumbing code.



Scenario 4: Single family dwelling on an individual lot with an SSTS with or without an outside grinder pump or sewage ejector, in areas of the state that **do** locally enforce the plumbing code.

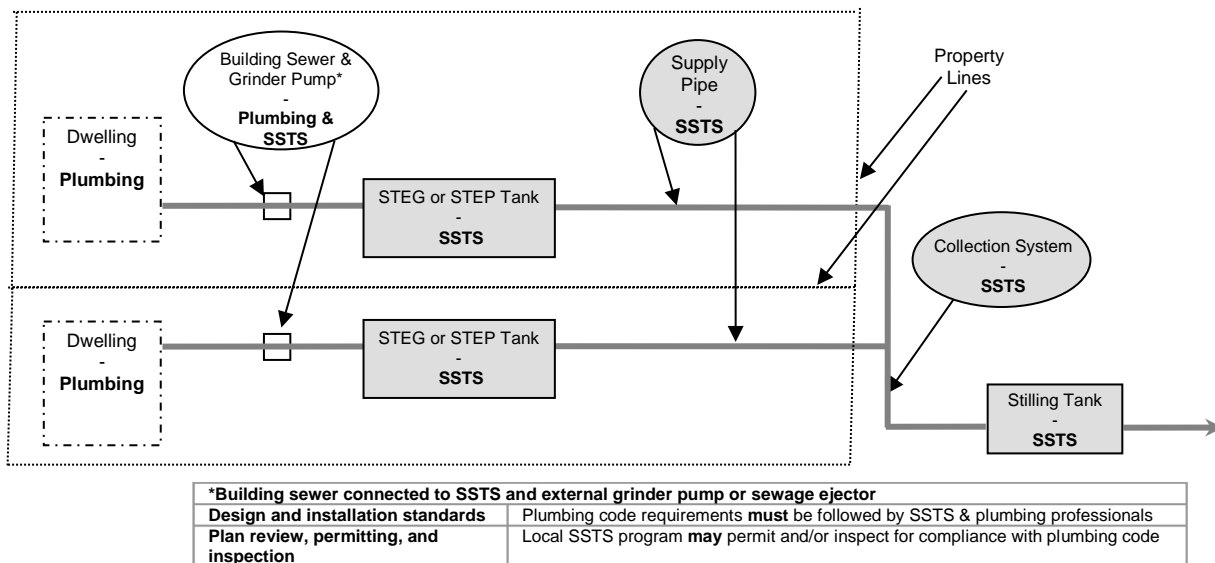


Scenario 5: Commercial, public, or industrial building on an individual lot with an SSTS with or without an outside grinder pump, grease interceptor, or sewage ejector, in any area† of the state.

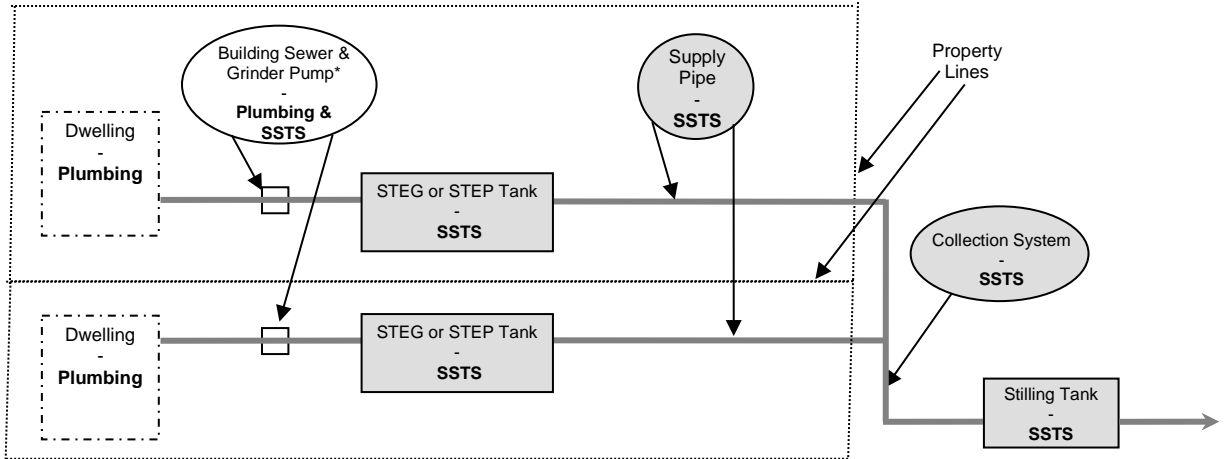


†Except for "state projects", cities that have plumbing plan review agreements with DLI approve plans and inspect work.

