



PIMA COUNTY

WASTEWATER RECLAMATION
201 NORTH STONE AVENUE
TUCSON, ARIZONA 85701-1207

JACKSON JENKINS
DIRECTOR

PH: (520) 724-6500
FAX: (520) 724-9635

September 8, 2016

To: Pima County Wastewater Stakeholders and Served Jurisdictions

From: Pima County Regional Wastewater Reclamation Department

RE: **Explanation of House Connection Sewers**

In most communities, residential houses are connected to several services such as electricity, gas, water, and sewer. For each service, there is a specific location where the service line ownership becomes private. For example, the water line becomes privately owned on the house side of the water meter, which is located at the property line. There is often confusion regarding ownership of the sewer service line, or House Connection Sewer (HCS)¹, because the sewer line does not have a meter to easily differentiate ownership. The following narrative explains what an HCS is and how to determine where private ownership begins. In addition, the construction process for residential subdivision sewer is described, with an emphasis on Pima County's role in both the public and private HCS construction.

Ownership and Responsibility for House Connection Sewers

The term "House Connection Sewer" is defined at Pima County Code (P.C.C.) § 13.20.020(26) as "the private sewer between the residential building and the public or private collection sewer."²

Although not defined in County code, a "collection sewer" is a sewer that receives wastewater flows from multiple residences or buildings. A collection sewer is typically an 8-inch diameter pipe located under the road pavement, running parallel to the road alignment. An HCS is the pipe (typically 4 inches in diameter) connecting a house to the collection sewer (see Figure A).

Per the HCS definition, an HCS is a *private* sewer. Each HCS connected to the Pima County wastewater conveyance system is owned by the property owner receiving sewer service through that connection. This ownership consists of the pipe running from the house to the public sewer, including the portions of the HCS within public or private right-of-ways³, easements, or common areas. Because Pima County does not own any portion of the HCS, the building owner is responsible for cleaning and maintaining the full length of the pipe, *including the portion of the HCS located outside the property boundary*. For some unique situations, pursuant to P.C.C. § 13.20.070, Pima

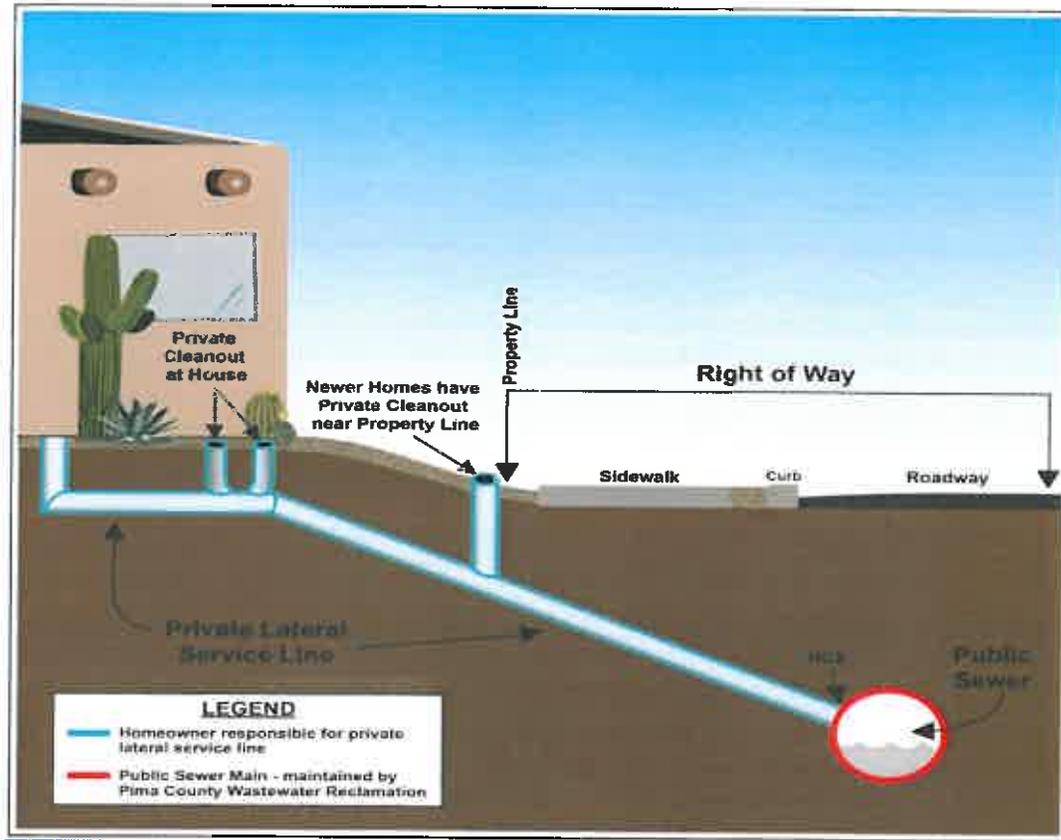
¹ House Connection Sewers are sometimes called "laterals" or for non-residential connections "Building Connection Sewers".