Scenario 6: Individual dwellings on multiple lots served by septic tank effluent gravity (STEG) or septic tank effluent pressure (STEP) sewer system to offsite collection and SSTS, in areas of the state that **do not** locally enforce the plumbing code.

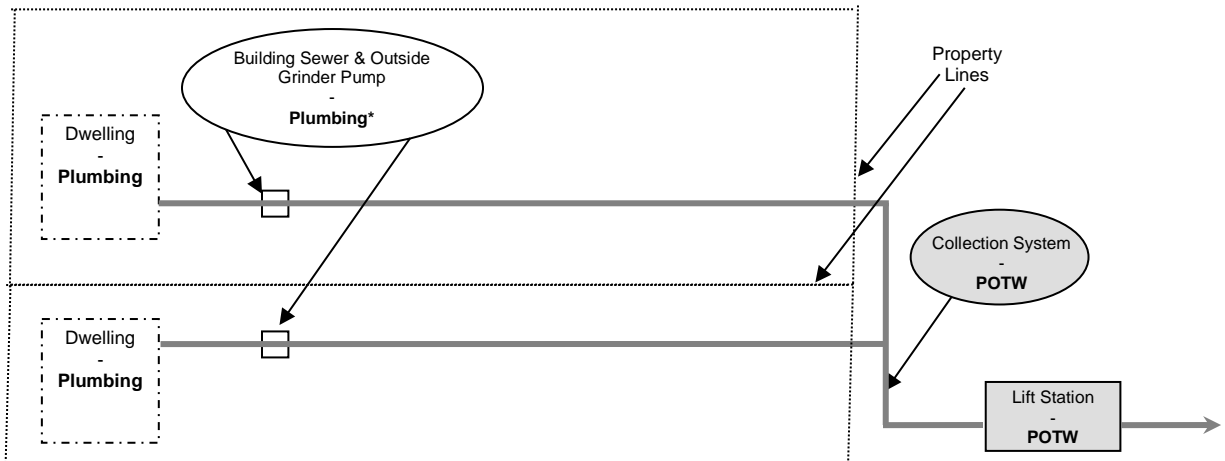


Scenario 7: Individual dwellings on multiple lots served by STEG or STEP sewer system to offsite collection and SSTS, in areas of the state that **do** locally enforce the plumbing code.



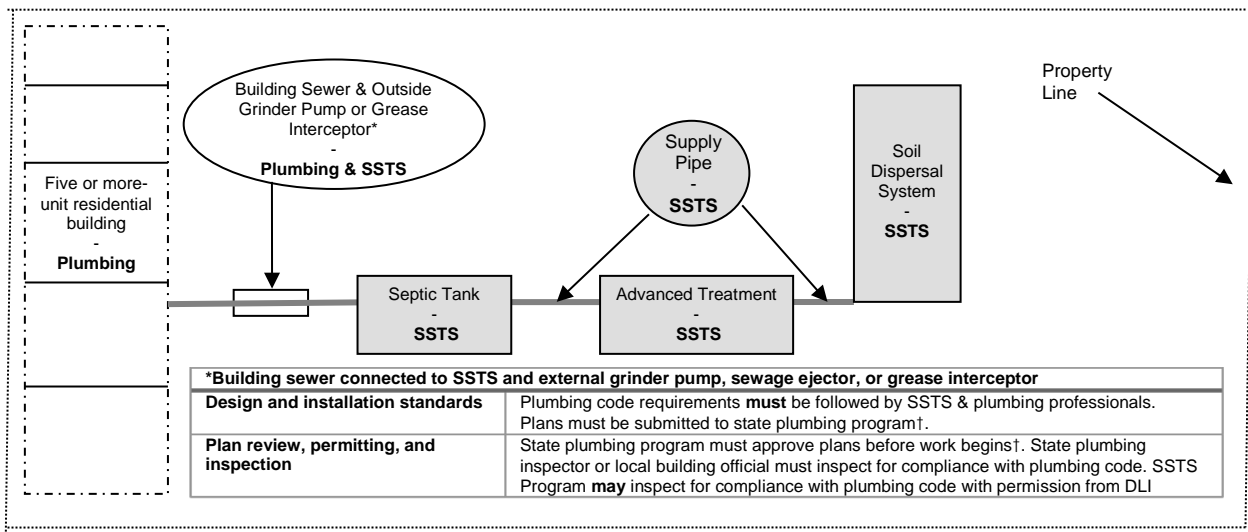
*Building sewer connected to SSTS and external grinder pump or sewage ejector:	
Design and installation standards	Plumbing code requirements must be followed by SSTS & plumbing professionals
Plan review, permitting, and inspection	Local plumbing program requirements must be met and SSTS Program may permit and/or inspect for compliance with plumbing code with permission from the local plumbing program

Scenario 8: Individual dwellings on multiple lots with or without an outside grinder pump or sewage ejector served by gravity or pressure sewer to a publically owned treatment works (POTW) in any area of the state.



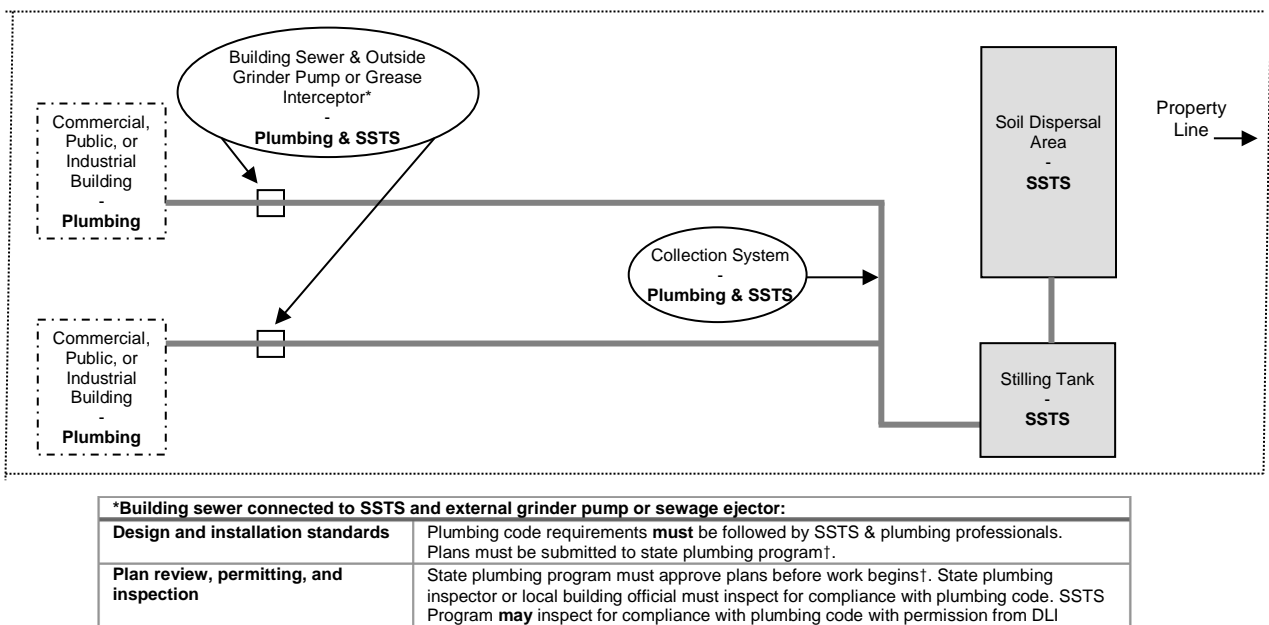
*Building sewer and external grinder pump or sewage ejector:	
Design and installation standards	Plumbing code requirements must be followed. SSTS professional may install but may not design
Plan review, permitting, and inspection	Local plumbing program requirements must be met

Scenario 9: Five or more unit-residential building on an individual lot with an SSTS with or without an outside grinder pump or sewage ejector, in any area of the state.