² The County also uses the term "building collection sewer" defined at P.C.C. § 13.20.020(7) as "the private sewer between the commercial or industrial building or any building that does not qualify as residential under this chapter and the public or private sewer collection line."

³ Location in the right-of-way does not include any ownership interest beyond a limited license to install and maintain the HCS, and right-of-way permits are required to conduct maintenance or repair activities in the right-of-way.

County will repair the portion of a damaged HCS located within the public right-of-way. However, the County has no responsibility to, and will not, repair portions of an HCS located outside the public right-of-way.

Figure A



Subdivision Sewer Design, Approval, and Construction Processes

The construction of sewers in a new residential subdivision is done in two phases: the site infrastructure phase and the house construction phase. The public sewer and those portions of the private HCS within the right-of-way are constructed during the site infrastructure phase. In this phase sewers are installed concurrent with other underground utility work in the right-of-way, and before the roads are paved and curbs and sidewalks installed. The remaining private sewer extensions to the houses are completed during the house construction phase.

Site Infrastructure Phase

Site infrastructure work starts with the design of a collection sewer system, where the developer's engineer produces a set of construction drawings (Public Sewer Improvement Plans). These collection sewers are transferred to public ownership at the completion of construction. The collection sewers must be designed and constructed pursuant to the County's public sewer design standards. The County reviews the construction drawings and approves them only when the drawings are in compliance with those standards. The construction drawings also include the

locations and details for HCS connections. The construction drawings will reference County sewer details for making the HCS connection (tee or tapping saddle) to the collection sewer and the HCS extension (stub-out) to the property line. The design for the HCS connection and stub-out is only reviewed to verify consistency with County sewer standards.

After approval of the design, but prior to constructing the collection sewers, the sewer contractor acquires a County sewer construction permit which, among other things, initiates inspection of the collection sewer construction by Pima County. The construction of the collection sewers typically consists of manholes and 8-inch diameter pipe placed beneath the streets throughout the subdivision. While installing the collection sewers, the contractor will also install HCS stub-outs from the collection sewer to the property lines in order to provide connections to the houses.

County staff inspect the installation and witness the testing of the public collection sewers. Because HCS stub-outs are typically connected to the collection sewer as it is constructed, when the sewer contractor tests the collection sewer pipe for water-tightness, the HCS stub-outs existing at that time are plugged at the end and part of the test. The inspector does not specifically inspect or otherwise approve the HCS stub-outs. After construction is completed, all test results are satisfactory, and the Discharge Authorization is issued, the collection sewer ownership is formally transferred from the developer to Pima County, who then becomes responsible for collection sewer operation and maintenance. At that point the collection sewer, but not the HCS stub-outs, becomes a public sewer.

Following acceptance of the collection sewer into the public system, the County issues a Public Sewer Acceptance letter (previously called an HCS Release Letter), which notifies the developer and the local jurisdiction's building safety department the public sewer has been accepted and can now receive wastewater discharge from the residential houses. The Public Sewer Acceptance Letter is not an approval of individual HCS connections, since the notification is issued prior to the first house being completely connected to the public sewer.

House Construction Phase

As discussed previously, the site sewer contractor typically installs HCS stub-outs at locations established on the construction drawings. Each stub-out is an extension and an integral part of the private sewer service line from the respective house, and as such it is not part of the public sewer.

The house construction phase starts at the end of site infrastructure construction. The developer or homebuilder begins by acquiring building permits from the local jurisdiction so building inspectors can inspect and accept the work done by the building contractor. With a building permit for each lot, the building contractor begins constructing houses on the lots within the subdivision. During the homebuilding process, the building contractor excavates and exposes the end of the HCS stub-out installed earlier by the sewer contractor. From this exposed pipe end, the contractor installs the balance of the private HCS pipe into the property where it is connected to the house sewer plumbing. This point of connection between the two private sewer pipes is often incorrectly assumed to be the separation between public sewer and private sewer. The private HCS is usually installed by two different contractors due to the timing of construction, with each private contractor basically

installing a portion of a single private sewer pipe that serves a private individual lot. At no time during house construction are the HCS pipes inspected by Pima County wastewater inspectors.

The local jurisdiction's building safety/development services department inspects the property's construction activities until the house is completed and all inspections are approved. At this time the house is approved for occupancy. With a home sale, the title and ownership of an individual lot and house is transferred to a private homeowner. The transfer of ownership also conveys the ownership of, and responsibility to operate and maintain, the HCS from where it starts in the house at a sink or toilet all the way to the point of connection to the public sewer (including the connection itself). While subdivision sewer construction is sometimes done in a slightly different order, in the end the distinction between a public sewer and a private sewer does not change.

The Pima County Regional Wastewater Reclamation Department is responsible for managing the sewer system owned by Pima County. Pima County does not own all public sewers in the County, so a customer should verify who their sewer service provider is for future reference. If you have any questions regarding the above information, please feel free to contact us.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jackson Jenkins", is written over a horizontal line.

Jackson Jenkins, Director

Pima County Regional Wastewater Reclamation Department