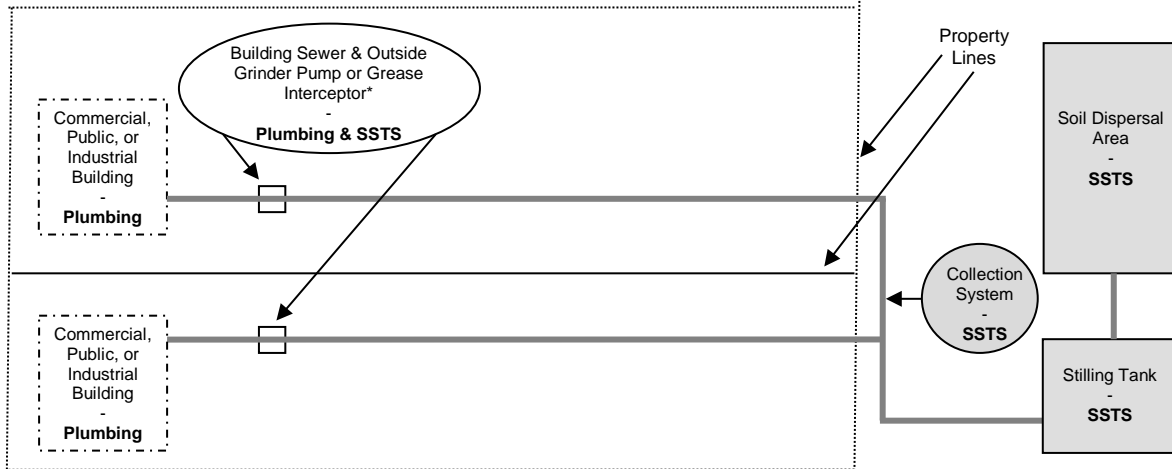
†Except for “state projects”, cities that have plumbing plan review agreements with DLI approve plans and inspect work.

Scenario 10: Commercial, public, or industrial building(s) on an individual lot with an SSTS with or without an outside grinder pump, grease interceptor, or sewage ejector, in any area of the state.



†Except for “state projects”, cities that have plumbing plan review agreements with DLI approve plans and inspect work.

Scenario 11: Commercial, public, or industrial building on multiple lots with an SSTS with or without an outside grinder pump, grease interceptor, or sewage ejector, in any area† of the state.



*Building sewer connected to SSTS and external grinder pump or sewage ejector:	
Design and installation standards	Plumbing code requirements must be followed by SSTS & plumbing professionals. Plans must be submitted to state plumbing program†.
Plan review, permitting, and inspection	State plumbing program must approve plans before work begins†. State plumbing inspector or local building official must inspect for compliance with plumbing code. SSTS Program may inspect for compliance with plumbing code with permission from DLI

†Except for “state projects”, cities that have plumbing plan review agreements with DLI approve plans and inspect work.

Additional information

Find more information about SSTS professionals and building sewers in this factsheet:

<https://www.pca.state.mn.us/sites/default/files/wq-wwists3-26.pdf>

Find a list of all contractors authorized to install or repair external water service lines, building sewers, grinder pumps, sewage ejectors, and grease interceptors: <https://secure.doli.state.mn.us/ccldbond/>

Minnesota State Building Code Jurisdiction Directory: <http://workplace.doli.state.mn.us/jurisdiction/>

Find more information about building sewer specifications here:

http://www.dli.mn.gov/CCLD/PDF/pe_usc.pdf

Find more information about collection system specifications here:

<https://www.pca.state.mn.us/sites/default/files/wq-wwists4-44.docx>

Plumbing Program Plan Review Unit webpage: <http://www.dli.mn.gov/CCLD/PlanPlumbing.asp>

Plumbing Plan Review Application: http://www.dli.mn.gov/CCLD/PDF/pe_plumbplanrevapp.pdf

Plumbing Permit and Inspection information:

http://www.dli.mn.gov/CCLD/PDF/pe_inspection_fee_submittal.pdf

For more information on the Minnesota Plumbing Code, please visit <http://www.dli.mn.gov/>. For more SSTS information, please visit the MPCA at <http://www.pca.state.mn.us/programs/ists/> or call us at 651-296-6300 or toll free at 800-657-3864.